Board of Education

REGULAR MEETING

Thursday, March 21, 2024 – 5:30 p.m.

Waterbury Arts Magnet School, 16 South Elm Street, Waterbury, CT

This meeting will be broadcasted live on the City of Waterbury's Government Access Channel (Comcast 96, Frontier 6096) and streamed live on YouTube at https://youtu.be/p0WmtkL1Iho.

A G E N D A

1. Silent Prayer

2. Pledge of Allegiance to the Flag

3. Roll Call

4. Communications

a) Email communication dated January 18, 2024 from CABE regarding Policy Highlights.
b) Copy of communications dated January 29, 2024 from Civil Service certifying Denise Willis and Vanessa Otero for the position of Paraprofessional II.
c) Copy of communication dated January 30, 2024 from Civil Service certifying Courtney Jones for the position of Paraprofessional II.
d) Copy of communication dated January 31, 2024 from Civil Service to Joel De los Santos regarding acceptance of employment offer for the position of Food Service Worker.
e) Copy of communication dated February 5, 2024 from Civil Service certifying Ricardo Torres for the position of Maintainer I.
f) Copy of communication dated February 6, 2024 from Civil Service certifying Nathaniel Alvarado for the position of Maintainer I.
g) Copy of communication dated February 12, 2024 from Civil Service certifying Mandie Dreher for the position of Food Service Helper Lead.
h) Copy of communication dated February 14, 2024 from Civil Service to Aaron Watson regarding acceptance of employment offer for the position of Food Service Worker.
i) Copy of communications dated February 15, 2024 from Civil Service to Katiria Rosario and Dorothy Copeland regarding acceptance of employment offer for the position of Food Service Worker.
j) Copy of communications dated February 21, 2024 from Civil Service to Courtney Swain and Tiyonna Christie regarding acceptance of employment offer for the position of Food Service Worker.
k) Email communication dated February 22, 2024 from Tim Moynahan regarding hottest debate in CT education.
l) Copy of communications dated February 22, 2024 from Civil Service to Crystal Canada and Alan Turner regarding acceptance of employment offer for the position of Food Service Worker.
m) Copy of communications dated February 22, 2024 from Civil Service certifying Ricard Pacheco and Michael Crowther for the position of Maintainer II.
n) Copy of communication dated February 23, 2024 from Civil Service to Zara Munguia Morales regarding acceptance of employment offer for the position of Food Service Worker.
o) Copy of communications dated February 26, 2024 from Civil Service certifying Javiera Rivera for the position of Maintainer II.
p) Copy of communications dated February 27, 2024 from Civil Service certifying Taylor Brooks and Brittany Shanahan-Petitti to the position of Paraprofessional I.
q) Email communication dated February 28, 2024 from CABE regarding Policy Highlights.

5. Public Addresses the Board - All speakers are encouraged to submit prepared written statements to the Commissioners. Comments shall be limited to a maximum of five minutes. There will be no responses this evening to any questions or concerns raised; they will be referred to the Administration for review and response.

6. Superintendent's Announcements

7. President's Comments

8. Student Representative Comments

9. Consent Calendar

9.1 *Committee on Finance:* Request approval of Amendment Two (2) to the Professional Services Agreement with Rubicon West, LLC for Online Curriculum and Lesson Planning Warehouse.

9.2 *Committee on Building & School Facilities:* Use of school facilities by school organizations and/or City departments.

9.3 *Committee on Building & School Facilities:* Use of school facilities by outside organizations and/or waiver requests.

10. Items removed from Consent Calendar

11. Committee on Finance – Commissioner Orso

11.1 Request approval of a Construction Contract (RFP #7930) with Silktown Roofing for Kennedy High School Roof Replacement.

11.2 Request of a Construction Contract (RFP #7932) with Silktown Roofing for Sprague School Roof Replacement.

11.3 Request of a Construction Contract (RFP #7931) with Silktown Roofing for Tinker School Roof Replacement.

12. Committee on Policy & Legislation – Vice President Brown

12.1 Request approval of new policy #4115.3 – Coaches Evaluation.

12.2 Request approval of revised policy #6146 – Graduation Requirements.

12.3 Request approval of revised policy #7230.2 – Indoor Air Quality/Heating, Ventilation, and Air Conditioning (HVAC).

13. Committee of the Whole – Vice President Brown

13.1 Request approval of Waterbury Public School's "Increasing Educator Diversity Plan - 2024".

13.2 Request approval of a Facility/Equipment User Agreement with Connecticut State Community College.

13.3 Request approval of the new position of Director of Multilingual Education.

13.4 Request approval of a Worksite Agreement with Northwest Regional Workforce Investment Board (NRWIB).

13.5 Superintendent of Schools employment contract.

14. Superintendent's Notification to the Board

14.1 Athletic appointments:

Name	*Position*	*Location*	*Effective*
Aresti, Robert	Baseball Coach	WSMS	03/04/24
Catricala, Julie	Assistant Softball Coach	KHS	03/16/24
Dubois, Zachary	Co-op Golf Coach	n/a	03/16/24
O'Toole, Laura	Head Volleyball Coach	WCA	08/15/24

14.2 Grant funded appointments:

Name	*Position/Location*	*FT/ PT*	*Rate*	*Union*	*Funding*	*Effective*
Boutagy, Laurice	Tutor WAMS	PT	$34/hr	NONBOE	Title I/A 23-25	02/15/24
Boyd, Donald	Prev. Specialist NEMS	FT	$22/hr	F UPSEU 69	Priority 23-24	02/12/24
Callahan, Tanner	Teacher Apprentice/MMS	PT	$17.14/hr	NONBOE	ESSER III 21-24	02/15/24
Cardona, Elizabeth	Parent Liaison Hopeville	FT	$20.06/hr	UPSEU 69	Title I/A 23-25	02/15/24
Diorio, Meghan	Tutor Bucks Hill	PT	$25/hr	NONBOE	Title I/A 23-25	02/29/24
Estrada, Ann	Tutor Holy Cross	PT	$25/hr	NONBOE	Title I/A 22-24	02/08/24
Green, Joshua	Network Spec. I 12 Month/WSMS	FT	$22.17/hr	UPSEU 69	Title I/A 23-25	02/22/24
Green, Samone	Classroom Assist. Sprague	FT	$21.47/hr	UPSEU 68	SR Priority 23-24	02/15/24
Kenneson, Sandra	Parent Liaison Maloney	FT	$20.06	UPSEU 69	Title I/A 23-25	02/22/24
Martinez-Sosa, Daybelys	Secretary Liaison to the Homeless	FT	$18.54/hr	F UPSEU 69	Title I/A 23-25	02/29/24
Morris, Ruddia	Network Spec. I 10 month/Sprague	FT	$22.17/hr	UPSEU 69	Title IV/A 23-25	02/29/24
Plourde, Malerie	Network Spec. I 10 month/WAMS	FT	$22.17/hr	UPSEU 69	ID Magnet WAMS 23-24	02/22/24
Reese, Frank	Network Spec. 2 12 month/Supply	FT	$29.30/hr	UPSEU 69	Title I/A 23-25	02/22/24
Smith, Kathryn	Tutor Bunker Hill	PT	$25/hr	NONBOE	Title I/A 23-25	02/29/24

14.3 Miscellaneous before/after-school program appointments:

Name	*Position/Program*	*Location*
Gartman, Alexandera	Teacher/After School Star Program	WMS
Gluz, Debra	Teacher/After School Star Program	WMS
Grossman, Melissa	Teacher/After School Star Program	WMS
LaSalle, Ashley	Teacher/After School Star Program	WMS
Thornton, Micole	Teacher/After School Star Program	WMS
Zupperoli, Robert	Teacher/After School Star Program	WMS
Geffken, Melissa	Teacher/21st Century	
Crocetto, Kyle	Program Coordinator/Books & Basketball	Wilson FRC
Fengler, Kelly	Teacher/Books & Basketball	Wilson FRC
Guerrera, Sara	Sub/Books & Basketball	Wilson FRC
Jones, Catherine	Teacher/Books & Basketball	Wilson FRC
Roy, Brittany	Sub/Books & Basketball	Wilson FRC
Jester, Kristen	Social Worker/Books & Basketball	Reed FRC
Price, Deborah	Para/Books & Basketball	Reed FRC

14.4 Extended School Hours (ESH) appointments:

School	*Last name*	*First Name*	*Assignment*
Wilson	Guerrera	Sara	Teacher
Wilson	Fengler	Kelly	Teacher

14.5 Miscellaneous appointments:

Name	*Position/Program*
Murphy, Amy	Extended School Year (ESY) Coordinator
Braun, Brooklyn	Academic Academy Student Selection Committee Member
Burgess, Susan	Academic Academy Student Selection Committee Member
Garcia, Sharyn	Academic Academy Student Selection Committee Member
Gluz, Debra	Academic Academy Student Selection Committee Member
Gordon, Kimberly	Academic Academy Student Selection Committee Member
Krampitz, Paula	Academic Academy Student Selection Committee Member
O'Connor, Timothy	Academic Academy Student Selection Committee Member
Poveda, Carlos	Academic Academy Student Selection Committee Member
Shortt, Katia	Academic Academy Student Selection Committee Member
Bayliss, Michelle	ELA Curriculum Writing Team
Franks-Blanchard, Lauren	ELA Curriculum Writing Team
Riddick, DeAndre	ELA Curriculum Writing Team

14.6 Retirements:

Name	*Assignment*	*Effective*
Delaney, Robert	Special Education Supervisor	06/30/24
DiPietro, Aline	WSMS/PE-Health	06/30/24
Dizenzo, Vincent	WMS/Special Ed	06/30/24
Hastings, Paula	Reed/Special Ed	06/30/24
Motowidlo, Diane	Duggan/Bilingual	06/30/24
Smyth, Susan	WMS/Theater	06/30/24
Valenti, Michele	WMS/Computer & Business	06/30/24
Washington, Brenda	WAMS/Science-Biology	06/30/24

14.7 Resignations:

Name	*Assignment*	*Effective*
Abuhamed, Hoda	WMS/Tech. Ed-Information-CAD	03/15/24
Cassella, Mark	WMS/ELA	02/28/24
DiBella, Lisa	Washington/Grade 1	03/13/24
Holda-Vaccaro, Michelle	WSMS/Grade 6 ELA	03/01/24
Maghini, Michele	Sprague/K	03/15/24
Napp, Matthew	Carrington/ELA	03/14/24
Vidal, Nelly	R. C. International/Biliteracy Coach	06/30/24

15. Committee Chair Reports

16. Adjournment

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE ON FINANCE

Item #9.1

March 21, 2024

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee on Finance moves that the Waterbury Board of Education approve Amendment Two (2) to the Professional Services Agreement with Rubicon West, LLC for Online Curriculum and Lesson Planning Warehouse.

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE ON BUILDING & SCHOOL FACILITIES

Item #9.2

March 21, 2024

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee on Building & School Facilities moves that the Waterbury Board of Education approve the use of school facilities, at no charge, by the following school organizations and/or City departments:

GROUP	FACILITIES AND DATES/TIMES
Dr. Boatright	Crosby café: Tuesday, February 27, 6:00pm 7:30pm, College/Career Night Kennedy café: Thursday, March 7, 6:00pm – 7:30pm, College/Career Night Career Acad. café: Wednesday, March 13, 6:00pm – 7:30pm, College/Career Night WAMS Atrium: Tuesday, March 19, 6:00pm – 7:30pm, College/Career Night Wilby café: Thursday, March 28, 6:00pm – 7:30pm, College/Career Night
Mayor's Office	International School: Tuesday, March 19, 5:15pm – 8:00pm (Public meeting with EPA)
C. Katz	WAMS atrium: Tuesday, March 19, 5:00pm – 9:00pm (Parents meet & greet)
M. Monroe	Rotella Comm. Room: April 22 & 23, 9:05am – 3:05pm (resident artist working with Gr. 4)
J. Frenis	West Side media center: March 12, April 9 and May 14, 3:00pm – 4:30pm (Instructional meetings with district staff)
J. Tulley	Crosby auditorium: Thursday, May 30, 5:00pm – 7:30 pm (spring music concert)
Dr. White	WAMS library: Tuesday, March 5, 3:00pm – 5:30pm (School Equity team training)
H. Maxson	WAMS Recital Hall & Apron Stage and fine arts rooms: August 22, October 2, December 4, 2024, 9:00am – 3:00 pm
D. Baslie	Wilby gym: Thursday, October 3, 2024, 8:30am – 11:00am (College Fair)
V. Demirali	Sprague gym: Tuesday, March 19, 4:30pm – 6:30 pm, (Family Literacy Night) Monday, April 8, 5:00pm – 7:00pm, (Science Family Night-STEM)
PAL Sgt. C. Amatruda	Career Academy room: Tues., Wed., Thurs., April 23 thru June 27 2:00-5:00pm (Beyond Bleacher Leadership Academy)
Housing Authority C. D'Orso	Duggan café: Wed., March 20, 5:30-6:30 pm (meeting with tenants from co-op)
Registrar of Voters T. DeCarlo	Tues., April 2, 5:00am – 9:00pm (attached list of schools used) (Presidential Preference Primary)
D. Bakewell	Maloney café: Thurs., March 21, 5:00-7:00 pm, (PTO Family Game Night) Maloney café: Thus., April 4, 5:00 – 7:00 pm (Math Night) Maloney café: Thurs., May 23, 5:00 – 7:30 pm (Book Bingo)
C. Hagan	West Side aud.: Thurs., May 9th 4:00 – 8:00 pm (Spring Concert)
J. Linares	Career Academy café: Tues., March 19th 5:00 – 7:30 pm (College Planning Night)
L. Martin	Rotella aud.: Tues., March 19, 5:00 – 9:00 pm (Art Show) Rotella community rm.: April 11 thru 26 (Book Fair) Rotella aud.: Wed., March 27, 5:00 – 8:00 pm (Literacy Night) Rotella gym: Monday, April 8, 4:00 – 9:00 pm (Science night)
S. LaBonte	Wilby aud.: April 29 thru May 2, 4:00 – 8:00pm (rehearsals) and Friday, May 3, 4:00 – 9:00 pm (performance of school musical)
*S. Smyth	Crosby aud: Fri., May 10, 5:00-8:00pm and Sat., May 11, 2:00-10:00pm (Crosby H. S. play performances)
*K. Egan	Walsh gym: Wed., March 27, 5:00-7:00 pm (Science Night)
*I. Alves	WAMS café: Tues., March 26, 5:00 – 7:00 pm (Parent Liaison event/Book Club)
*Farrell	WAMS Recital Hall: Tues., May 28, 5:30 – 7:30 pm (NHS and NJHS induction ceremonies

Book

SCHOOL PERSONNEL USE ONLY

DATE: February 14, 2024

TO: SCHOOL BUSINESS OFFICE

FROM: College and Career Readiness Department

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Crosby High School

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☒ Café/Rooms

DATES REQUESTED: February 27, 2024

FROM: 6:00PM am/(pm) TO: 7:30PM am/(pm)

FOR THE FOLLOWING PURPOSES:

College and Career Readiness Department hosting an event to provide parents with information regarding opportunities for their student(s).

Dr. Vira Boatright

APPLICANT

Please note the following provisions:

When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Book

SCHOOL PERSONNEL USE ONLY

DATE: February 12, 2024

TO: SCHOOL BUSINESS OFFICE

FROM: College and Career Readiness Department

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Kennedy High School

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☒ Café/Rooms

DATES REQUESTED: March 7, 2024

FROM: 6:00 am/(pm) TO: 7:30 am/(pm)

FOR THE FOLLOWING PURPOSES:

Provide parents with information regarding college and career readiness for their student(s).

Also, collaborating with Kennedy's parent liaison informing parents of available resources.

Dr. Vira Boatright
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

SCHOOL PERSONNEL USE ONLY

DATE: February 23, 2024

TO: SCHOOL BUSINESS OFFICE

FROM: College and Career Readiness Department

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Waterbury Career Academy

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☒ Café/Rooms

DATES REQUESTED: March 13, 2024

FROM: 6:00 am (pm) TO: 7:30 am (pm)

FOR THE FOLLOWING PURPOSES:

The College and Career Readiness Department is providing information to parents regarding resources and opportunities for college and career readiness for their child.

Dr. Vira Boatright
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

SCHOOL PERSONNEL USE ONLY

DATE: February 14, 2024

TO: SCHOOL BUSINESS OFFICE

FROM: College and Career Readiness Department

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Waterbury Arts Magnet School

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☐ Café/Rooms ATRIUM

DATES REQUESTED: March 19, 2024

FROM: 6:00 am (pm) TO: 7:30 am (pm)

FOR THE FOLLOWING PURPOSES:

College and Career Readiness Department is providing information to parents regarding college and career opportunities for their student(s).

Dr. Vira Boatright
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

SCHOOL PERSONNEL USE ONLY

DATE: February 23, 2024

TO: SCHOOL BUSINESS OFFICE

FROM: College and Career Readiness Department

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Wilby High School

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☒ Café/Rooms

DATES REQUESTED: March 28, 2024

FROM: 6:00 am/(pm) TO: 7:00 am/(pm)

FOR THE FOLLOWING PURPOSES:

The College and Career Readiness Department is hosting a series of CCR Parent Nights in order to provide parents with resources and information regarding college and career readiness for their child.

Dr. Vira Boatright
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Yuk

SCHOOL PERSONNEL USE ONLY

DATE: 2-21-24

TO: SCHOOL BUSINESS OFFICE

FROM: Mayor's Office

THE UNDERSIGNED HEREBY MAKES APPLICATION FOR USE OF SCHOOL FACILITIES (AFTER REGULAR SCHOOL HOURS) AS FOLLOWS:

NAME OF SCHOOL REQUESTED: International Sch.

☐ AUDITORIUM ☐ GYMNASIUM ☐ SWIMMING POOL ☑ CAFE/ROOMS

DATES REQUESTED: Tuesday March 19, 2024

FROM 5:15 am/pm TO 8:00 am/pm

FOR THE FOLLOWING PURPOSES:

Public Meeting with EPA

APPLICANT

Sm

Please note the following provisions:

When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at police and fire headquarters.

SCHOOL PERSONNEL USE ONLY

DATE: 2/12/24

TO: SCHOOL BUSINESS OFFICE

FROM: Cheryl Katz - CCRC

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: WAMS

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☐ Café/Rooms Atrium

DATES REQUESTED: Tues. March 19

FROM: 5 am/pm TO: 9 am/pm

FOR THE FOLLOWING PURPOSES:

Parent Meet + greet.

Chairs for 30, 2 8ft. tables, whiteboard w/ hook-up to laptop, Microphone + speaker

Cheryl Katz
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Mook

SCHOOL PERSONNEL USE ONLY

DATE: 4/14/24

TO: SCHOOL BUSINESS OFFICE

FROM: Mary Monroe

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Rotella Community Rm.

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☐ Café/Rooms

DATES REQUESTED: 4/22/24 & 4/23/24

FROM: 905 am/pm TO: 305 am/pm

FOR THE FOLLOWING PURPOSES:

Resident Artist working with Gr. 4

Mary Monroe
APPLICANT
Arts Integration Specialist

Please note the following provisions:

When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Book

SCHOOL PERSONNEL USE ONLY

DATE: 2-22-24

TO: SCHOOL BUSINESS OFFICE

FROM: Sydney Molina / Janet Frenis

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: West Side M.S.

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☒ Café/Rooms LMC

DATES REQUESTED: 3/12/24, 4/9/24, 5/14/24

FROM: 3:00 am/(pm) TO: 4:30 am/(pm)

FOR THE FOLLOWING PURPOSES:

High Quality Instruction meetings with district staff

Janet Frenis
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Book

SCHOOL PERSONNEL USE ONLY

DATE: 2/28/2024

TO: SCHOOL BUSINESS OFFICE

FROM: Mr. Jordan Tulley
Band Director
Wallace Middle School

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Crosby High School

X Auditorium ☐ Gymnasium ☐ Swimming Pool ☐ Café/Rooms

DATES REQUESTED: Thursday, May 30th, 2024

FROM: 5:00 pm TO: 7:30 pm

FOR THE FOLLOWING PURPOSES:

Wallace Middle School spring music concert

Jordan Tulley
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

SCHOOL PERSONNEL USE ONLY

DATE: Feb 29, 2024

TO: SCHOOL BUSINESS OFFICE

FROM: Dr. Lara White

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: WAMS
Library / Career Center!

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☐ Café/Rooms

DATES REQUESTED: Tuesday, March 5th

FROM: 3:00 am/pm TO: 5:30 am/pm

FOR THE FOLLOWING PURPOSES:

School Equity Leader Team training.

APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

SCHOOL PERSONNEL USE ONLY

DATE: _March 1, 2024_____

TO: SCHOOL BUSINESS OFFICE

FROM: _Holly Maxson-Supervisor of Fine Arts_____

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Waterbury Arts Magnet
Large Dance Studio, Small Dance Studio, Chorus RM, Band RM, Piano Lab, Drama Classroom, Costume Shop, Digital Music, Music RM A, Music RM B, Recital Hall, Apron Stage.

DATES REQUESTED: August 22nd, October 2nd, and Dec. 4th of 2024

FROM: __8:00AM_____ am/pm TO: 3:00PM_____ am/pm

FOR THE FOLLOWING PURPOSES:

Fine Arts Professional Developments
Holly Maxson
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

SCHOOL PERSONNEL USE ONLY

DATE: 2/29/2024

TO: SCHOOL BUSINESS OFFICE

FROM: Dave Basile - Wilby High School

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Wilby High School

☐ Auditorium ☑ Gymnasium ☐ Swimming Pool ☐ Café/Rooms

DATES REQUESTED: 10/3/2024

FROM: 8:30 (am)/pm TO: 11:00 (am)/pm

FOR THE FOLLOWING PURPOSES:

~~See attached~~ College Fair

Dave Basile
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

SCHOOL PERSONNEL USE ONLY

DATE: 3/4/2024

TO: SCHOOL BUSINESS OFFICE

FROM: Vjollca Demirali-Parent Liaison

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Sprague Elementary

☐ Auditorium ☒ Gymnasium ☐ Swimming Pool ☒ Café/Rooms

DATES REQUESTED: 3/19/2024

FROM: 4:30pm TO: 6:30pm

FOR THE FOLLOWING PURPOSES:

Family Literacy Night

Vjollca Demirali

APPLICANT

Please note the following provisions:

When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

C:\Users\bfoley\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\15871K53\SCHOOL reservation form.doc

SCHOOL PERSONNEL USE ONLY

DATE: 3/4/2024

TO: SCHOOL BUSINESS OFFICE

FROM: Vjollca Demirali-Parent Liaison

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Sprague Elementary

☐ Auditorium ☐x Gymnasium ☐ Swimming Pool ☐x Café/Rooms

DATES REQUESTED: 4/8/2024

FROM: 5:00pm TO: 7:00pm

FOR THE FOLLOWING PURPOSES:

Science Family Night (STEM)

Vjollca Demirali

APPLICANT

Please note the following provisions:

When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

C:\Users\bfoley\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\15871K53\SCHOOL reservation form.doc

SCHOOL PERSONNEL USE ONLY

DATE: 3/7/24

TO: SCHOOL BUSINESS OFFICE

FROM: Waterbury PAL

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Career Academy

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☒ Café/Rooms Classroom

DATES REQUESTED: Starting April 23rd every Tuesday, Wednesday, Thursday

FROM: 2:00 am/pm TO: 5:00 am/pm

FOR THE FOLLOWING PURPOSES:

Beyond the Bleachers leadership academy, we will be using 2 teachers from Career Academy (Paid through PAL) to identify 6-10 students to go through this program. Spoke to Darren Schwartz.

Please contact me for more info 203-228-7361

APPLICANT

Sgt. Chris Amatruda

Please note the following provisions:

When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

SCHOOL PERSONNEL USE ONLY

DATE:03/07/24

TO: SCHOOL BUSINESS OFFICE

FROM: Waterbury Housing Authority c/o Christian D'Orso, Executive Director

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Duggan School

~~X Gymnasium~~ ~~or~~ X Café/Rooms

DATES REQUESTED: Wednesday March 20, 2024 from 5:30pm to 6:30pm

FOR THE FOLLOWING PURPOSES:

Need small meeting room to meet with tenants from nearby Lawrence St. Co-op

Christian D'Orso - WHA
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

SCHOOL PERSONNEL USE ONLY

DATE: 3-7-24

TO: SCHOOL BUSINESS OFFICE

FROM: S. B. O.

THE UNDERSIGNED HEREBY MAKES APPLICATION FOR USE OF SCHOOL FACILITIES (AFTER REGULAR SCHOOL HOURS) AS FOLLOWS:

NAME OF SCHOOL REQUESTED: See Attached

☐ AUDITORIUM ☐ GYMNASIUM ☐ SWIMMING POOL ☐ CAFE/ROOMS

DATES REQUESTED: Tues, April 2nd 2024

FROM 5:00 am/pm TO 9:00 am/pm

FOR THE FOLLOWING PURPOSES:

Primary - Presidential Election

SM

APPLICANT

Please note the following provisions:

When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at police and fire headquarters.



DEPARTMENT OF REGISTRARS OF VOTERS
THE CITY OF WATERBURY
CONNECTICUT

January 5, 2024

Board of Education Members
236 Grand Street
Waterbury, CT 06702

Dear Board of Education Members:

I am writing to request the use of the following schools for the April Presidential Preference Primary Election which will take place on April 2nd. We will need to be in the facility starting at 5:00 am on the day of the election. Please note that school will be in session on the day of the election. Please bring any concerns to my attention as soon as possible so they may be addressed in adequate time.

Kennedy High School
Gilmartin Elementary
Kingsbury Elementary
Sprague Elementary
Wendell Cross Elementary
Regan Elementary
Carrington School
Maloney School
Waterbury Career Academy
International Dual Language School
Crosby High School
Tinker Elementary
Reed School
Chase Elementary

Our office would also kindly ask that the name and cell phone number of the Maintainer, who is responsible for opening the building, be given to our office prior to the election.

Please feel free to contact us should you have any questions.

Sincerely

Timothy De Carlo
Registrar of Voters

Book

SCHOOL PERSONNEL USE ONLY

DATE: March 7, 2024

TO: SCHOOL BUSINESS OFFICE

FROM: Maloney

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Maloney

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☒ Café/Rooms

DATES REQUESTED: March 21, 2024

FROM: 5:00 am/pm TO: 7:00 am/pm

FOR THE FOLLOWING PURPOSES:

PTO Family Game Night

Rene Babcock
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Yoda

SCHOOL PERSONNEL USE ONLY

DATE: 3-7-2024

TO: SCHOOL BUSINESS OFFICE

FROM: Maloney School

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Maloney

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☒ Café/Rooms

DATES REQUESTED: April 4, 2024

FROM: 5:00 am/pm TO: 7:00 am/pm

FOR THE FOLLOWING PURPOSES:

Math Night

Nina Babcock
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

1:30-2

SCHOOL PERSONNEL USE ONLY

DATE: 3-7-2024

TO: SCHOOL BUSINESS OFFICE

FROM: Maloney School

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Maloney

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☒ Café/Rooms

DATES REQUESTED: May 23, 2024

FROM: 5:00 am/pm TO: 7:30 am/pm

FOR THE FOLLOWING PURPOSES:

Book Bingo

Anne Babcock
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Mod U

SCHOOL PERSONNEL USE ONLY

Date: 3-5-2024

TO: Sandy McCasland

FROM: Christine Hagan

The undersigned hereby makes application for use of school facilities (after school hours) as follows:

NAME OF SCHOOL REQUESTED: West Side Middle School

☒ Auditorium ☐ Gymnasium ☐ Swimming Pool ☐ Café

DATES REQUESTED: May 9, 2024

Time: 4-8 pm

FOR THE FOLLOWING PURPOSES:

Spring concert

-Thank you!

Christine Hagan

Applicant

Please note the following provisions:

When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at police and fire headquarters.

Book

SCHOOL PERSONNEL USE ONLY

DATE: March 4, 2024

TO: SCHOOL BUSINESS OFFICE

FROM: _____

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: WCA

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☑ Café/Rooms

DATES REQUESTED: Tuesday, March 19, 2024

FROM: 5:00 am/(pm) TO: 7:30 am/(pm)

FOR THE FOLLOWING PURPOSES:

College Planning Night for Junior students and Parents

Jennifer Linares
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Yook

SCHOOL PERSONNEL USE ONLY

DATE: 3/4/2024

TO: SCHOOL BUSINESS OFFICE

FROM: Lauren Martin

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Rotella

☑ Auditorium ☐ Gymnasium ☐ Swimming Pool ☐ Café/Rooms

DATES REQUESTED: March 19, 2024

FROM: 5 am/pm TO: 9 am/pm

FOR THE FOLLOWING PURPOSES:

Speaking + Art Show

APPLICANT

Please note the following provisions:

When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Yook

SCHOOL PERSONNEL USE ONLY

DATE: 3/6/2024

TO: SCHOOL BUSINESS OFFICE

FROM: Lauren Martin

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Rotella

Community Room

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☐ Café/Rooms

DATES REQUESTED: April 11th - April 26th

FROM: all day am/pm TO: all day am/pm

FOR THE FOLLOWING PURPOSES:

Book Fair - will be set up the afternoon of 4/11 before April break as it begins the Monday we return

Lem Mart
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Book

SCHOOL PERSONNEL USE ONLY

DATE: 3/6/2024

TO: SCHOOL BUSINESS OFFICE

FROM: Lauren Martin

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Rotella

☑ Auditorium ☐ Gymnasium ☐ Swimming Pool ☐ Café/Rooms

DATES REQUESTED: March 27, 2024

FROM: 5:00 am/pm TO: 8:00 am/pm

FOR THE FOLLOWING PURPOSES:

Literacy Night - Arts For Learning

Lauren Martin
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

SCHOOL PERSONNEL USE ONLY

DATE: 3/6/2024

TO: SCHOOL BUSINESS OFFICE

FROM: Lauren Martin

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Rotella

☐ Auditorium ☑ Gymnasium ☐ Swimming Pool ☐ Café/Rooms

DATES REQUESTED: April 8, 2024

FROM: 4:00 am/pm TO: 9:00 am/pm

FOR THE FOLLOWING PURPOSES:

Science Night - Mobile Ed Productions

Lauren Martin
APPLICANT

Please note the following provisions:

When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

book

SCHOOL PERSONNEL USE ONLY

DATE: 3/7/2024

TO: SCHOOL BUSINESS OFFICE

FROM: Wilby H.S.

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Wilby H.S.

☒ Auditorium ☐ Gymnasium ☐ Swimming Pool ☐ Café/Rooms

DATES REQUESTED: April 29- May 2nd

FROM: 4pm am/pm TO: 8 pm am/pm

FOR THE FOLLOWING PURPOSES:

School Musical rehearsals

J. LaBate
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Work

SCHOOL PERSONNEL USE ONLY

DATE: 3/7/2014

TO: SCHOOL BUSINESS OFFICE

FROM: Wilby H.S.

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Wilby H.S

☒ Auditorium ☐ Gymnasium ☐ Swimming Pool ☐ Café/Rooms

DATES REQUESTED: May 3rd

FROM: 4pm (am/pm) TO: 9 pm (am/pm)

FOR THE FOLLOWING PURPOSES:

School musical

S. LaBonte
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

C:\Users\smccasland1\Documents\SCHOOL reservation form.doc

SCHOOL PERSONNEL USE ONLY

DATE:
__3/11/24_____

TO: SCHOOL BUSINESS OFFICE

FROM: Susan Smyth_____

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: _Crosby Auditorium_____

X☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☐ Café/Rooms

DATES REQUESTED: _____May 10, 2024 5PM to 8PM_____, May 11,,2024 from 2PM to 10PM_____

FOR THE FOLLOWING PURPOSES:

__ "Cinderella Youth Edition"performances (Crosby HS) for the public and families_____
_____

Susan Smyth, for Crosby HS_____
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Yook

SCHOOL PERSONNEL USE ONLY

DATE: 3/11/24

TO: SCHOOL BUSINESS OFFICE

FROM: Karen Egan / Nicole Cueras

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: Walsh School

☐ Auditorium ☒ Gymnasium ☐ Swimming Pool ☐ Café/Rooms

DATES REQUESTED: March 27, 2024

FROM: 5:00 am (pm) TO: 7:00 am (pm)

FOR THE FOLLOWING PURPOSES:

Science Night

Kan E
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Rebecca
Dustin
Jan

SCHOOL PERSONNEL USE ONLY

DATE: 3/12/24

TO: SCHOOL BUSINESS OFFICE

FROM: Isa Alves - PL - WAMS

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: WAMS

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☒ Café/Rooms

DATES REQUESTED: March 26, 2024

FROM: 5:00 am/pm TO: 7:00 am/pm

FOR THE FOLLOWING PURPOSES:

Parent Liaison event: Book Club

Isa Alves
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

Yadok

SCHOOL PERSONNEL USE ONLY

DATE: 3/15/24

TO: SCHOOL BUSINESS OFFICE

FROM: WAMS - Farrell

The undersigned hereby makes application for use of school facilities (after regular school hours) as follows:

NAME OF SCHOOL REQUESTED: WAMS

☐ Auditorium ☐ Gymnasium ☐ Swimming Pool ☒ Café/Rooms Recital Hall

DATES REQUESTED: 5/28/24

FROM: 530 am/pm TO: 730 am/pm

FOR THE FOLLOWING PURPOSES:

WHS + NJHS induction ceremonies

Farrell
APPLICANT

Please note the following provisions:
When the public is invited to an activity, police and fire departments must be notified. These arrangements *must* be made in person at the police and fire headquarters.

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE ON BUILDING & SCHOOL FACILITIES

Item #9.3

March 21, 2024

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee on Building & School Facilities moves that the Waterbury Board of Education approve the use of school facilities and/or waiver requests by groups and organizations subject to fees and insurance as required:

GROUP	FACILITIES AND DATES/TIMES	
* Elisha Freedman	Rotella aud.: Sunday, Mr. 17th 1:00 – 6:00pm, (Boys Choir performance)	
REQUESTING WAIVERS:		
Chabad Lubavitc Rabbi Joseph Eisenbach	Kingsbury café: Sunday, April 14,12:00pm – 6:00pm (Matzah Bake craft activity)	($294)
Waterbury Ballers T. Lott	Career Academy: Saturday, March 9, 2:00pm – 5:00pm (basketball tryouts)	($168)
City Youth Theater S. Davis	Crosby aud.: Sat., May 4th 5:00 – 10:00 pm (concert) Crosby aud.: July 22nd thru Aug. 11th rehearsals and production performances	($504) ($3,381)

GROUPS NOT SUBJECT TO FEES OR WAIVER DUE TO TIME OF USE OR PREVIOUS WAIVER:		
Boy Scouts, Troop 3 Waterbury	Crosby pool: Mondays, March 4 and 11, 6:45pm – 9:15pm (training)	
Waterbury Ballers T. Lott	Generali gym.: April 1 thru June 28, 2024, Monday thru Friday, 5:30 – 8:30pm (basketball)	
*Wtby. Special Olympics N. Czaporowski	Crosby track/field: Thursdays, 5:30 – 7:00 pm April 4 thru May 30 (practice)	
*Wtby. Special Olympics H. Minervini	Wilby pool: Tuesdays, 5:00 – 8:00 pm March 26 thru May 28 (swim practice)	

Book

DEPARTMENT OF EDUCATION - WATERBURY, CONNECTICUT
SCHOOL BUSINESS OFFICE
236 GRAND ST., WATERBURY, CT 06702 CONTRACT#
USE OF BUILDING PERMIT
TYPE OR USE PEN AND PRESS FIRMLY

APPLICANT Elisha Freedman- (Waterbury Boys Choirhead) NAME OF ORGANIZATION Ace Management CT LLC

ADDRESS 60 Stephana Ln, Waterbury, CT 06710 TELEPHONE # 917-533-0758
(street) (city) (state) (zip code)

SCHOOL REQUESTED Rotella DATES March 17th, 2024 ROOM(S) Auditorium

OPENING TIME 1 pm CLOSING TIME 6 pm PURPOSE Boys Choir Peformance (Actual performance 3:00-4:30)

ADMISSION (if any) $12 CHARGE TO BE DEVOTED TO Waterbury Boys Choir

APPROXIMATE NUMBER OF PEOPLE TO BE PRESENT: ADULTS 150 CHILDREN 300

SIGNATURE OFAPPLICANT E Fred DATE 3/5/24

PERSON(S) NAME, ADDRESS & PHONE NUMBER RESPONSIBLE FOR SUPERVISION:
Elisha Freedman- address and phone above

In the event that the Board of Education should need to resort to legal proceedings to collect any outstanding balances, the lessee is responsible for any and all attorney's fees, sheriff's fees and court costs associated with said proceedings. EF (PLEASE INITIAL)

SCHEDULE OF RATES: CUSTODIAL FEES: $42/HR plus 1 HR SERVICE PER EVENT
RENTAL FEES: $1,000./4 HRS
MISCELLANEOUS FEES: $55/HR Tech.

SECURITY DEPOSIT $ 500.- INSURANCE COVERAGE ✓ YES NO

PLEASE READ THE FOLLOWING CAREFULLY

APPLICATION MUST BE RECEIVED AT LEAST THREE (3) WEEKS PRIOR TO THE ACTIVITY.

A COPY OF YOUR INSURANCE MUST ACCOMPANY YOUR APPLICATION (IF APPLICABLE)

IF SCHOOL IS CANCELLED FOR SNOW OR ANY OTHER REASON - ALL ACTIVITIES ARE CANCELLED ALSO.

THERE WILL BE NO ACTIVITIES DURING SCHOOL OPEN HOUSE.

CANCELLATIONS MUST BE MADE AT LEAST 48 HOURS IN ADVANCE OR YOU WILL BE CHARGED.

POLICE AND FIRE PROTECTION MUST BE ARRANGED AND/OR CANCELLED BY THE RENTER. PLEASE CALL EACH DEPARTMENT FOR INFORMATION. POLICE DEPT. 574-6963 FIRE DEPT. 597-3452

CALL THE SCHOOL CUSTODIAN AT LEAST ONE WEEK PRIOR TO YOUR ACTIVITY FOR ANY ARRANGEMENTS RE: PA SYSTEM, LIGHTING, ETC. (FOR WHICH THERE WILL BE AN EXTRA CHARGE).

KITCHEN FACILITIES CAN NOT BE USED BY GROUPS WITHOUT SUPERVISION - PLEASE CALL THE FOOD SERVICE DEPT. AT 574-8210 TO ARRANGE FOR A FOOD SERVICE PERSON (FOR WHICH THERE WILL BE AN EXTRA CHARGE)

PLEASE SEE REVERSE FOR ADDITIONAL RULES AND REGULATIONS.

IT IS AGREED THAT REGULATIONS ADOPTED BY THE BOARD OF EDUCATION FOR USE OF SCHOOL BUILDINGS WILL BE RIGIDLY ENFORCED.

APPROVAL DATE _____ _____
SCHOOL BUSINESS OFFICE

CHECKS OR MONEY ORDERS FOR FEES SHOULD BE MADE OUT TO THE BOARD OF EDUCATION AND MAILED TO THE SCHOOL BUSINESS OFFICE. NO CASH WILL BE ACCEPTED.

White-Permittee Goldenrod-School Business Office Pink-Principal Blue-Custodian

Book

DEPARTMENT OF EDUCATION - WATERBURY, CONNECTICUT
SCHOOL BUSINESS OFFICE
236 GRAND ST., WATERBURY, CT 06702 CONTRACT#
USE OF BUILDING PERMIT
TYPE OR USE PEN AND PRESS FIRMLY

APPLICANT Joseph Eisenbach NAME OF ORGANIZATION Chabad Lubavitch NW CT

ADDRESS 99 Crescent st Waterbury CT 06013 TELEPHONE # 860-567-3377
(street) (city) (state) (zip code)

SCHOOL REQUESTED Kingsbury DATES April 14th 2024 ROOM(S) 4/14/24 Cafeteria

OPENING TIME 12pm CLOSING TIME 6pm PURPOSE Matzah Bake Craft activity

ADMISSION (if any) none CHARGE TO BE DEVOTED TO _____

APPROXIMATE NUMBER OF PEOPLE TO BE PRESENT: ADULTS 30 CHILDREN 70

SIGNATURE OFAPPLICANT _____ DATE 2/26/24

PERSON(S) NAME, ADDRESS & PHONE NUMBER RESPONSIBLE FOR SUPERVISION:

Rabbi Joseph Eisenbach 860/459/9319

In the event that the Board of Education should need to resort to legal proceedings to collect any outstanding balances, the lessee is responsible for any and all attorney's fees, sheriff's fees and court costs associated with said proceedings. _____ (PLEASE INITIAL)

SCHEDULE OF RATES: CUSTODIAL FEES: $42/HR plus 1 HR service ($294.)

RENTAL FEES: _____

MISCELLANEOUS FEES: _____

SECURITY DEPOSIT $ _____ INSURANCE COVERAGE ✓ YES _____ NO

PLEASE READ THE FOLLOWING CAREFULLY

OK

APPLICATION MUST BE RECEIVED AT LEAST THREE (3) WEEKS PRIOR TO THE ACTIVITY.

A COPY OF YOUR INSURANCE MUST ACCOMPANY YOUR APPLICATION (IF APPLICABLE)

IF SCHOOL IS CANCELLED FOR SNOW OR ANY OTHER REASON - ALL ACTIVITIES ARE CANCELLED ALSO.

THERE WILL BE NO ACTIVITIES DURING SCHOOL OPEN HOUSE.

CANCELLATIONS MUST BE MADE AT LEAST 48 HOURS IN ADVANCE OR YOU WILL BE CHARGED.

POLICE AND FIRE PROTECTION MUST BE ARRANGED AND/OR CANCELLED BY THE RENTER. PLEASE CALL EACH DEPARTMENT FOR INFORMATION. POLICE DEPT. 574-6963 FIRE DEPT. 597-3452

CALL THE SCHOOL CUSTODIAN AT LEAST ONE WEEK PRIOR TO YOUR ACTIVITY FOR ANY ARRANGEMENTS RE: PA SYSTEM, LIGHTING, ETC. (FOR WHICH THERE WILL BE AN EXTRA CHARGE).

KITCHEN FACILITIES CAN NOT BE USED BY GROUPS WITHOUT SUPERVISION - PLEASE CALL THE FOOD SERVICE DEPT. AT 574-8210 TO ARRANGE FOR A FOOD SERVICE PERSON (FOR WHICH THERE WILL BE AN EXTRA CHARGE)

PLEASE SEE REVERSE FOR ADDITIONAL RULES AND REGULATIONS.

IT IS AGREED THAT REGULATIONS ADOPTED BY THE BOARD OF EDUCATION FOR USE OF SCHOOL BUILDINGS WILL BE RIGIDLY ENFORCED.

APPROVAL DATE _____ _____
SCHOOL BUSINESS OFFICE

CHECKS OR MONEY ORDERS FOR FEES SHOULD BE MADE OUT TO THE BOARD OF EDUCATION AND MAILED TO THE SCHOOL BUSINESS OFFICE. NO CASH WILL BE ACCEPTED.

White-Permittee Goldenrod-School Business Office Pink-Principal Blue-Custodian

USE OF SCHOOL FACILITIES
WAIVER REQUEST
(to be submitted with Date of Building Permit)

APPLICANT/ORGANIZATION: Chabad Lubavitch of NW CT

Please check below specific item(s):

Building Usage Fees ☒ Custodial Fees ☒

SCHOOL/ROOMS REQUESTED: Cafeteria - Kingsbury

DATE(S): April 14th 2024 TIMES: 12:00pm - 6:00pm

DATE(S): _____ TIMES: _____

DATE(S): _____ TIMES: _____

DATE(S): _____ TIMES: _____

DATE(S): _____ TIMES: _____

DATE(S): _____ TIMES: _____

2/26/2024
Date

Ryan Murphy
Signature

OFFICE USE ONLY

List total cost of fees being requested to be waived:

$ _____ Building Usage Fees

$ 294.00 Custodial Fees

$ _____ Security Deposit

BOARD USE ONLY

The Board of Education approved/denied the above referenced waiver request(s) at their regular meeting of _____

ATTEST: _____
Clerk, Board of Education

DEPARTMENT OF EDUCATION - WATERBURY, CONNECTICUT
SCHOOL BUSINESS OFFICE
236 GRAND ST., WATERBURY, CT 06702 CONTRACT#
USE OF BUILDING PERMIT
TYPE OR USE PEN AND PRESS FIRMLY

APPLICANT Terence Loft NAME OF ORGANIZATION Waterbury Ballers

ADDRESS 25 Grand Ave (street) Waterbury (city) CT (state) 06704 (zip code) TELEPHONE # 203-509-4757 203-805-1884

SCHOOL REQUESTED Career Academy DATES March 9th ROOM(S) Gym

OPENING TIME 2pm CLOSING TIME 5pm PURPOSE Basketball Tryouts

ADMISSION (if any) _____ CHARGE TO BE DEVOTED TO _____

APPROXIMATE NUMBER OF PEOPLE TO BE PRESENT: ADULTS 6 CHILDREN 25

SIGNATURE OF APPLICANT _____ DATE 3-4-24

PERSON(S) NAME, ADDRESS & PHONE NUMBER RESPONSIBLE FOR SUPERVISION:

Terence Loft Sr (203-509-4757), Terence Loft Jr (203-805-1884)

In the event that the Board of Education should need to resort to legal proceedings to collect any outstanding balances, the lessee is responsible for any and all attorney's fees, sheriff's fees and court costs associated with said proceedings. TL (PLEASE INITIAL)

SCHEDULE OF RATES: CUSTODIAL FEES: $42/HR. plus 1 HR service ($168.)

RENTAL FEES: _____

MISCELLANEOUS FEES: _____

SECURITY DEPOSIT $ _____ INSURANCE COVERAGE ✓ YES _____ NO

PLEASE READ THE FOLLOWING CAREFULLY

APPLICATION MUST BE RECEIVED AT LEAST THREE (3) WEEKS PRIOR TO THE ACTIVITY.

A COPY OF YOUR INSURANCE MUST ACCOMPANY YOUR APPLICATION (IF APPLICABLE)

IF SCHOOL IS CANCELLED FOR SNOW OR ANY OTHER REASON - ALL ACTIVITIES ARE CANCELLED ALSO.

THERE WILL BE NO ACTIVITIES DURING SCHOOL OPEN HOUSE.

CANCELLATIONS MUST BE MADE AT LEAST 48 HOURS IN ADVANCE OR YOU WILL BE CHARGED.

POLICE AND FIRE PROTECTION MUST BE ARRANGED AND/OR CANCELLED BY THE RENTER. PLEASE CALL EACH DEPARTMENT FOR INFORMATION. POLICE DEPT. 574-6963 FIRE DEPT. 597-3452

CALL THE SCHOOL CUSTODIAN AT LEAST ONE WEEK PRIOR TO YOUR ACTIVITY FOR ANY ARRANGEMENTS RE: PA SYSTEM, LIGHTING, ETC. (FOR WHICH THERE WILL BE AN EXTRA CHARGE).

KITCHEN FACILITIES CAN NOT BE USED BY GROUPS WITHOUT SUPERVISION - PLEASE CALL THE FOOD SERVICE DEPT. AT 574-8210 TO ARRANGE FOR A FOOD SERVICE PERSON (FOR WHICH THERE WILL BE AN EXTRA CHARGE)

PLEASE SEE REVERSE FOR ADDITIONAL RULES AND REGULATIONS.

IT IS AGREED THAT REGULATIONS ADOPTED BY THE BOARD OF EDUCATION FOR USE OF SCHOOL BUILDINGS WILL BE RIGIDLY ENFORCED.

APPROVAL DATE _____ _____
SCHOOL BUSINESS OFFICE

CHECKS OR MONEY ORDERS FOR FEES SHOULD BE MADE OUT TO THE BOARD OF EDUCATION AND MAILED TO THE SCHOOL BUSINESS OFFICE. NO CASH WILL BE ACCEPTED.

White-Permittee Goldenrod-School Business Office Pink-Principal Blue-Custodian

USE OF SCHOOL FACILITIES WAIVER REQUEST

(to be submitted with Application for Building Permit)

APPLICANT/ORGANIZATION: Wtby. Ballers

Please check below specific item(s):

Building Usage Fees ☐ Custodial Fees ☐

SCHOOL/ROOMS REQUESTED: Career Academy

DATE(S): Sat. Mar. 9 TIMES: 2-5 pm

DATE(S): _____ TIMES: _____

DATE(S): _____ TIMES: _____

DATE(S): _____ TIMES: _____

DATE(S): _____ TIMES: _____

DATE(S): _____ TIMES: _____

3-4-24
Date

Signature

OFFICE USE ONLY

List total cost of fees being requested to be waived:

$ _____ Building Usage Fees

$ 168.00 Custodial Fees

$ _____ Security Deposit

BOARD USE ONLY

The Board of Education approved/denied the above referenced waiver request(s) at their regular meeting of _____.

ATTEST: _____
Clerk, Board of Education

DEPARTMENT OF EDUCATION - WATERBURY, CONNECTICUT
SCHOOL BUSINESS OFFICE
236 GRAND ST., WATERBURY, CT 06702 CONTRACT#
USE OF BUILDING PERMIT
TYPE OR USE PEN AND PRESS FIRMLY

APPLICANT City Youth Theater NAME OF ORGANIZATION CYT

ADDRESS 42 Mountain Ln Waterbury CT 06704 TELEPHONE # 2034370325
(street) (city) (state) (zip code)

SCHOOL REQUESTED Crosby DATES May 4th ROOM(S) Auditorium / Lobby

OPENING TIME 5p CLOSING TIME 10p PURPOSE Theater Arts Education

ADMISSION (if any) 10.00 CHARGE TO BE DEVOTED TO Fundraising

APPROXIMATE NUMBER OF PEOPLE TO BE PRESENT: ADULTS 10 CHILDREN 50

SIGNATURE OFAPPLICANT SD DATE 2/28/24

PERSON(S) NAME, ADDRESS & PHONE NUMBER RESPONSIBLE FOR SUPERVISION:
Shelby Davis 2034370325

In the event that the Board of Education should need to resort to legal proceedings to collect any outstanding balances, the lessee is responsible for any and all attorney's fees, sheriff's fees and court costs associated with said proceedings. SD (PLEASE INITIAL)

SCHEDULE OF RATES: CUSTODIAL FEES: $42/HR plus 1 HR SERVICE (2) ($504.)

RENTAL FEES:

MISCELLANEOUS FEES:

SECURITY DEPOSIT $ 250.- INSURANCE COVERAGE YES NO

PLEASE READ THE FOLLOWING CAREFULLY

Saturday

APPLICATION MUST BE RECEIVED AT LEAST THREE (3) WEEKS PRIOR TO THE ACTIVITY.

A COPY OF YOUR INSURANCE MUST ACCOMPANY YOUR APPLICATION (IF APPLICABLE)

IF SCHOOL IS CANCELLED FOR SNOW OR ANY OTHER REASON - ALL ACTIVITIES ARE CANCELLED ALSO.

THERE WILL BE NO ACTIVITIES DURING SCHOOL OPEN HOUSE.

CANCELLATIONS MUST BE MADE AT LEAST 48 HOURS IN ADVANCE OR YOU WILL BE CHARGED.

POLICE AND FIRE PROTECTION MUST BE ARRANGED AND/OR CANCELLED BY THE RENTER. PLEASE CALL EACH DEPARTMENT FOR INFORMATION. POLICE DEPT. 574-6963 FIRE DEPT. 597-3452

CALL THE SCHOOL CUSTODIAN AT LEAST ONE WEEK PRIOR TO YOUR ACTIVITY FOR ANY ARRANGEMENTS RE: PA SYSTEM, LIGHTING, ETC. (FOR WHICH THERE WILL BE AN EXTRA CHARGE).

KITCHEN FACILITIES CAN NOT BE USED BY GROUPS WITHOUT SUPERVISION - PLEASE CALL THE FOOD SERVICE DEPT. AT 574-8210 TO ARRANGE FOR A FOOD SERVICE PERSON (FOR WHICH THERE WILL BE AN EXTRA CHARGE)

PLEASE SEE REVERSE FOR ADDITIONAL RULES AND REGULATIONS.

IT IS AGREED THAT REGULATIONS ADOPTED BY THE BOARD OF EDUCATION FOR USE OF SCHOOL BUILDINGS WILL BE RIGIDLY ENFORCED.

APPROVAL DATE _____ _____
SCHOOL BUSINESS OFFICE

CHECKS OR MONEY ORDERS FOR FEES SHOULD BE MADE OUT TO THE BOARD OF EDUCATION AND MAILED TO THE SCHOOL BUSINESS OFFICE. NO CASH WILL BE ACCEPTED.

White-Permittee Goldenrod-School Business Office Pink-Principal Blue-Custodian

USE OF SCHOOL FACILITIES
WAIVER REQUEST

(to be submitted with Use of Building Permit)

APPLICANT/ORGANIZATION: City Youth Theater

Please check below specific item(s):

Building Usage Fees ☐ Custodial Fees ☐

SCHOOL/ROOMS REQUESTED: Crosby

DATE(S): Sat. May 4th TIMES: 5pm - 10pm

DATE(S): _____ TIMES: _____

DATE(S): _____ TIMES: _____

DATE(S): _____ TIMES: _____

DATE(S): _____ TIMES: _____

DATE(S): _____ TIMES: _____

3-5-24
Date

Signature

OFFICE USE ONLY

List total cost of fees being requested to be waived:

$ _____ Building Usage Fees

$ 504.00 Custodial Fees

$ _____ Security Deposit

BOARD USE ONLY

The Board of Education approved/denied the above referenced waiver request(s) at their regular meeting of _____.

ATTEST: _____
Clerk, Board of Education

Yoola

DEPARTMENT OF EDUCATION - WATERBURY, CONNECTICUT
SCHOOL BUSINESS OFFICE
236 GRAND ST., WATERBURY, CT 06702 CONTRACT#
USE OF BUILDING PERMIT
TYPE OR USE PEN AND PRESS FIRMLY

APPLICANT City Youth theater NAME OF ORGANIZATION CYT

ADDRESS 12 Mountain Laurel Waterbury CT 06704 TELEPHONE # 2034370325
(street) (city) (state) (zip code)

SCHOOL REQUESTED Crosby DATES attached ROOM(S) Auditorium / Lobby

OPENING TIME / CLOSING TIME / PURPOSE Theater Arts Education

ADMISSION (if any) 10.00 CHARGE TO BE DEVOTED TO Fundraising

APPROXIMATE NUMBER OF PEOPLE TO BE PRESENT: ADULTS 10 CHILDREN 50

SIGNATURE OFAPPLICANT [signature] DATE 2/22/24

PERSON(S) NAME, ADDRESS & PHONE NUMBER RESPONSIBLE FOR SUPERVISION:
Shelby Davis 2034370325

In the event that the Board of Education should need to resort to legal proceedings to collect any outstanding balances, the lessee is responsible for any and all attorney's fees, sheriff's fees and court costs associated with said proceedings. SD (PLEASE INITIAL)

SCHEDULE OF RATES: CUSTODIAL FEES: $42/HR plus 1 HR service per cust. (2) ($3,381)

RENTAL FEES:

MISCELLANEOUS FEES:

SECURITY DEPOSIT $ 250.- INSURANCE COVERAGE ✓ YES NO

PLEASE READ THE FOLLOWING CAREFULLY

APPLICATION MUST BE RECEIVED AT LEAST THREE (3) WEEKS PRIOR TO THE ACTIVITY.

COPY OF YOUR INSURANCE MUST ACCOMPANY YOUR APPLICATION (IF APPLICABLE)

IF SCHOOL IS CANCELLED FOR SNOW OR ANY OTHER REASON - ALL ACTIVITIES ARE CANCELLED ALSO.

THERE WILL BE NO ACTIVITIES DURING SCHOOL OPEN HOUSE.

CANCELLATIONS MUST BE MADE AT LEAST 48 HOURS IN ADVANCE OR YOU WILL BE CHARGED.

POLICE AND FIRE PROTECTION MUST BE ARRANGED AND/OR CANCELLED BY THE RENTER. PLEASE CALL EACH DEPARTMENT FOR INFORMATION. POLICE DEPT. 574-6963 FIRE DEPT. 597-3452

CALL THE SCHOOL CUSTODIAN AT LEAST ONE WEEK PRIOR TO YOUR ACTIVITY FOR ANY ARRANGEMENTS RE: PA SYSTEM, LIGHTING, ETC. (FOR WHICH THERE WILL BE AN EXTRA CHARGE).

KITCHEN FACILITIES CAN NOT BE USED BY GROUPS WITHOUT SUPERVISION - PLEASE CALL THE FOOD SERVICE DEPT. AT 574-8210 TO ARRANGE FOR A FOOD SERVICE PERSON (FOR WHICH THERE WILL BE AN EXTRA CHARGE)

PLEASE SEE REVERSE FOR ADDITIONAL RULES AND REGULATIONS.

IT IS AGREED THAT REGULATIONS ADOPTED BY THE BOARD OF EDUCATION FOR USE OF SCHOOL BUILDINGS WILL BE RIGIDLY ENFORCED.

APPROVAL DATE _____ _____
SCHOOL BUSINESS OFFICE

CHECKS OR MONEY ORDERS FOR FEES SHOULD BE MADE OUT TO THE BOARD OF EDUCATION AND MAILED TO THE SCHOOL BUSINESS OFFICE. NO CASH WILL BE ACCEPTED.

White-Permittee Goldenrod-School Business Office Pink-Principal Blue-Custodian

USE OF SCHOOL FACILITIES
WAIVER REQUEST
(to be submitted with Use of Building Permit)

APPLICANT/ORGANIZATION: City Youth Theater

Please check below specific item(s):

Building Usage Fees ☐ Custodial Fees ☐

SCHOOL/ROOMS REQUESTED: Crosby

DATE(S): July 22 To — TIMES: _____
DATE(S): Aug. 11th — TIMES: _____
DATE(S): _____ — TIMES: _____
DATE(S): (see attached) — TIMES: _____
DATE(S): _____ — TIMES: _____
DATE(S): _____ — TIMES: _____

3-5-24
Date

Signature

OFFICE USE ONLY

List total cost of fees being requested to be waived:

$	$ 3,381.00	$
Building Usage Fees	Custodial Fees	Security Deposit

BOARD USE ONLY

The Board of Education approved/denied the above referenced waiver request(s) at their regular meeting of _____.

ATTEST: _____
Clerk, Board of Education

M-F

July 22nd- 5pm - 9pm
July 23rd - 5pm - 9pm
July 24th- 5pm - 9pm
July 25th - 5pm - 9pm
July 26th- 5pm - 9pm

July 28th - 9am - 5pm Sunday ✓

M-W

July 29th - 3 30pm - 9pm
July 30th - 3 30pm - 9pm
July 31st - 3 30pm - 9pm

Th.

August 1st - 4pm - 10pm

F

First weekend of shows ✓
August 2nd - 5pm - 10: 15pm
August 3rd - 5pm - 10 15pm Saturday ✓
August 4th- 12pm - 5 15pm Sunday ✓

Th

August 8th - 3 30pm - 9pm

F

Second Weekend of shows
August 9th - 5pm - 11 15pm ✓
August 10th - 5pm - 10 15pm Saturday ✓

August 11th- 2pm - 7pm Sunday ✓

$500K

DEPARTMENT OF EDUCATION - WATERBURY, CONNECTICUT
SCHOOL BUSINESS OFFICE
236 GRAND ST., WATERBURY, CT 06702 CONTRACT#
USE OF BUILDING PERMIT
TYPE OR USE PEN AND PRESS FIRMLY

APPLICANT David Sidoti NAME OF ORGANIZATION BoyScout Troop 3 Watterbury

ADDRESS 154 North Harwinton Ave Terryville CT 06786 TELEPHONE # 203-232-6141
(street) (city) (state) (zip code)

SCHOOL REQUESTED Crosby DATES 3-4-24 / 3-11-24 ROOM(S) Swimming Pool

OPENING TIME 6:45 CLOSING TIME 9:15 PURPOSE Training

ADMISSION (if any)_____ CHARGE TO BE DEVOTED TO_____

APPROXIMATE NUMBER OF PEOPLE TO BE PRESENT: ADULTS 6 CHILDREN 20

SIGNATURE OFAPPLICANT [signature] DATE 2-18-24

PERSON(S) NAME, ADDRESS & PHONE NUMBER RESPONSIBLE FOR SUPERVISION:
John Leary 244 Hart ST Southington CT 06489 860-681-1576

In the event that the Board of Education should need to resort to legal proceedings to collect any outstanding balances, the lessee is responsible for any and all attorney's fees, sheriff's fees and court costs associated with said proceedings. DS (PLEASE INITIAL)

SCHEDULE OF RATES: CUSTODIAL FEES:_____

RENTAL FEES:_____

MISCELLANEOUS FEES:_____

SECURITY DEPOSIT $_____ INSURANCE COVERAGE DK YES_____ NO

PLEASE READ THE FOLLOWING CAREFULLY

APPLICATION MUST BE RECEIVED AT LEAST THREE (3) WEEKS PRIOR TO THE ACTIVITY.

A COPY OF YOUR INSURANCE MUST ACCOMPANY YOUR APPLICATION (IF APPLICABLE)

IF SCHOOL IS CANCELLED FOR SNOW OR ANY OTHER REASON - ALL ACTIVITIES ARE CANCELLED ALSO.

THERE WILL BE NO ACTIVITIES DURING SCHOOL OPEN HOUSE.

CANCELLATIONS MUST BE MADE AT LEAST 48 HOURS IN ADVANCE OR YOU WILL BE CHARGED.

POLICE AND FIRE PROTECTION MUST BE ARRANGED AND/OR CANCELLED BY THE RENTER. PLEASE CALL EACH DEPARTMENT FOR INFORMATION. POLICE DEPT. 574-6963 FIRE DEPT. 597-3452

CALL THE SCHOOL CUSTODIAN AT LEAST ONE WEEK PRIOR TO YOUR ACTIVITY FOR ANY ARRANGEMENTS RE: PA SYSTEM, LIGHTING, ETC. (FOR WHICH THERE WILL BE AN EXTRA CHARGE).

KITCHEN FACILITIES CAN NOT BE USED BY GROUPS WITHOUT SUPERVISION - PLEASE CALL THE FOOD SERVICE DEPT. AT 574-8210 TO ARRANGE FOR A FOOD SERVICE PERSON (FOR WHICH THERE WILL BE AN EXTRA CHARGE)

PLEASE SEE REVERSE FOR ADDITIONAL RULES AND REGULATIONS.

IT IS AGREED THAT REGULATIONS ADOPTED BY THE BOARD OF EDUCATION FOR USE OF SCHOOL BUILDINGS WILL BE RIGIDLY ENFORCED.

APPROVAL DATE_____ _____
SCHOOL BUSINESS OFFICE

CHECKS OR MONEY ORDERS FOR FEES SHOULD BE MADE OUT TO THE BOARD OF EDUCATION AND MAILED TO THE SCHOOL BUSINESS OFFICE. NO CASH WILL BE ACCEPTED.

White-Permittee Goldenrod-School Business Office Pink-Principal Blue-Custodian

Book

DEPARTMENT OF EDUCATION - WATERBURY, CONNECTICUT
SCHOOL BUSINESS OFFICE
236 GRAND ST., WATERBURY, CT 06702 CONTRACT#
USE OF BUILDING PERMIT
TYPE OR USE PEN AND PRESS FIRMLY

APPLICANT Terence Loft NAME OF ORGANIZATION Waterbury Ballers

ADDRESS 25 Grad Ave (street) Waterbury (city) CT (state) 06704 (zip code) TELEPHONE # 203-509-4757 203-805-1884

SCHOOL REQUESTED Generali DATES 4/1 - 6/29/24 ROOM(S) Gym

OPENING TIME 5:30 CLOSING TIME 8:30 pm PURPOSE Basketball Program

ADMISSION (if any) — CHARGE TO BE DEVOTED TO

APPROXIMATE NUMBER OF PEOPLE TO BE PRESENT: ADULTS 10 CHILDREN 40

SIGNATURE OF APPLICANT DATE 3-29-24

PERSON(S) NAME, ADDRESS & PHONE NUMBER RESPONSIBLE FOR SUPERVISION:

Terence Loft Sr (203-509-4757), Terence Loft Jr (203-805-1884)

In the event that the Board of Education should need to resort to legal proceedings to collect any outstanding balances, the lessee is responsible for any and all attorney's fees, sheriff's fees and court costs associated with said proceedings. TL (PLEASE INITIAL)

SCHEDULE OF RATES: CUSTODIAL FEES:

RENTAL FEES:

MISCELLANEOUS FEES:

SECURITY DEPOSIT $ INSURANCE COVERAGE ✓ YES NO

PLEASE READ THE FOLLOWING CAREFULLY

APPLICATION MUST BE RECEIVED AT LEAST THREE (3) WEEKS PRIOR TO THE ACTIVITY.

A COPY OF YOUR INSURANCE MUST ACCOMPANY YOUR APPLICATION (IF APPLICABLE)

IF SCHOOL IS CANCELLED FOR SNOW OR ANY OTHER REASON - ALL ACTIVITIES ARE CANCELLED ALSO.

THERE WILL BE NO ACTIVITIES DURING SCHOOL OPEN HOUSE.

CANCELLATIONS MUST BE MADE AT LEAST 48 HOURS IN ADVANCE OR YOU WILL BE CHARGED.

POLICE AND FIRE PROTECTION MUST BE ARRANGED AND/OR CANCELLED BY THE RENTER. PLEASE CALL EACH DEPARTMENT FOR INFORMATION. POLICE DEPT. 574-6963 FIRE DEPT. 597-3452

CALL THE SCHOOL CUSTODIAN AT LEAST ONE WEEK PRIOR TO YOUR ACTIVITY FOR ANY ARRANGEMENTS RE: A SYSTEM, LIGHTING, ETC. (FOR WHICH THERE WILL BE AN EXTRA CHARGE).

ITCHEN FACILITIES CAN NOT BE USED BY GROUPS WITHOUT SUPERVISION - PLEASE CALL THE FOOD SERVICE EPT. AT 574-8210 TO ARRANGE FOR A FOOD SERVICE PERSON (FOR WHICH THERE WILL BE AN EXTRA CHARGE)

LEASE SEE REVERSE FOR ADDITIONAL RULES AND REGULATIONS.

IS AGREED THAT REGULATIONS ADOPTED BY THE BOARD OF EDUCATION FOR USE OF SCHOOL BUILDINGS ILL BE RIGIDLY ENFORCED.

PROVAL DATE

SCHOOL BUSINESS OFFICE

ECKS OR MONEY ORDERS FOR FEES SHOULD BE MADE OUT TO THE BOARD OF EDUCATION AND MAILED TO THE HOOL BUSINESS OFFICE. NO CASH WILL BE ACCEPTED.

O K Monday Thurs Friday

White-Permittee Goldenrod-School Business Office Pink-Principal Blue-Custodian

1002

DEPARTMENT OF EDUCATION - WATERBURY, CONNECTICUT
SCHOOL BUSINESS OFFICE
236 GRAND ST., WATERBURY, CT 06702 CONTRACT#
USE OF BUILDING PERMIT
TYPE OR USE PEN AND PRESS FIRMLY

APPLICANT Nicole Czaporowski NAME OF ORGANIZATION Waterbury Special Olympics

ADDRESS 5 Charles Street (street) Wolcott (city) CT (state) 06716 (zip code) TELEPHONE # 203-721-5449

SCHOOL REQUESTED Crosby DATES Thursdays until 05/30/2024 ROOM(S) Track and Field

OPENING TIME 5:30pm CLOSING TIME 7:00pm PURPOSE Special Olympics Track and Field Practice

ADMISSION (if any) N/A CHARGE TO BE DEVOTED TO N/A

APPROXIMATE NUMBER OF PEOPLE TO BE PRESENT: ADULTS 40 CHILDREN

SIGNATURE OFAPPLICANT [signature] DATE 03/11/2024

PERSON(S) NAME, ADDRESS & PHONE NUMBER RESPONSIBLE FOR SUPERVISION:

Cara Manforte 203-509-4871 Nicole Czaporowski 203-721-5449

In the event that the Board of Education should need to resort to legal proceedings to collect any outstanding balances, the lessee is responsible for any and all attorney's fees, sheriff's fees and court costs associated with said proceedings. NC (PLEASE INITIAL)

SCHEDULE OF RATES: CUSTODIAL FEES:

RENTAL FEES:

MISCELLANEOUS FEES:

SECURITY DEPOSIT $ INSURANCE COVERAGE YES NO

PLEASE READ THE FOLLOWING CAREFULLY

APPLICATION MUST BE RECEIVED AT LEAST THREE (3) WEEKS PRIOR TO THE ACTIVITY.

A COPY OF YOUR INSURANCE MUST ACCOMPANY YOUR APPLICATION (IF APPLICABLE)

5:30 - 7:00 pm

IF SCHOOL IS CANCELLED FOR SNOW OR ANY OTHER REASON - ALL ACTIVITIES ARE CANCELLED ALSO.

THERE WILL BE NO ACTIVITIES DURING SCHOOL OPEN HOUSE.

CANCELLATIONS MUST BE MADE AT LEAST 48 HOURS IN ADVANCE OR YOU WILL BE CHARGED.

Thursdays

POLICE AND FIRE PROTECTION MUST BE ARRANGED AND/OR CANCELLED BY THE RENTER. PLEASE CALL EACH DEPARTMENT FOR INFORMATION. POLICE DEPT. 574-6963 FIRE DEPT. 597-3452

April 4th

CALL THE SCHOOL CUSTODIAN AT LEAST ONE WEEK PRIOR TO YOUR ACTIVITY FOR ANY ARRANGEMENTS RE: PA SYSTEM, LIGHTING, ETC. (FOR WHICH THERE WILL BE AN EXTRA CHARGE).

To

KITCHEN FACILITIES CAN NOT BE USED BY GROUPS WITHOUT SUPERVISION - PLEASE CALL THE FOOD SERVICE DEPT. AT 574-8210 TO ARRANGE FOR A FOOD SERVICE PERSON (FOR WHICH THERE WILL BE AN EXTRA CHARGE)

May 30th

PLEASE SEE REVERSE FOR ADDITIONAL RULES AND REGULATIONS.

IT IS AGREED THAT REGULATIONS ADOPTED BY THE BOARD OF EDUCATION FOR USE OF SCHOOL BUILDINGS WILL BE RIGIDLY ENFORCED.

APPROVAL DATE

SCHOOL BUSINESS OFFICE

CHECKS OR MONEY ORDERS FOR FEES SHOULD BE MADE OUT TO THE BOARD OF EDUCATION AND MAILED TO THE SCHOOL BUSINESS OFFICE. NO CASH WILL BE ACCEPTED.

White-Permittee Goldenrod-School Business Office Pink-Principal Blue-Custodian

Book

DEPARTMENT OF EDUCATION - WATERBURY, CONNECTICUT
SCHOOL BUSINESS OFFICE
236 GRAND ST., WATERBURY, CT 06702 CONTRACT#
USE OF BUILDING PERMIT
TYPE OR USE PEN AND PRESS FIRMLY

APPLICANT Heather Minervini NAME OF ORGANIZATION Waterbury Special Olympics

ADDRESS 56 Potucas Ring Rd (street) Wolcott (city) CT (state) 06716 (zip code) TELEPHONE # (203) 565-8433

SCHOOL REQUESTED Wilby / N.E. DATES 3/26/24-5/28/24 ROOM(S) Pool & Locker Rooms

OPENING TIME 5:00p CLOSING TIME 8:00pm PURPOSE Practice - Special Olympics

ADMISSION (if any) 0 none CHARGE TO BE DEVOTED TO —

APPROXIMATE NUMBER OF PEOPLE TO BE PRESENT: ADULTS 8-12 CHILDREN 20-24

SIGNATURE OFAPPLICANT Heather Minervini DATE 2/28/24

PERSON(S) NAME, ADDRESS & PHONE NUMBER RESPONSIBLE FOR SUPERVISION:
Heather Minervini + Special Olympics -

In the event that the Board of Education should need to resort to legal proceedings to collect any outstanding balances, the lessee is responsible for any and all attorney's fees, sheriff's fees and court costs associated with said proceedings. _____(PLEASE INITIAL)

SCHEDULE OF RATES: CUSTODIAL FEES: _____

RENTAL FEES: _____

MISCELLANEOUS FEES: _____

SECURITY DEPOSIT $_____ INSURANCE COVERAGE _____ YES _____ NO

PLEASE READ THE FOLLOWING CAREFULLY

Tuesdays

APPLICATION MUST BE RECEIVED AT LEAST THREE (3) WEEKS PRIOR TO THE ACTIVITY

A COPY OF YOUR INSURANCE MUST ACCOMPANY YOUR APPLICATION (IF APPLICABLE)

IF SCHOOL IS CANCELLED FOR SNOW OR ANY OTHER REASON - ALL ACTIVITIES ARE CANCELLED ALSO.

THERE WILL BE NO ACTIVITIES DURING SCHOOL OPEN HOUSE.

CANCELLATIONS MUST BE MADE AT LEAST 48 HOURS IN ADVANCE OR YOU WILL BE CHARGED.

POLICE AND FIRE PROTECTION MUST BE ARRANGED AND/OR CANCELLED BY THE RENTER. PLEASE CALL EACH DEPARTMENT FOR INFORMATION. POLICE DEPT. 574-6963 FIRE DEPT. 597-3452

CALL THE SCHOOL CUSTODIAN AT LEAST ONE WEEK PRIOR TO YOUR ACTIVITY FOR ANY ARRANGEMENTS RE: PA SYSTEM, LIGHTING, ETC. (FOR WHICH THERE WILL BE AN EXTRA CHARGE)

KITCHEN FACILITIES CAN NOT BE USED BY GROUPS WITHOUT SUPERVISION - PLEASE CALL THE FOOD SERVICE DEPT. AT 574-8210 TO ARRANGE FOR A FOOD SERVICE PERSON (FOR WHICH THERE WILL BE AN EXTRA CHARGE)

PLEASE SEE REVERSE FOR ADDITIONAL RULES AND REGULATIONS.

IT IS AGREED THAT REGULATIONS ADOPTED BY THE BOARD OF EDUCATION FOR USE OF SCHOOL BUILDINGS WILL BE RIGIDLY ENFORCED.

APPROVAL DATE _____ _____
SCHOOL BUSINESS OFFICE

CHECKS OR MONEY ORDERS FOR FEES SHOULD BE MADE OUT TO THE BOARD OF EDUCATION AND MAILED TO THE SCHOOL BUSINESS OFFICE. NO CASH WILL BE ACCEPTED

White-Permittee Goldenrod-School Business Office Pink-Principal Blue-Custodian

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE ON FINANCE

Item #11.1

February 16, 2023

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee on Finance moves that the Waterbury Board of Education approve a Construction Contract (RFP #7930) with Silktown Roofing for Kennedy High School (partial) Roof Replacement.

WATERBURY
PUBLIC SCHOOLS

Nicholas J. Albini
Chief Operating Officer
(203) 346-2340
nalbini@waterbury.k12.ct.us

EXECUTIVE SUMMARY

DATE: March 14, 2024

TO: Honorable Board of Education Commissioners
Honorable Board of Aldermen Members

FROM: Nicholas J. Albini, Chief Operating Officer

RE: Construction Contract for Roof Replacement at Kennedy High School (RFP#7930) with Silktown Roofing, Inc.

The Education Department respectfully requests your review and approval of a construction contract for Roof Replacement at John F. Kennedy High School in the total amount of $3,032,000, which includes an owner controlled contingency of $150,000 for the above mentioned scope. The contract was initiated under the Request for Proposal #7930 in which Silktown was deemed the lowest bidder and the most qualified. This Agreement is subject to minor, non-substantive changes to be approved by the Office of the Corporation Counsel.

The project consists of a partial roof replacement of the existing building, generally including removal and replacement of existing membrane roofing, metal ladders, roof decking, drains, roof hatches and accessories. The project is being funded through the State of Connecticut's Department of Administrative Services School Construction Grant Program. In order for Silktown to complete all work and services within 120 days from the City's notice to proceed, they will need to begin work over the scheduled April break. This will also minimize the impact on school activities. Silktown has performed satisfactorily at West Side Middle School and Gilmartin Elementary School in the past.

The Education Department will have a representative present at your upcoming meetings to answer any questions you may have regarding this matter. Thank you for your continued assistance on this matter.

c: Dave Heavener, Mike Konopka

CONSTRUCTION CONTRACT
RFP Number 7930
for
Kennedy High School Roof Replacement
between
City of Waterbury
and
Silktown Roofing, Inc.

THIS CONTRACT, effective on the date signed by the Mayor, is by and between the CITY OF WATERBURY, City Hall, 235 Grand Street, Waterbury, Connecticut (the "City") and Silktown Roofing, Inc., located at 27 Pleasant Street, Manchester, Connecticut, a duly registered Connecticut Corporation (the "Contractor").

WHEREAS, the City's purchases under the Agreement will be funded by monies received by the City through the State of Connecticut, Department of Administrative Services (DAS), Office of School Construction Grants and Review (OSCG&R); and

WHEREAS, the Contractor submitted a bid to the City in response to **Request for Proposal ("RFP") Number 7930** for roof replacement and associated work at Kennedy High School using existing architectural designs; and,

WHEREAS, the City accepted the Contractor's bid for **RFP Number 7930;** and

WHEREAS, the City desires to obtain the Contractor's services for roof replacement and associated work at Kennedy High School using existing architectural designs pursuant to the terms set forth in this Contract (the "Project").

NOW THEREFORE, THE PARTIES AGREE AND COVENANT AS FOLLOWS:

1. Scope of Services. The Contractor shall furnish all of the labor, services, equipment, materials, supplies, transportation, and incidentals necessary to complete the Project as specified in this agreement (also referred to herein as "Contract") and such shall be completed in a satisfactory manner, as reasonably determined by the City. All labor, services, equipment, materials, supplies, transportation, and incidentals shall comply with **(i)** any and all applicable local, state and federal laws, statutes, ordinances, rules and regulations, including without limitation all notice requirements thereunder, and **(ii)** generally accepted professional standards.

1.1. The Project consists of roof replacement and associated work at Kennedy High School using existing architectural designs as detailed and described in the Bid Documents in **Attachment A** and which are hereby made material provisions of this Contract. **Attachment A** shall consist of the following, which are attached hereto, are

acknowledged by the Contractor as having been received, or otherwise hereby incorporated by reference as noted below, and all are made a part hereof:

1.1.1. Project plans, specifications, drawings, supplementary conditions
1.1.2. Bid Forms, including the City's Bid documents and the Contractor's responses
1.1.3. any and all amendment(s) and Change Orders, issued by the City after execution of Contract (incorporated by reference)
1.1.4. Non-Collusion Affidavit; Debarment Certificate
1.1.5. Performance Bond and Payment Bond
1.1.6. Certificates of Insurance
1.1.7. All applicable Federal, State and local statutes, regulations charter and ordinances (incorporated by reference)
1.1.8. All permits and licenses (incorporated by reference)

1.2. The entirety of **Attachment A** plus this executed instrument are together deemed the Contract Documents (hereinafter collectively referred to as "Contract Documents"). The City's record copy of the Contract Documents shall control and shall be effective and binding on the Contractor. In the event that any provision in the Contract Documents conflict with any other provision therein, the provision in the component part of the Contract Document first enumerated below shall govern over any other component part which follows it numerically.

i. Contract Amendment(s) and Change Orders
ii. Contract
iii. Contractor's Bid Form
iv. Federal, State, and local laws, regulations, charter and ordinances
v. Technical Specifications
vi. Drawings

2. Representations Regarding Qualification and Accreditation. The Contractor represents that its employees are licensed to perform the scope of work set forth in this Contract. The Contractor further represents that its employees have the requisite skill, expertise and knowledge necessary to perform the scope of work required under the terms of this Contract, including any supplementary work and the City relies upon Contractor's representations.

2.1. Representations regarding Personnel. The Contractor represents that it has, or will secure at its own expense, all personnel required to perform the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the City, unless use of City employees or of personnel having a contractual relationship with the City is approved in writing. As set forth above, all the services required hereunder shall be performed by the Contractor or under its supervision and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under state or local law to perform such services.

2.2. Representations regarding Qualifications. The Contractor hereby represents that, to the extent required by Federal, State and Local statutes, regulations, codes, ordinances, and policies, that the Consultant and/or its employees be licensed, certified, registered, or otherwise qualified, the Consultant and all employees providing services under this Contract, are in full compliance with those statutes, regulations and ordinances. Upon City request, the Consultant shall provide to the City a copy of the Consultant's licenses, certifications, registrations, etc.

3. Responsibilities of the Contractor. The Contractor agrees to properly implement the services required in the manner herein provided. The Contractor shall, in addition to any other responsibilities set forth in this Contract and the Schedules and Attachments hereto, perform the following coincident with the performance of this Contract:

3.1. Due Diligence Obligation. The Contractor acknowledges its responsibilities to examine and to be thoroughly familiar with the City's bid document, including, but not limited to the plans, specifications, drawings and any addenda thereto. The Contractor hereby warrants and represents that prior to the submission of its proposal during the bid process it reviewed or was afforded opportunity, by the City, to review all physical items, facilities, services and functions essential to the satisfactory performance of the services required ("Due Diligence") and thereby certifies that all such items facilities, services and functions are included in this Contract and thereby warrants that:

3.1.1 it conducted or had opportunity to conduct all due diligence prior to the submission of its bid and, accordingly, any additional costs, services or products resulting from the failure of the Contractor to complete Due Diligence prior to submission of its bid proposal shall be borne by the Contractor. Furthermore, the Contractor had the opportunity during the bid process to ask questions it saw fit and to review the responses from the City;

3.1.2 its failure or omission to make investigation and verification of data shall, in no way, be cause for future claim of ignorance of such data or conditions nor shall such failure to investigate and verify be the basis for any claim whatsoever, monetary or otherwise;

3.1.3 it is solely responsible for resolving any issues resulting from its failure to conduct due diligence and it shall assume any and all resulting costs it incurs during the Project;

3.1.4 it was responsible for specifying any changes and disclosing any associated new costs prior to submittal of its bid. In the event the Contractor failed to disclose any such new cost prior to the submittal of its bid, the Contractor hereby covenants that it shall remain solely responsible for, and shall absorb, those non-disclosed costs;

3.1.5 it has familiarized itself with the nature and extent of the Contract Documents, Project, locality, and with all local conditions and Federal, State

and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Project;

3.1.6 it has given the City written notice of any conflict, error or discrepancy that the Contractor discovered in the City's bid documents and other documents for **RFP Number 7930** (collectively "Bid Documents");

3.1.7. it agrees that the Bid Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Project;

3.1.8. it has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Scope of Services which were utilized in the preparation of the plans and specifications;

3.1.9 it has made or caused to be made examinations, investigations, measurements and tests and studies of any applicable reports and related data as it deems necessary for ensuring performance of the Scope of Services at the Contract Price within the Contract Time and in accordance with the other terms and conditions of the Contracts; and certifies no additional examinations, investigations, tests, reports or similar data are or will be required by Contractor for such purposes; and

3.1.10 The Contractor shall not take advantage of any obvious error or apparent discrepancy in the Contract. Notice of any error or discrepancy discovered shall be given immediately in writing to the City, who shall make such corrections and interpretations as it may deem necessary for the completion of the Project in a satisfactory and acceptable manner.

3.2. Safety. Contractor shall perform all work in a safe manner in full compliance with local, state and federal health and safety regulations. Contractor shall immediately correct any dangerous condition caused by or resulting from its work. If it fails to correct, or to act diligently to correct, any condition which the City reasonably believes to be a hazard to persons or property, then immediately upon oral or written notice to any supervisory or similar personnel of Contractor, City may, but shall not be required to, correct same at Contractor's expense. City shall confirm to Contractor in writing any oral notice given within five (5) business days thereafter.

3.3. Storage. In the event the Project site has insufficient, inadequate, and/or improper storage space, it shall be the responsibility of the Contractor to secure, provide and maintain at the Contractor's sole cost and expense **(i)** adequate off-site storage space for equipment, materials, incidentals, etc., and **(ii)** all associated delivery and transportation services. In either event, the Contractor shall assume full responsibility for equipment, materials, incidentals, etc. until both title and risk of loss pass to the City pursuant to Section 8 of this Contract.

3.4. Working Hours. To the extent the Contractor is required to be on City property to render the Contractor's services hereunder, the Contractor shall coordinate its schedule so that work on and at the Project site is performed during the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturday, Sunday and legal holidays unless more exactly specified elsewhere in this Contract or **Attachment A** or unless prior written permission is obtained from the City to work during other times. This provision shall not excuse the Contractor from timely performance under the Contract.

3.5. Cleaning Up. The Contractor shall at all times keep the Project site free from accumulation of waste materials or rubbish caused by Contractor's employees or subcontractors, and at the completion of the work shall remove all rubbish from and about the Project and all tools, scaffolding and surplus materials and shall leave the Project site "broom clean" or its equivalent, unless more exactly specified. In case of dispute, the City may remove the rubbish and charge the cost to the Contractor.

3.6. Publicity. Contractor agrees not to deliberately disclose the fact that the City has entered into or terminated this Contract or disclose any of the terms of the Contract or use the City's name in connection with any publicity, unless the City gives prior written consent to such use of the City's name in each instance.

3.7. Standard of Performance. All Contractor labor, materials, supplies, components, equipment, reports, plans, specifications, drawings, deliverables, incidentals, etc., required to be furnished or delivered under this Contract shall conform in all respects with the requirements set forth in this Contract and shall meet or exceed those standards generally recognized in the Contractor's craft and trade in the State of Connecticut. City specified manufacturer and/or brand name substitution desired by the Contractor shall be made only with the prior written consent of an authorized representative of the City's Using Agency.

> **3.7.1** In carrying out the Project, the Contractor must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor, nor with the normal routine of the institution or agency operating at the Project site.

3.8. Contractor's Employees. The Contractor shall at all times enforce strict discipline and good order among its employees, and shall not employ on the work any unfit person or anyone not skilled in the work assigned. The Contractor shall not, without the prior written approval of the City's Using Agency, substitute, terminate, replace or otherwise remove any Contractor employee expressly named, identified or required in this Contract.

3.9. Subsurface/Unknown Site Conditions. If Project site conditions are encountered which are **(i)** subsurface or otherwise concealed physical conditions or other conditions which differ materially from those indicated in the Contract

Documents, or **(ii)** unknown conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent or common in construction activities of the character provided for in this Contract, then prompt notice by the observing party shall be given to the other party to this Contract before Project site conditions may be disturbed. The Contractor shall thereafter wait for written instructions from the City before proceeding with regard to such conditions.

3.10. Surveys. All surveys required under this Contract shall be performed by a State of Connecticut duly licensed land surveyor. Unless expressly stated to the contrary in Section 1 of this Contract and **Attachment A**, the Contractor shall perform all layout work, all field measurements and all construction staking required, necessary or prudent for the satisfactory prosecution of the Contractor's obligations under this Contract.

3.11. Permits and Licenses. Unless expressly stated to the contrary in Section 1 of this Contract and **Attachment A**, the Contractor shall secure and obtain all permits and all licenses required, or necessary, or prudent for the performance of the Contractor's obligations under this Contract, and for the City's occupancy, use, and operation of the Project.

3.12. Manufacturer's Directions. Where it is required in this Contract that materials, products, processes, equipment or the like be installed or applied in accord with manufacturer's directions, specifications or instructions, it shall be construed to mean that the said application or installation by the Contractor shall be in strict accord with printed instructions furnished by the manufacturer of the material concerned for use under conditions similar to those at the Project site. One (1) copy of such instructions shall be furnished to the City.

3.13. Review by the City. The Contractor shall permit the City and the City's duly authorized representatives and agents to review, at any time, all work performed under the terms of this Contract at any stage of the Project.

3.14. Records Maintenance. The Contractor shall maintain or cause to be maintained all records, books or other documents relative to charges, costs, expenses, fees, alleged breaches of the Contract, settlement of claims or any other matter pertaining to the Contractor's demand for payment.

4. Responsibilities of the City and City Reservation of Rights. Upon the City's receipt of Contractor's written request for specific information, the City will provide the Contractor with existing documents, data and other materials the City agrees are necessary and appropriate to the services to be performed by the Contractor hereunder and the City will endeavor to secure, where feasible and where the City agrees it is necessary and appropriate, materials or information from other sources requested by the Contractor for the purpose of carrying out the services under this Contract.

4.1. The City may, in its sole discretion, designate person(s) to act as the City's Project Engineer(s) and/or Manager(s) and the City may, in its sole discretion, define such person(s) authority and responsibilities.

4.2. The City reserves the right to **(i)** perform work related or unrelated to the Project with the City's own forces adjoining, adjacent to, or in the vicinity of, the Project site and/or **(ii)** let separate contracts related or unrelated to the Project for work and services adjoining, adjacent to, or in the vicinity of, the Project site. In such event, the Contractor shall afford all such parties reasonable opportunity for storage of materials and equipment and for the uninterrupted provision and delivery of such parties' work and/or services. The Contractor shall cooperate with such parties and in the case of a dispute, the decision of the City shall be complied with by all.

5. Contract Time. Contract Time. The Contractor shall Substantially Complete all work and services required under this Contract within **seventy five (75) consecutive calendar days** of the City's written Notice to Proceed and shall reach Final Completion within **one hundred twenty (120) consecutive calendar days** of the City's written Notice to Proceed ("Contract Time").

5.1. Within one (1) week of the City's issuance of its written notice to proceed, and prior to the commencement of any work on the Project site, the Contractor shall submit for the City's written approval a construction progress schedule. On a monthly basis, the Contractor shall deliver to the City a written status report setting forth an analysis and critique of the Contractor's compliance with said schedule.

5.2. Delay Damages

5.2.1 Time is and shall be of the essence for all Project Phase Completion Dates, Milestones, Substantial and Final Completion Date. The Contractor further agrees that the Project shall be prosecuted regularly, diligently and uninterruptedly and at such rate of progress as will insure full completion thereof within the Contract time stated above. It is expressly understood and agreed, by and between the Contractor and City, that the Phase Completion Dates, Milestones, Substantial and Final Completion Date are reasonable for the completion of the Project.

5.2.1.1 The Contractor shall pay to the City the sum of Five Hundred Dollars ($500.00) per calendar day for each and every calendar day for which the Contractor is in default in completing the work beyond the Final Completion Date, Substantial Completion Date, Milestones and Phase Completion Dates, as set forth in Section 5, or the actual damages incurred by the City caused by the delay. The preceding sum is hereby agreed upon not as a penalty, but as delay damages for the delay that the City shall suffer due to such default.

5.2.1.2 The City shall have the right to recover all damages pursuant to any remedy at law or equity including but not limited to deducting the amount of any such damages from any monies due the Contractor under this Contract. The Contractor understands that if the entire Work or of any portion of the Work that the City has agreed to accept separately, if any, is not attained by the applicable completion dates as set forth in the entire Section 5, the City will suffer damages, which are difficult to specify accurately and ascertain. Delay damages based upon delay shall be assessed to compensate the City for all actual loss sustained by the delay, including, but not limited to, loss of use, increased cost of material or services to complete the project, loss of State funding, all other another actual expense, and all other damages allowed by law, including attorney's fees.

5.3 No Damage for Delay

In no event shall the Contractor be entitled to any compensation or recovery of any damages in connection with any Delay, including, without limitation, consequential damages, lost opportunity damages, attorney's fees or other, similar remuneration. The City's exercise of any of its rights or remedies under the Contract Documents, including without limitation, ordering changes in the Work, or directing suspension, rescheduling or correction of the Work, regardless of the extent or frequency of the City's exercise of these rights has been contemplated by the parties and shall not be construed as an exception.

6. Compensation. The City shall compensate the Contractor for satisfactory provision of all of the goods and services set forth in this Contract as follows in this Section 6. No claims for additional compensation will be considered for conditions made known to the Contractor prior to bidding. No claims for additional compensation will be considered on account of failure of the Contractor to completely inform itself as required herein above.

6.1. Fee Schedule. Subject to retainage, limitations, etc. set forth below in this Section 6, the fee payable to the Contractor shall not exceed **Three Million Thirty-Two Thousand Dollars ($3,032,000.00)** (hereafter referred to as "Total Compensation") with the basis for payment being Contractor's Bid set forth in **Attachment A's** "Revised Price Proposal, dated March 6, 2024."

6.1.1 Base Bid …….$ 2,882,000
Owner Contingency Allowance …..…….$ 150,000
TOTAL ……..……$ 3,032,000

6.2. Retainage. At the City's sole discretion, it hereby reserves the right to withhold as retainage 5% percent of any payment (or monetary sum otherwise required by law) owed to the Contractor to be withheld from payments to the Contractor otherwise

payable to the Contractor until such time as the Contractor's work and services to be provided under this Contact are fully completed and accepted in writing by the City. The retainage does not does not include additional sums that the City may withhold due to the Contractor's failure to comply with provisions of this Contract.

6.3. Limitation of Payment. Compensation to the Contractor is limited to those fees set forth in Section 6.1. of this Contract and is further limited to work **(i)** performed in fact, **(ii)** conforming with this Contract, and **(iii)** accepted in writing by a duly authorized City employee. Such compensation shall be paid by the City upon its review and approval of the Contractor's invoices for payment and review of the Contractor's work.

6.3.1 Funding. In the event this Contract is funded, in whole or in part, by Federal and/or State monies, grants, loans, etc, all City payment(s) shall fully comply with all relevant Federal and State statutes and regulations. In the event this Contract is 100% funded by Federal and/or State monies, grants, loans, etc., the aggregate sum of all City payments shall not exceed the aggregate sum of such funding.

This Contract pertains to a project funded in whole or in part, by monies received by the City through the State of Connecticut, Department of Administrative Services (DAS), Office of School Construction Grants and Review (OSCG&R).

Contractor is required to comply with all applicable Federal statutes, executive orders, regulations, rules and interpretive guidance issued by the U.S. Treasury Department, U.S. Office of Management and Budget or any other Federal agency.

This Contract is subject to 2 C.F.R. Part 180 OMB Guidelines to Agencies on Government Debarment and Suspension and the U.S. Treasury's implementing regulations set forth at 31 C.F.R. Part 19 Government Debarment and Suspension.

A listing of Federal Requirements and Representations that Contractor must comply with are set forth in Attachment A to this Contract.

6.3.2 The Contractor and its affiliates are hereby provided with notice that the City reserves the right, in the City's sole discretion, to offset, withhold, or otherwise reduce City payment(s) to the Contractor, in an amount equaling the sum or sums of money the Contractor and/or its affiliates is/are, or become delinquent or in arrears on, regarding the Vendor's and/or its affiliates real and personal property taxes and other payment obligations to the City.

6.4. Bid Costs. All costs of the Contractor in preparing its bid for **RFP Number 7930** shall be solely borne by the Contractor and are not included in the compensation to be paid by the City to the Contractor under this Contract or any other agreement.

6.5. Payment for Services, Materials, Appliances, Employees. The Contractor shall be responsible to the City for the suitability of services, materials and equipment furnished to comply fully with the requirements set forth in this Contract. The Contractor shall promptly pay all employees as their pay falls due, shall pay promptly as they fall due all bills for subcontractors, materials, supplies and services going into the work, and all bills for insurance, bonds, Worker's Compensation coverage, Federal and State Unemployment Compensation, and Social Security charges applicable to this Project. Before final City payment is made, the Contractor shall furnish to the City a sworn, notarized, affidavit stating that all of the foregoing payment obligations have been fully completed.

6.6. Liens. Neither the City's final payment nor any part of the retained percentage, if any, shall become due until the Contractor, if required by the City, shall deliver to the City a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof, and, if required, in either case, an affidavit that so far as the Contractor has knowledge or information, the releases and receipts include all the labor and material for which a lien could be filed; but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the City, to indemnify it against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the City all moneys that the City may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

6.7. Contractor's Certificate of Completion. Upon the Contractor's **(i)** completion of all Project milestones, and **(ii)** Substantial Completion of the Project, and **(iii)** Final Completion of the Project, the Contractor shall, in each instance, file with the City a written, notarized affidavit setting forth the amount of Project work performed. The City reserves the right to verify or challenge by any reasonable means the accuracy of said affidavit.

6.8. Final Payment. All prior estimates and City payments, including those relating to extra or additional work, retainage(s), and holdback(s), shall be subject to correction by this final payment which is throughout this Contract called "Final Payment". No payment, final or partial, shall act as a release to the Contractor or its surety from any Contractor obligation(s) under this Contract.

6.9. Clean Water Fund Project Requirements. In the event this Contract is funded in whole or in part, is reliant upon, or falls within the jurisdiction of the Clean Water Fund and its statutes, regulations and rules, the Contractor shall:

6.9.1 submit Applications for Payment in accordance with the following:

The City must receive the Contractor's Application for Payment by the City's or its designee's, review and recommendation for payment, by the fifteenth calendar day of the month to receive payment within the next 50 days. If not received by the fifteenth calendar day of the month, payment can not be made until 50 days after the fifteenth calendar day of the subsequent month. The Contractor shall provide at the City's request, reasonable documentation to substantiate Contractor's Application for Payment.

6.9.2 Progress and Final Payments

The City will make progress payments on account of the Contract Price on the basis of the Contractor's Applications for Payment, monthly during construction as provided below. All progress payments will be on the basis of the progress of the Scope of Services as determined by the City, according to the schedule of values provided for in the Contract Documents, and approved by the City. Prior to Substantial Completion, progress payments will be limited to an amount equal to 95 percent of the value of the Scope of Services completed. Upon Substantial Completion, the City will pay the amount as specified in the Contract Documents.

7. Warranty of the Contractor. The Contractor warrants to the City that all materials, supplies, components, equipment, etc. furnished under this Contract shall be new and of good quality, except as otherwise expressly stated and permitted by the City elsewhere in this Contract. The Contractor warrants that none of its work shall be defective. The Contractor shall be liable to repair and install and/or replace without charge any service, component, equipment or part thereof which is defective or does not conform with this Contract within the greater of **(i)** 730 calendar days after the City delivers its written notice of its acceptance of the Project and statement therein establishing the final completion date, or **(ii)** that time period or date expressly stated elsewhere in this Contract or **Attachment A**. The City shall also receive the full benefit of the Manufacturing Warranty included in Attachment A hereto.

7.1. The Contractor further warrants that all materials, supplies, services, components, equipment, reports, plans, drawings, deliverables, incidentals, etc., shall be free from any and all defects caused by faulty design, faulty material or poor workmanship. The Contractor shall supply to the City copies of any written manufacturer's warranties and guarantees. The Contractor's foregoing warranty obligations are in addition to, and not a limitation of, all manufacturer's warranties and guarantees, and any other remedy stated in this contract or otherwise available to the City under applicable law.

8. Passing of Title and Risk of Loss.

8.1. City beneficial use of Project equipment, materials, site-work, etc. prior to the Contractor's final completion of the Project or prior to the City's final payment for the Project shall neither act to vest title in the City nor act to transfer risk of loss from the

Contractor to the City. Said title and risk shall pass to the City upon the City's final payment for the Project.

8.2. Contractor and its insurer shall assume the risks of loss or damage to the equipment up to and including the date title passes, except that City shall be responsible for loss or damage caused by City's gross negligence.

8.3. After Project equipment, materials, etc. are delivered to the Project work-site and become operable or functional, the Contractor shall not thereafter remove any such equipment, materials, etc. from the Project work-site without securing the prior written consent of an authorized City Using Agency employee.

9. Indemnification.

9.1. The Contractor shall indemnify, defend, and hold harmless the City, City's Boards, and Board of Education, commissions, agents, officials and employees from and against all claims, suits, damages, losses, judgments, costs and expenses including attorney's fees arising out of or resulting from the delivery of the labor, services, equipment, materials, reports, plans, specifications, design, drawings, deliverables, incidentals, etc. provided that any such claims, suits, damages, losses, judgments, costs or expenses **(i)** are attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including the loss of use resulting there from, **(ii)** are alleged to be caused in whole or in part by any willful, intentional, negligent, or reckless act or omission of the Contractor, its employees, any subcontractor or consultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder; **(iii)** enforcement action or any claim for breach of the Contractor 's duties hereunder or **(iv)** claim for intangible loss(es) including but not limited to business losses, lost profits or revenue, regardless of whether or not it is caused in part by a party indemnified hereunder.

9.2. In any and all claims against the City, Board of Education or any of City's boards, agents, employees or officers by the Contractor or any employee of the Contractor , any subcontractor or consultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 9 above, shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under Worker's Compensation Acts, disability benefit acts or other employee benefit acts.

9**.3**. The Contractor understands and agrees that any insurance required by this Contract, or otherwise provided by the Contractor , shall in no way limit the responsibility to indemnify, defend, keep and hold harmless the City, the Board of Education, any of City's boards, agents, employees as provided in this Contract.

9.4. The Contractor expressly understands and agrees that any performance bond or insurance protection required by this Contract, or otherwise provided by the Contractor, shall in no way limit the responsibility to indemnify, keep and save harmless and defend the City and the City's boards, agents, employees or officers as provided herein.

9.5. Royalties and Patents. The Contractor shall, for all time, secure to the City the free and undisputed right to the use of any and all patented articles and methods used in the work and shall defend at Contractor's own expense any and all suits for infringement or alleged infringement of such patents, and in the event of adverse award under patent suits, the Contractor shall pay such awards and hold the City harmless in connection with any patent suits that may arise as a result of installations made by the Contractor and as to any award made thereunder.

9.6. In the event this Contract and/or the Contractor's, or its subcontractor, work and services provisioned hereunder is/are subject to the provisions of any Federal or State statute or regulations, or the City Charter or City Ordinance, the Contractor shall indemnify, defend and hold harmless the City from any fine, penalty or other amounts imposed on the City under said statutes, regulations, Charter or Ordinances, if caused by Contractor, or its subcontractor, omission or commission.

10. Contract Bonds. The Contractor shall furnish to the City, prior to the execution of this Contract by the City, both a performance bond and a payment bond, each bond written for a penal sum equaling the Section 6 "Total Compensation" amount in a form and with a surety acceptable to the City. The bonds shall continue in effect for the greater of **(i)** the warranty period set forth in Section 7 of this Contract, or **(ii)** 365 calendar days after the Final Completion Date referenced elsewhere in this Contract.

11. Contractor's Insurance.

11.1. The Contractor shall not commence work under this Contract until all insurance required under this Section 11 has been obtained by the Contractor and such insurance has been approved by the City. The Contractor shall not allow any subcontractor to commence work on any subcontract until all insurance required of any such subcontractor has been so obtained and approved by the City. Insurance shall be provided by insurers, satisfactory to the City and authorized to do business in the State of Connecticut, an "A-" Best's Rating and at least a Class V3 or better financial size category as shown in the most current A.M. Best Company ratings.

11.2. At no additional cost to the City, the Contractor shall purchase and maintain the insurance coverages set forth below which shall protect the City from claims which may arise out of or result from the Contractor's obligation under this Contract, whether such obligations are the Contractor's or subcontractor or person or entity directly or indirectly employed by said Contractor or subcontractor, or by any person or entity for whose acts said Contractor or subcontractor may be liable.

11.3. Each insurance policy shall state that the insurance company shall agree to investigate and defend the insured against all claims for damages, even if groundless. If any insurance required herein is to be issued or renewed on a claims made form as opposed to an occurrence form, the retroactive date for coverage shall be no later than the commencement date of this Contract and shall provide that in the event of cancellation or non-renewal, the discovery period for insurance claims ("Tail Coverage") shall be available for at least 60 months.

11.4. The following policies with stated limits shall be maintained, in full force and effect, at all times during which the services are to be performed by the Contractor:

11.4.1 General Liability Insurance: $1,000,000.00 per occurrence, **$2,000,000.00** aggregate and **$2,000,000.00** Products and completed operations aggregate
Providing coverage to protect the City for all damages arising out of bodily injuries, sickness to or death of all persons in any one accident or occurrence and for all damages arising out of destruction of property in any one accident or occurrence.

11.4.2 Automobile Liability Insurance: **$1,000,000.00** combined single limit (CSL) each Accident
Providing coverage to protect the City with respect to claims for damage for bodily injury and or property damage arising out of ownership, maintenance, operation, use or loading and unloading of any auto including hired & non-owned autos.

11.4.3 Workers' Compensation: Statutory Limits within the State of Connecticut: Employers' Liability:
EL Each Accident **$1,000,000.00**
EL Disease Each Employee **$1,000,000.00**
EL Disease Policy Limit **$1,000,000.00**

Contractor shall comply with all State of Connecticut statutes as it relates to workers' compensation.

11.4.4 Excess/Umbrella Liability Insurance: Excess or Umbrella insurance coverage that follows form or sits over General Liability, Automobile Liability and Workers Compensation insurances**. $10,000,000.00** each occurrence and **$10,000,000.00** Aggregate.

11.5. Failure to Maintain Insurance: In the event the Contractor fails to maintain the minimum required coverage as set forth herein, the City may at its option purchase same, and offset the Contractor's invoices for the cost of said insurance.

11.6. Cancellation: The City of Waterbury shall receive written notice of cancellation from the Contractor at least thirty (30) calendar days prior to the date of actual cancellation, regardless of the reason for such cancellation.

11.7. Certificates of Insurance: The Contractor's General, Automobile, Builder's Risk and Excess/Umbrella Liability Insurance policies shall be endorsed to add the City and Board of Education as an additional insured and provide waiver of subrogation on all policies. The insurance afforded the additional insured shall be primary and non-contributory insurance and the coverage and limits provided under the Contractor's policies shall not be reduced or prorated by the existence of any other insurance applicable to any loss the additional insured may have suffered. Prior to the execution of this Contract by the City, the Contractor shall furnish to the City, subject to City approval, certificate(s) of insurance and Additional Insured Endorsement and Waiver of Subrogation Endorsement verifying the above coverages, including the naming of the City of Waterbury, as follows: **"The City of Waterbury and Board of Education are listed as additional insured on a primary and non-contributory basis on all lines of coverage except Workers Compensation. All polices shall include a Waiver of Subrogation."** The City's Invitation to Bid Number must be shown on the certificate of insurance to assure correct filing. The Contractor must supply replacement/renewal certificates at least 30 days prior to the expiration of the policy(ies). Said certificates shall contain a provision that coverage afforded under the policies shall not be cancelled or reduced for any reasons unless notice of than thirty (30) calendar days has been mailed to the City's Using Agency and a copy to the City's Office of Corporation Counsel, 235 Grand Street, Waterbury, CT 06702.

11.8. No later than thirty (30) calendar days after Contractor receipt, the Contractor shall deliver to the City a copy of the Contractor's insurance policies and endorsements and riders.

12. Conformance with Federal, State and Other Jurisdictional Requirements. By executing this Contract, the Contractor represents and warrants that, at all pertinent and relevant times to the Contract, it has been, is and will continue to be in full compliance with all applicable statutes, acts, ordinances, guidelines, resolutions, orders, judgments, decrees, injunctions, rules, and regulations of all government authorities applicable to performance by the Contractor of services hereunder, including those having jurisdiction over its registration and licensing to perform services hereunder; including, but not limited to, the following: EQUAL EMPLOYMENT OPPORTUNUTY; COPELAND ANTI-KICKBACK ACT, as supplemented in the Department of Labor Regulations (29 CFR, Part 3); DAVIS BACON ACT as supplemented by Department of Labor Regulations (29 CFR Part 5); Section 103 and 107 of the Contract Work Hours and Safety Standards Act, as supplemented by the Department of Labor Regulations (29 CFR Part 5); the HOUSING and COMMUNITY DEVELOPMENT ACT of 1974, as amended; TITLE 31 and Section 12-430(7) of the State of Connecticut General Statutes. All applicable sections of the City Charter and Code of Ordinances are incorporated by reference made a part hereof.

12.1. Taxes-Federal, State and Local. The City is exempt from Federal Excise and Transportation, State and Local Sales and Use Taxes, including without limitation, taxes that would otherwise be imposed upon the Contractor for transactions required or necessitated hereunder between it and its subcontractors, suppliers, etc. The Contractor remains liable, however, for any applicable tax obligations it incurs. Moreover, the Contractor represents that the bid and pricing contained in this Contract do not include the amount payable for said taxes.

12.2. Labor and Wages-Federal and State. The Contractor and its subcontractors shall conform to Federal and State of Connecticut labor laws, and all other laws, ordinances, and legal requirements affecting the work in Connecticut.

12.2.1 The Contractor is aware of, and shall comply with, the provisions of Title 31, §53 of the Connecticut General Statutes, latest revision (the "Act"), concerning the payment of minimum wages for work on public facilities. The provisions of the Act are hereby incorporated by reference and made a part of this Contract. The Act provides that the Connecticut prevailing wage law applies to certain remodeling, refurbishing, alteration, repair and new construction. The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in Conn.Gen.Statute 31-53(i), shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each pay day.

12.2.2 The Contractor is aware of, and shall comply with, the provisions of the Federal Davis-Bacon Act, the American Rescue Plan Act of 2021 (ARPA) and the Federal American Recovery and Reinvestment Act of 2009, the provisions of all acts hereby incorporated by reference and made a part of this Contract. The Federal Davis-Bacon Act provides that Federal wage rate laws apply to certain federally funded contracts. The American Recovery and Reinvestment Act ("ARRA") and the American Rescue Plan Act of 2021 provides that Federal wage rate laws apply to all such funded contracts regardless of the contract's dollar value.

12.3. Compliance with Chapters 34, 38, and 39 of the Code of Ordinances of the City. By executing this Contract, the Contractor represents and warrants that, at all pertinent and relevant times to the Contract, it has been, is and will continue to be in full compliance with the provisions of Chapters 34, 38, and 39 of the Code of Ordinances of the City and well as any other relevant provisions of the Charter and the Code of Ordinances.

12.4. Compliance with CONN. GEN. STAT. § 4a-60g, as amended by June 2015 Special Session Public Act 15-5.

12.4.1 Definitions – For purposes of this paragraph:

i. "Small contractor" means any contractor, subcontractor, manufacturer, service company or nonprofit corporation (A) that maintains its principal place of business in the state, (B) that had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year prior to such application, and (C) that is independent. "Small contractor" does not include any person who is affiliated with another person if both persons considered together have a gross revenue exceeding fifteen million dollars.

ii. "Minority business enterprise" means any small contractor (A) fifty-one per cent or more of the capital stock, if any, or assets of which are owned by a person or persons who (i) exercise operational authority over the daily affairs of the enterprise, (ii) have the power to direct the management and policies and receive the beneficial interest of the enterprise, (iii) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, and (iv) are members of a minority, as such term is defined in subsection (a) of section 32-9n, or are individuals with a disability, or (B) which is a nonprofit corporation in which fifty-one per cent or more of the persons who (i) exercise operational authority over the enterprise, (ii) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, (iii) have the power to direct the management and policies of the enterprise, and (iv) are members of a minority, as defined in this subsection, or are individuals with a disability.

iii. "Municipal public works contract" means that portion of an agreement entered into on or after October 1, 2015, between any individual, Contractor or corporation and a municipality for the construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees but excluding any project of an alliance district, as defined in section 10-262u, as amended by this act, financed by state funding in an amount equal to fifty thousand dollars or less.

12.4.2 The Contractor and subcontractor shall comply with the specific requirements of the State of Connecticut Set Aside Program, CONN. GEN. STAT. § 4a-60g, as amended by June 2015 Special Session Public Act 15-5, if the municipal public works contact awarded to the Contactor is funded in whole or in part by state funds.

13. Discriminatory Practices. In performing this Contract, the Contractor shall not discriminate against any employee or applicant for employment, with respect to his or her hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, sex, age, religious creed, disability, national origin or ancestry, marital status, family status, prior psychiatric treatment, health care, military status or source of income or because of a handicap that is unrelated to the employee's or the applicant's ability to perform the duties of a particular job or position. Subcontracts with each subcontractor shall contain a provision requiring non-discrimination in employment as herein specified. This covenant is required pursuant to §93.04 of the Code of Ordinances of the City and any breach thereof may be regarded as a material breach of this Contract. Said provisions with subcontractors shall require conformity and compliance with all local, state and federal laws, rules and regulations and Executive orders pertaining to discrimination and equal opportunity requirements.

13.1. Discrimination Because of Certain Labor Matters. No person employed on the work covered by this Contract shall be discharged or in any way discriminated against because such person has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or related to the labor standards applicable hereunder to its employer.

13.2. Equal Opportunity. In its execution of the performance of this Contract, the Contractor shall not discriminate and shall comply with applicable laws prohibiting discrimination on the grounds of race, color, religion, sex, national origin or citizenship status, age or handicap. The Contractor agrees to comply with all local, state and federal laws, rules and regulations and Executive orders pertaining to discrimination and equal opportunity requirements, and will require the same of all subcontractors

13.3. Contractor Affirmative Action.

13.3.1. Pursuant to CONN. GEN. STAT. § 4a-60, as amended by June 2015 Special Session Public Act 15-5, the following are required for every Municipal Public Works Contract:

(a) Every contract to which an awarding agency is a party, every quasi-public agency project contract and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut; and the contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when

employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved;

(2) The contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission on Human Rights and Opportunities;

(3) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(4) The contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, as amended by this act, 46a-68e, 46a-68f and 46a-86; and

(5) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and section 46a-56, as amended by this act.

(b) If the contract is a public works contract, municipal public works contract or contract for a quasi-public agency project, the contractor agrees and warrants that he or she will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works or quasi-public agency project.

13.3.2. Pursuant to CONN. GEN. STAT. § 4a-60a, as amended by June 2015 Special Session Public Act 15-5, the following are required for every Municipal Public Works Contract:

(a) Every contract to which an awarding agency is a party, every contract for a quasi-public agency project and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or of the state of

Connecticut, and that employees are treated when employed without regard to their sexual orientation;

(2) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(3) The contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said commission pursuant to section 46a-56; and

(4) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor which relate to the provisions of this section and section 46a-56.

14. Good Jobs Ordinance

14.1. Conformance With An Ordinance Concerning The Hiring Of Waterbury Residents On Certain Publicly-Funded Construction Projects.

14.1.1 The Contractors and its Subcontractors shall comply with the specific requirements of "An Ordinance Concerning the Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects" (the "Good Jobs Ordinance"), as may be amended from time to time and as set forth in Chapter 34 of the Code of Ordinances of the City. While the principal provisions of the ordinance are summarized as set forth in paragraphs C-H below, the Contractor does hereby acknowledge that it has reviewed a copy of the Good Jobs Ordinance and that it has read the Ordinance and that Contractor is familiar with the obligations imposed on the Contractor and each Subcontractor by the Good Jobs Ordinance.

14.1.2 Failure of the Contractor or its Subcontractors to comply with the Good Jobs Ordinance shall be a material breach of this Agreement.

14.1.3 This paragraph shall apply to a Covered Project, as that term is defined in the Good Jobs Ordinance, in the City with a value of $500,000.00 or greater and only to the extent permitted by federal and state law.

14.1.4 Definitions. For purposes of this paragraph:

i. “Administrator” shall be defined as it is in the Good Jobs Ordinance.

ii. “Apprentice” shall be defined as it is in the Good Jobs Ordinance.

iii. “Basic Skilled Worker” shall be defined as it is in the Good Jobs Ordinance.

iv. "Contractor” shall be defined as it is in the Good Jobs Ordinance.

v. "Covered Project” shall be defined as it is in the Good Jobs Ordinance.

vi. "Hiring Goal” shall be defined as it is in the Good Jobs Ordinance.

vii. “Resident" shall be defined as it is in the Good Jobs Ordinance.

viii. "Subcontractor" shall be defined as it is in the Good Jobs Ordinance and shall include the Contractor's direct subcontractor providing construction work and all lower tiered (level) providers of construction work.

14.1.5 Hiring Goals. If this Agreement requires the Contractor to perform work on a Covered Project, the Contractor and each Subcontractor shall have as its hiring goals:

i. at least thirty percent (30%) of its total worker hours performed by City Residents, and

ii. at least twenty-five percent (25%) of construction trade jobs shall go to Apprentices and/or Basic Skilled Workers, and

iii. at least seventy percent (70%) of all "new hires" (as that term is defined in the Good Jobs Ordinance) shall be "economically disadvantaged" individuals (as that term is defined in the Good Jobs Ordinance), and

iv. a minimum of five percent (5%) of the construction workforce labor hours will be local resident, minority artisans, and

v. a minimum of five percent (5%) of the construction workforce labor hours will be women, and

vi. a minimum of ten percent (10%) of the total work hours shall be allocated for minorities, or

vii. as may otherwise be required by any superseding Federal or State employment discrimination prohibition laws.

14.1.6 Good Faith Efforts. The Contractor and each Subcontractor shall engage in Good Faith Efforts to comply with the Hiring Goals. For the purposes of this paragraph, the term "Good Faith Efforts" shall have the same meaning as it does in the Good Jobs Ordinance.

The Contractor and each Subcontractor shall individually implement Good Faith efforts to satisfy the Hiring Goals.

14.1.7 Action Plan and Pre-Construction Meeting. Not later than fourteen (14) business days prior to the scheduled commencement date for construction, the Contractor shall submit a written plan-of-action to the City and to the Administrator of the Good Jobs Ordinance defining how the Contractor, and each Subcontractor, shall implement Good Faith Efforts to fulfill the Hiring Goals. Each plan-of-action shall include the anticipated number of job positions required for the Work. Not later than five (5) business day prior to the commencement date of construction, the Contractor must attend a mandatory "pre-construction" meeting with the City to review all plans-of-action and other relevant materials. No construction work shall proceed absent this pre-construction meeting.

14.1.8 Other Contractor Obligations. In addition to the foregoing, the Contractor shall ensure that all Subcontractor contracts and agreements expressly set forth and state as binding obligations therein, subject to appropriate party name change, the above Hiring Goals and Good Faith Efforts. The Contractor shall be accountable for, and liable to the City for, Contractor and each Subcontractor compliance with Hiring Goals and Good Faith efforts.

i. The Contractor shall meet with the Administrator no less than four (4) weeks prior to the commencement of construction on a Covered Project and provide the Administrator with the number of job positions to be created by the project by trade and the qualifications by job tile.

ii. The Contractor shall be required to produce Contractor and Subcontractor documentation that may be required under the provisions of the Good Jobs Ordinance or that the City or the Administrator reasonably believes will assist the City or the Administrator with their evaluation of Hiring Goals and Good Faith Efforts.

iii. The Contractor shall deliver weekly certified payroll records to the City within five (5) working days of the end of each payroll period. Moreover, the Contractor shall require each Subcontractor to create weekly certified payroll records.

iv. The Contractor's and each Subcontractor's payroll records shall include the person-hours, the residential address, race, gender, hiring date, and apprentice (job) classification of all personnel employed under this Agreement and all Contracts and Sub-Contracts thereunder. The Contractor and each Subcontractor shall mark their respective final payroll period records as being final and be signed by an authorized officer or employee.

14.2 Liquidated Damages Applicable To Section 14.1

14.2.1 If the City finds that the Contractor, or a Subcontractor, has failed to achieve Hiring Goals during any five (5) day work period (Monday through Friday), the City shall:

i. issue a written notice to the Contractor specifying the matters constituting such failure and the time period within which Good Faith Efforts documentation must be delivered to the City for its evaluation.

ii. if the Good Faith documentation is not provided or, if provided, it fails to demonstrate compliance with Good Faith Efforts, the Contractor shall, for each failure by the Contractor or a Subcontractor to achieve the Hiring Goals during a full five day work period, pay to the City one thousand dollars ($1,000.00) as liquidated damages.

14.2.2 If the City finds that the Contractor, or a Subcontractor, has failed to deliver weekly certified payroll records to the City within five (5) working days of the end of each payroll period the Contractor shall, as liquidated damages pay one thousand dollars ($1,000.00) to the City for each week of ongoing violation.

14.2.3 The City shall provide the Contractor with an invoice identifying all sums due the City, as liquidated damages, as a result of the Contractor or a Subcontractor's failure to comply with the Good Jobs Ordinance as set forth above.

14.2.4 No portion of any invoice submitted by a Contractor that is subject to liquidated damages shall be paid by the City until such time as all liquidated damages relating to that invoice have been paid to the City.

14.2.5 The foregoing liquidated damages provisions shall be expressly set

forth, subject to appropriate party name adjustments, as material provisions in all Contracts that the Contractor has with Subcontractors and the Contractor is obligated hereunder to enforce compliance in such Contracts with Subcontractors.

14.2.6 Any payment of liquidated damages hereunder shall not preclude a later claim, nor any later finding of a breach, or any payment of additional damages related to such later claim.

15. Housing and Urban Development Section 3 Clause. In the event this Contract is funded, in whole or in part, through Housing and Urban Development assistance, 24 C.F.R. §135.38 may apply and the Contractor shall then be required to comply with the following (referred to as the "Section 3 clause"):

15.1. The work to be performed under this Contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. § 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted Projects covered by Section 3, shall, to the greatest extent feasible, be directed to low and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

15.2. The parties to this Contract agree to comply with HUD's regulations in 24 C.F.R. part 135, which implement Section 3. As evidenced by their execution of this Contract, the parties to this Contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.

15.3. The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

15.4. The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 C.F.R. part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 C.F.R. part 135. The Contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 C.F.R. part 135.

15.5. The Contractor will certify that any vacant employment positions, including training positions, that are filled **(i)** after the Contractor is selected but before the Contract is executed, and **(ii)** with persons other than those to whom the regulations of 24 C.F.R. part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 C.F.R. part 135.

15.6. Noncompliance with HUD's regulations in 24 C.F.R. part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

15.7. With respect to work performed in connection with Section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. § 450e) also applies to the work to be performed under this Contract. Section 7(b) requires that to the greatest extent feasible **(i)** preference and opportunities for training and employment shall be given to Indians, and **(ii)** preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this Contract that are subject to the provisions of Section 3 and section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

16. Termination.

16.1. Termination of Contract for Cause. If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner its obligations under this Contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this Contract, the City shall thereupon have the right to terminate this Contract by either **(i)** giving written notice to the Contractor of a date certain by which Contractor shall, to the written satisfaction of the City, cure after which and without further action by any party, such termination shall automatically become effective and binding, or **(ii)** giving written notice to the Contractor specifying the effective date of such termination at least five (5) business days before the effective date of such termination.

16.1.1 In the event of a termination, all finished or unfinished documents, data, studies, reports, plans, specifications, drawings, supplies, services, etc. prepared by the Contractor under this Contract shall, at the option of the City, become the City's property, and the Contractor shall be entitled to receive just and equitable compensation for any satisfactory work completed for such.

16.1.2 Notwithstanding the above, the Contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of this Contract by the Contractor, and the City may withhold any payments to the Contractor for the purpose of setoff until such time as the exact amount of damages due the City from the Contractor is determined.

16.2. Termination for Convenience of the City. The City may terminate this Contract at any time for the convenience of the City, by a notice in writing from the

City to the Contractor. If this Contract is terminated by the City as provided herein, the Contractor will be paid an amount which bears the same ratio to the total compensation as the services actually performed bear to the total services of the Contractor covered by this Contract, less payments of compensation previously made.

16.3. Termination for Non-Appropriation or Lack of Funding. The Contractor acknowledges that the City is a municipal corporation and that this Contract is subject to the appropriation and disbursement of funds by the City sufficient for this Contract for each budget year in which this Contract is in effect. The Contractor therefore agrees that the City shall have the right to terminate this Contract in whole or in part without penalty to the City in the event that sufficient funds to provide for City payment(s) under this Contract is not appropriated, not authorized, or not made available, or such funding has been reduced. In the event this Contract is subject, in whole or in part, to the appropriation and disbursement of Federal and/or State funds and those Federal and/or State funds are not appropriated or are not disbursed to the City, the Contractor hereby agrees that the City shall have the right to terminate this Contract in whole or in part without penalty to the City.

16.3.1 Effects of Non-Appropriation. If funds to enable the City to effect continued payment under this Contract are not appropriated, authorized or otherwise made available by law, the City shall have the right to terminate this Contract without penalty at the end of the last period for which funds have been appropriated, authorized or otherwise made available by law by giving written notice of termination to the Contractor.

16.3.2 Effects of Reduced Levels of Funding. If funding is reduced by law, or funds to pay the Contractor for the agreed to level of the products, services and functions to be provided by the Contractor under this Contract are not appropriated, authorized or otherwise made available by law, the City may, upon seven (7) business days written notice to the Contractor, reduce the level of the products, services or functions in such manner and for such periods of time as the City may elect. The charges payable under this Contract shall be equitably adjusted to reflect such reduced level of products, services or functions and the parties shall be afforded the rights set forth in this Contract.

16.3.3 No Payment for Lost Profits. In no event shall the City be obligated to pay or otherwise compensate the Contractor for any lost or expected future profits.

16.4. Rights Upon Termination.

16.4.1 Termination for Cause. In the event the City terminates this Contract for cause, the Contractor shall relinquish to the City any applicable interest, title and ownership including, but not limited to, perpetual use of any proprietary rights in and to the products and deliverables delivered to, in possession of and properly invoiced and paid for by (except to the extent such invoiced amount is

disputed) the City. With regard to third party products, the Contractor shall transfer all licenses which it is permitted to transfer in accordance with the applicable third party license. The City shall have no financial obligation to compensate the Contractor for such terminated products unless payment is otherwise approved by the City prior to such termination. The Contractor shall be liable for costs incurred by the City, including but not limited to reasonable attorney fees and all court awarded fees and costs incurred in terminating this Contract in whole or in part.

16.4.2 Termination for Lack of Funding or Convenience. In the event of termination by the City for lack of funding or convenience, the City shall pay the Contractor for all labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc.(including any holdbacks) installed and delivered to the City as of the Termination Date and the Contractor shall relinquish to the City any applicable interest, title and ownership including, but not limited to perpetual use of any proprietary rights in and to said labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc. delivered to, in possession of and paid for by the City (except to the extent any invoiced amount is disputed). The Contractor shall be required to exercise commercially reasonable efforts to mitigate damages. In the event of a termination for Lack of Funding or Convenience the City and the Contractor may negotiate a mutually acceptable payment to the Contractor for reasonable demobilization expenses. Said demobilization expenses, if any, shall be handled in accordance with the provision of this Contract pertaining to changes in the Project.

16.4.3 Assumption of Subcontracts. In the event of termination, the City shall have the right to assume, at its option, any and all subcontracts for products, services and functions provided exclusively under this Contract.

16.4.4 Delivery of Documents. In the event of termination, **(i)** the Contractor shall promptly deliver to the City, in a manner reasonably specified by the City, all documents and other tangible items furnished by, or owned, leased, or licensed by, the City, and **(ii)** the City shall pay the Contractor for all services performed and deliverables completed and accepted (pro-rated for deliverables partially completed) prior to the effective date of the termination (except to the extent any invoice amount is disputed).

17. Force Majeure. Contractor shall not be held responsible for delays nor be subject to liquidated damages when such delays are caused by conditions beyond its control, including without limitation:

17.1. Acts of God, fire, explosion, epidemic, cyclone, flood, war, strikes, revolution, civil commotion, or acts of public enemies; and

17.2. Change of law and order, proclamation, regulation, ordinance, or governmental requirement.

Upon cessation of work for reason of force majeure delays, Contractor shall use its best efforts to meet the schedule set forth in Section 5 of this Contract.

18. Subcontracting. The Contractor shall not, without the prior written approval of the City's Using Agency, subcontract, in whole or in part, any of the Contractor's services. Any subcontractor so approved shall be required to secure and maintain insurance coverage equal to or better than that required of the Contractor and shall name the City as an additional insured party and said subcontractors shall deliver to the City a certificate of insurance evidencing such coverages. All subcontractors shall comply with all federal, state and local, laws, regulations and ordinances but such requirement shall not relieve the Contractor from its requirement that all services provided hereunder shall comply with all Federal, State and local, laws, regulations and ordinances.

18.1. The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by the Contractor.

18.2. The Contractor is responsible for and shall control activities of its subcontractors, and the subcontractors shall consult and cooperate with one another and other contractors working on the Project site. Each subcontractor shall furnish all necessary information to other subcontractors and shall lay out and install its own work so as to avoid any delays or interferences with the work of another. Any cost for changes, cutting and/or repairing, made necessary by failure to observe the above requirements shall be borne by the Contractor or subcontractor responsible for such failure or neglect.

18.3. The Contractor shall not, without the prior written approval of the City's Using Agency, substitute, terminate, replace or otherwise remove a subcontractor.

19. Assignability. The Contractor shall not assign any interest in this Contract, and shall not transfer any interest in the same (whether by assignment or novation) without the prior written approval of the City; provided, however, that claims for money due or to become due the Contractor from the City under this Contract may be assigned to a bank, trust, company, or other financial institution, or to a Trustee in Bankruptcy, without such approval. Notice of any such assignment or transfer shall be furnished promptly to the City.

20. Audit. The City reserves the right to audit the Contractor’s books of account in relation to this Contract any time during the period of this Contract or at any time during the twelve month period immediately following the closing or termination of this Contract. In the event the City elects to make such an audit, the Contractor shall immediately make available to the City all records pertaining to this Contract, including, but not limited to, payroll records, bank statements and canceled checks.

21. Interest of City Officials. No member of the governing bodies of the City, and no other officer, employee, or agent of the City who exercises any functions or responsibilities in connection with the carrying out of the Project to which this Contract pertains, shall have any personal interest, direct or indirect, in this Contract.

22. Interest of Contractor. The Contractor covenants that it presently has no interest and shall not acquire any interest, direct or indirect, in the Project or any parcel of land therein or any other interest which would conflict in any manner or degree with the performance of its services hereunder. The Contractor further covenants that in the performance of this Contract no person having any such interest shall be employed.

23. Entire Contract. This Contract shall constitute the complete and exclusive statement of the contract between the parties as it relates to this transaction and supersedes all previous agreements and understandings, whether written or oral, relating to such subject matter. Any amendment to this Contract must be in writing and agreed to and executed by the City and the Contractor, and must comply with the City's Charter and Code of Ordinances.

24. Independent Contractor Relationship. The relationship between the City and the Contractor is that of client and independent contractor. No agent, employee, or servant of the Contractor shall be deemed to be an employee, agent or servant of the City. The Contractor shall be solely and entirely responsible for its acts and the acts of its agents, employees, servants and subcontractors during the performance of this Contract.

25. Severability. Whenever possible, each provision of this Contract shall be interpreted in such a manner as to be effective and valid under applicable law. If any provision of this Contract, however, is held to be prohibited or invalid under applicable law, such provision shall be deemed restated to reflect the original intentions of the parties, as nearly as possible in accordance with applicable law, and if capable of substantial performance, the remaining provisions of this Contract shall be enforced as if this Contract was entered into without an invalid provision. If the ruling and/or controlling principle of law or equity leading to the ruling is subsequently overruled, modified or amended by legislation, judicial or administrative action, then the provision(s) in question as originally set forth in this Contract shall be deemed valid and enforceable to the maximum extent permitted by the new controlling principal of law or equity.

26. Survival. Any provisions of this Contract that impose continuing obligations on the parties shall survive the expiration or termination of this Contract for any reason.

27. Changes in the Project: Change Orders.

27.1. Requests for Change Orders. The City reserves the right on its own volition, or based upon a proposal for a Change Order submitted in written form with a thorough explanation by the Contractor, to request from time to time any changes to the requirements and specifications of this Contract and the products to be provided and the functions and services to be performed by the Contractor under this Contract. Such changes must be authorized by the City. The City will not approve of any change

orders, deletions, additions, or additional work items to the Scope of Services or any change in the terms and conditions of this Contract except by means of a City authorized amended Scope of Services, applicable and restricted to those items set forth in §1, above, or Change Order issued as set forth in this section, except in the event of an emergency endangering life or property.

27.2. Procedures.

27.2.1 The Contractor's Response to a Change Request.

i. Within thirty (30) calendar days after receipt of a request by the City for any such change or such other period of time as the Parties may mutually agree to in writing, the Contractor shall submit to the City a proposal describing any changes in Contract Milestones or Contract completion dates, products, functions, timing of delivery, assignment of personnel, and the like, and any associated price adjustment. The Contractor's proposal shall describe, in detail, the basis for the proposed price adjustment, including the charges for any products required to implement the change request.

ii. To the extent that additional cost or cost savings result from a change in required products, the Contractor shall obtain any additional products and provide them to the City at a negotiated price acceptable to the City and the Contractor. Similarly, if the change request is expected to result in a reduction in products required to perform the services, the Contractor's charges shall be reduced by the cost savings resulting from the products eliminated by the change request**.**

27.2.2 City's Acceptance of Change Request. If the City accepts the Contractor's proposal, the City shall issue a change order referencing the Contractor's proposal and both parties shall sign the change order. The Contractor shall not implement any change request until the City has issued a valid, properly executed, change order.

27.2.3 City's Rejection of Change Request. If the City does not accept the Contractor's proposal, the City may within two weeks of such non-acceptance: **(i)** withdraw its change request; or, **(ii)** modify its change request, in which case the procedures set forth above shall apply to the Contractor's response to the modified change request.

27.3. City Discretion. The City may, in its sole discretion, approve the proposed Change Order and shall forward same for additional signatures under the following conditions: **(i)** If it conforms to provisions of applicable laws, and **(ii)** if it is consistent with this Contract, and **(iii)** if the time of performance of this Contract will not be unreasonably delayed, **(iv)** the Final Completion date is not changed, **(v)** if the Change Order requires a change to the Final Completion date, such change has been authorized by an approved, executed, written Amendment to this Contract, and **(vii)** if the Change

Order requires an increase in the price of the Contract, the City **(1)** has sufficient funds, and **(2)** if a budget transfer is required to cover the cost of the proposed Change Order, such transfer has secured the written approval of the Board of Aldermen and other required regulatory agencies.

27.4. Change Orders Governed by the Provisions of this Contract. All work performed under a Change Order is governed by the provisions of this Contract.

28. Conflicts or Disputes. This Contract represents the concurrence between the City and the Contractor and governs all disputes between them. In the instance of a conflict or dispute over issues not specifically referenced within the Contract, the following documents shall be used as historical documents, without regard to the order of precedence, to resolve such conflicts or disputes, as follows: **(i)** the City's **RFP Number 7930** and **(ii)** the Contractor's Bid response to **RFP Number 7930**, dated February 1, 2024, as amended. Said historical documents are attached hereto as part of **Attachment A.**

28.1. Procedure. This procedure supersedes all statements to the contrary occurring either in proposals or other prior agreements, oral or written, and all other communications between the parties relating to this subject.

28.2. Presumption. This Contract or any section thereof shall not be construed against any party due to the fact that the Contract or any section thereof was drafted by such party.

29. Disputes; Legal Proceedings; Waiver of Trial by Jury and Continued Performance. The Contractor agrees that its waives a trial by jury as to any and all claims, causes of action or disputes arising out of this Contract or services to be provided pursuant to this Contract. Notwithstanding any such claim, dispute or legal action, the Contractor shall continue to perform services under this Contract in a timely manner, unless otherwise directed by the City.

30. Binding Contract. The City and the Contractor each bind themselves, and their successors, assigns and legal representatives to the other party to this Contract and to the successors, assigns and legal representatives of such other party with respect to all covenants of this Contract.

31. Waiver. Any waiver of the terms and conditions of this Contract by either of the parties hereto shall not be construed to be a waiver of any other term or condition of this Contract.

32. Governing Laws. This Contract, its terms and conditions and any claims arising there from shall be governed by the laws of the State of Connecticut.

33. Notice. Except as otherwise specifically prohibited in this Contract, whenever under this Contract approvals, authorizations, determinations, notices, satisfactions or waivers are required or permitted, such items shall be effective and valid only when given in writing

signed by a duly authorized officer of the City or the Contractor, and delivered in hand or sent by mail, postage prepaid, to the party to whom it is directed, which until changed by written notice, are as follows:

Contractor: Silktown Roofing, Inc.
27 Pleasant Street
Manchester, CT 06040

City: City of Waterbury
Chase Municipal Building
235 Grand Street
Waterbury, CT 06702

34. City Code of Ordinances, Ethics and Conflict of Interest Code, Provisions.
The Person (the term "Person" shall herein be as defined in Section 38 of the City's Code of Ordinances) supplying the labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc. under this Contract shall comply with all applicable Federal, State and Municipal statutes, regulations, charters, ordinances, rules, etc, whether or not they are expressly stated in this Contract, including but not limited to the following:

34.1. It shall be a material breach of this Contract, and, except as may be permitted by regulations or rulings of the City of Waterbury Board of Ethics it shall be a violation of the City's Code of Ordinances, for any Public Official, City Employee or Member of a Board or Commission who is participating directly or indirectly in the procurement process as set forth in the City's Code of Ordinances, including those participating in exempt transactions, to become or be the employee of any person contracting with the governmental body by whom the Official, Employee, or Board or Commission member is employed or is a member.

34.2. It shall be a material breach of this Contract, and it shall be a violation of the City's Code of Ordinances for any Person to offer, give, or agree to give any current or former Public Official, Employee or Member of a Board or Commission, or for such current or former Public Official, Employee or Member of a Board or Commission to solicit, demand, accept or agree to accept from another Person, a gratuity or an offer of employment in connection with any: decision; approval; disapproval; recommendation; preparation of any part of a program requirement or a requisition; influencing the content of any specification or procurement standard; or rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a Contract or Purchase Order, or to any solicitation or proposal therefore.

34.3. It shall be a material breach of this Contract and it shall be a violation of the City's Code of Ordinances for any payment, Gratuity, or offer of employment to be made as an inducement for the award of a subcontract or order, by or on behalf of a subcontractor, the prime Contractor or higher tier subcontractor or any Person associated therewith, under a Contract or Purchase Order to the City.

34.4. The value of anything transferred or received in violation of the City's Charter, Code of Ordinances, and/or regulations promulgated there under, by any Person subject to said Charter and/or Ordinances may be recovered by the City.

34.5. Upon a showing that a subcontractor made a kickback to the City, a prime Contractor or a higher tier subcontractor in connection with the award of a subcontract or order there under, it shall be conclusively presumed that the amount thereof was included in the price of the subcontract or order and ultimately borne by the City and will be recoverable hereunder from the recipient. In addition, said value may also be recovered from the subcontractor making such kickbacks. Recovery from one offending party shall not preclude recovery from other offending parties.

34.6. It shall be a material breach of this Contract and it shall be a violation of the City's Code of Ordinances for a Person to be retained, or to retain a Person, to solicit or secure a contract with the City upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee; and every Person, before being awarded a City Contract, shall deliver to the City, on a City authored form, a representation that such Person has not retained anyone in violation of this subsection 34.6, the failure to deliver said form being a material breach of this Contract and a violation of the City's Code of Ordinances. Note, however, this subsection 34.6 shall not apply to full-time Employees who, as a condition of their employment, may be entitled to bonuses or other fees in accordance with their employment relationship.

34.7. The Person hereby expressly represents that he/she/it has complied with those sections of the City's Code of Ordinances requiring that said Person has **(i)** delivered to the City an affidavit, on a City authored form, stating that the Person and its affiliates have no delinquent taxes or other financial obligations owned to the City; **(ii)** filed the City authored financial disclosure statement form as set forth in the City's Code of Ordinances regarding disclosure of financial interests; **(iii)** delivered to the City a written acknowledgement, on a City authored form, evidencing receipt of a copy of the "Ethics and Conflict of Interest" ordinance for the City of Waterbury and hereby expressly represents that said Person is in full compliance with the entirety of said Code of Ordinances; and **(iv)** filed a current list of all taxable personal and real property as required by the State of Connecticut General Statutes. Any violation of this subsection 34.7 shall be deemed a material breach of this Contract and shall be a violation of the City's Code of Ordinances.

34.8. The definitions set forth in the City's Code of Ordinances shall be the primary source for interpretation of the forgoing subsections 34.1-34.7.

34.9. The Contractor is hereby charged with the requirement that it shall have knowledge of, and shall fully comply with, all relevant provisions of the City's Charter and all relevant provisions of the City's Code of Ordinances, including without limitation Chapters 93, titled "Discriminatory Practices", Chapter 38 titled "Centralized Procurement System", and Chapter 39 titled "Ethics and Conflict of Interest", of said Code as may be amended from time to time.

34.10 The Contractor hereby acknowledges receipt of a copy of the Chapters 38 and 39 of City's Ordinance regarding Procurement, Ethics, and Conflicts of Interest and has familiarized itself with said Code and hereby agrees to adhere to said Code. The text of Chapters 38 and 39 of said Code may be obtained from the Office of the City Clerk of the City and on the internet at the City Clerk's web site: https://www.waterburyct.org/services/city-clerk/code-of-ordinances [click link titled "The City of Waterbury Code of Ordinances *Revised 12/31/19"*. For Chapter 38, click on "TITLE III: ADMINISTRATION", then click on "CHAPTER 38: CENTRALIZED PROCUREMENT SYSTEM". For Chapter 39, click on "TITLE III: ADMINISTRATION", then click on "CHAPTER 39: ETHICS AND CONFLICTS OF INTEREST".

34.11. The Contractor is hereby charged with the requirement that it shall have knowledge of, and shall fully comply with, the City's Ordinance Sections 34.15 through 34.99 entitled, "Ordinance Concerning the Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects," and the State of Connecticut Legislature's Special Act No. 01-1.

34.12. Every Person who conducts business with, contracts, with or provides commodities or services to the City, is charged with notice of the extent of the powers and authority, and the limitations thereon, of the Public Officials and Employees of the City, as set forth in the charter of the City, the Code of Ordinances and any Regulations or Policies pertaining thereto. In particular, and without implying any limitation as to its applicability, it applies to all Persons who participate in the procedures pertaining to the Centralized Procurement System as set forth in Chapter 38, and the Ethics and Conflict of Interest provisions set forth in Chapter 39 of the Code of Ordinances.

34.13. INTEREST OF CITY OFFICIALS. No member of the governing body of the City, and no other officer, employee, or agent of the City who exercises any functions or responsibilities in connection with the carrying out of the project, to which this agreement pertains, shall have any personal interest, direct or indirect, in this agreement.

34.14. PROHIBITION AGAINST CONTINGENCY FEES. The Contractor hereby represents that it has not retained anyone to solicit or secure a contract with the City upon an agreement or understanding for a commission, percentage, brokerage or contingency fee.

34.15. FREEDOM OF INFORMATION ACT NOTICE. Pursuant to State statute,

in the event the total compensation payable to the Contractor set forth in Section 6 of this Contract is greater than $2,500,000.00, the City is entitled to receive a copy of any and all Contractor records and files related to the performance of this Contract and those records and files are subject to the Freedom of Information Act ("the Act") and may be disclosed by the City pursuant to the Act.

35. Definitions. Whenever the following, words, terms, etc. appear in this Contract, the intent and meaning shall be as follows:

35.1 Additional Work: Work required by the City that involves a substantial addition to, deduction from or modification of the Contract Documents.

35.2 Bid or Proposal: The form on which the bidder is to submit a bid for the Work contemplated.

35.3 Bidder: A person, partnership, corporation or other business organization submitting a bid on the form for the Work contemplated.

35.4 City: The City of Waterbury, acting directly or through specifically authorized personnel.

35.5 Construction Supervisor: An employee of the City of Waterbury, or other City duly authorized person.

35.6 Contract Time: The number of days as stated in the Contract to: (i) achieve Substantial Completion, (ii) Final Completion.

35.7 Equal: The recognized equivalent in substance and function; considering quality, workmanship, economy of operation, durability and suitability for purposes intended, and not constituting a change in the Work specified. Whenever the words "equal" or "equals" or words of like import are used, it shall be understood they mean "equal" in the opinion of the City.

35.8 Final Completion: The time at which the Project has progressed to the point where, in the opinion of the City, the Project is complete such that it is ready for final payment as evidenced by the City's, or its duly authorized City representative's, written recommendation of final payment. The terms "finally complete" and "finally completed" as applied to the Project refer to Final Completion.

35.9 Notice to Proceed: A letter from the City which shall state the date of execution of the Contract and specifically advise the Contractor to begin work on the Contract.

35.10 Plans: All drawings or reproductions of drawings pertaining to the construction of the work contemplated and its appurtenances.

35.11 Project Engineer or Manager: An employee of the City or a person, partnership, corporation or other business organization under contract with the City, commissioned to perform construction administration and inspection duties during construction.

35.12 Shop Drawings: Drawings, diagrams, schedules, performance charts, brochures and other materials prepared by the Contractor or subcontractors, manufacturers or distributors which illustrate some portion of the work.

35.13 Specifications or Technical Specifications: The description, provisions and other requirements pertaining to the materials, methods and manner of performing the Project.

35.14 Subcontractor: A person, partnership, corporation or other business organization supplying labor and/or materials for work at the site of the Project to and under agreement with the Contractor.

35.15 Substantial Completion: The time at which, in the opinion of the Engineer, the Project (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Project (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Project mean Substantial Completion thereof.

35.16 Substitution: A replacement of specified material, device or equipment which is sufficiently different in substance, function, quality or workmanship to become the subject of a Change Order.

35.17 Supplementary General Conditions: An extension to the terms, conditions, and provisions set forth in this document as additional, material, provisions of this Contract.

35.18 Work: All plant, labor, materials, services, supplies, equipment and other facilities and items necessary for, or incidental to, the completion of the terms of the Contract.

35.19 Using Agency: The City of Waterbury Board of Education

[Signature page follows]

IN WITNESS WHEREOF, the parties hereto execute this Contract on the dates signed below.

WITNESSES:

_____

_____

CITY OF WATERBURY

By:_____
Paul K. Pernerewski, Jr., Mayor

Date: _____

WITNESSES:

_____

_____

SILKTOWN ROOFING, INC.

By:_____

Its _____

Date: _____

ATTACHMENT A

1.1.1. Project plans, specifications, drawings, supplementary conditions
1.1.2. Bid Forms, including the City's Bid documents and the Contractor's responses
1.1.3. any and all amendment(s) and Change Orders, issued by the City after execution of Contract (incorporated by reference)
1.1.4. Non-Collusion Affidavit; Debarment Certificate
1.1.5. Performance Bond and Payment Bond
1.1.6. Certificates of Insurance
1.1.7. All applicable Federal, State and local statutes, regulations charter and ordinances (incorporated by reference)
1.1.8. All permits and licenses (incorporated by reference)

INDEX TO THE SUPPLEMENTARY CONDITIONS OF THE CONTRACT

.ARTICLE NUMBER	TITLE	PAGE NUMBER
1.	PLANS AND SPECIFICATIONS AT THE SITE	38
2.	CONSTRUCTION PROGRESS SCHEDULE	38
3.	SCHEDULE OF VALUES; APPLICATION FOR PAYMENT .	39
4.	PARTIAL PAYMENTS	39
5.	CONSTRUCTION EQUIPMENT.....	39
6.	INSPECTION AND TESTS.....	39
7.	UTILITIES.....	40
8.	PROGRESS MEETINGS.....	40

1. PLANS AND SPECIFICATIONS AT THE SITE

The Contractor shall maintain at the Project site two (2) copies of all Plans, Specifications, Addenda, approved Shop Drawings, Change Orders and other Modifications, Schedules and Instructions, in good order. One copy is to be marked to record all changes made during construction. These shall be available at all times to the Project Engineer and the City or their authorized representatives. At the conclusion of construction, the Contractor is to turn one (1) corrected set over to the Project Engineer.

2. CONSTRUCTION PROGRESS SCHEDULE

A. Within one (1) week after the Notice to Proceed, and prior to commencement of any work on site, the Contractor shall submit for the approval of the City three (3) copies of a Construction Progress Schedule which shall be developed by the Contractor through cooperation of the Project Engineer or authorized personnel. At the same time, the Contractor shall submit the Schedule of Values, Sedimentation and Erosion Control measures, Water Control Plan and Environmental Protection Plan.

B. The Progress Schedule shall indicate the proposed scheduling of the items of work listed in the various divisions of the work in the specifications. The schedule shall also indicate all subcontractors to be utilized on the Contract and the portions of the Contract that they will be performing. The Contractor shall evaluate the status of the Project at least monthly, comparing it to the original schedule which shall be revised as required.

3. SCHEDULE OF VALUES; APPLICATION FOR PAYMENT

A. Within one (1) week after the Notice to Proceed, as a basis for estimating partial payments, the Contractor shall submit for the approval of the City a certified Schedule of Values, broken down into quantities and unit costs for the various parts of the work, divided as may be directed and aggregating the total sum of the Contract; and if required, he shall submit evidence supporting this schedule.

B. The Contractor's requisition for payment shall be subdivided into items to correspond with the approved schedule and shall be in such numbers of copies as may be designated by the City.

4. PARTIAL PAYMENTS

A. The City will review the Contractor's monthly requisitions for Partial Payments to arrive at what is, in its opinion, a fair and just estimate of the materials suitably stored on the site and the amount of work performed on the Contract. At its discretion, the City may allow to be included in the monthly requisitions materials stored off the site. In the event the City allows the Contractor to include in its requisitions payments for materials stored off the site, the Contractor shall also submit any additional bonds and/or insurance certificates relating to off-site stored material, and follow such other procedures as may be required by the City.

B. In making such Partial Payments for the Project, retainage shall be held in accordance with Clean Water Funding Regulations (if applicable).

5. CONSTRUCTION EQUIPMENT

A. The Contractor shall furnish and maintain, at its own cost and risk, all tools, apparatus and appliances, hoists and/or cranes and power for same, scaffolding, runways, ladders, temporary supports and bracing and all other similar work or material necessary to insure speed, convenience and safety in the execution of its Contract. All such items shall be subject to approval of the City, upon Engineer's recommendation, as to general stability, type and location, but the responsibility for proper design, strength and safety shall remain with the Contractor. All such items shall comply with OSHA regulations and all other applicable codes, statutes, rules and regulations.

B. The Contractor shall provide all drains, drainage, ditches and pumping apparatus (including power and attendance for same) that may be necessary to keep all excavations and subgrade work free from water.

6. INSPECTION AND TESTS

A. All material and workmanship (if not otherwise designated by the Specifications)

shall be subject to inspection, examination and testing by the City and/or Project Engineer at any and all times during manufacture and/or construction and at any and all places where such manufacture and/or construction is carried on. All tests shall be made at the Contractor's expense. Notice of the time of all tests to be made at the site shall be given to all interested parties.

B. Without additional charge, the Contractor shall promptly furnish all reasonable facilities, labor and materials necessary to make tests safe and convenient. Special, full size and performance tests shall be as described in the Specifications.

C. If, at any time before final acceptance of the entire Project, the City and/or Project Engineer considers it necessary or advisable to examine any portion of the Project already completed by removing or testing out the same, the Contractor shall upon request furnish promptly all necessary facilities, labor and materials. If such work is found to be defective in any material respect because of a fault of the Contractor or any of its subcontractors, or if any work shall have been covered over without the approval or consent of the City (whether or not it is found to be defective), the Contractor shall be liable for testing costs and all costs of correction, including labor, material, services of required consultants, additional supervision and administrative costs.

7. UTILITIES

A. The accuracy and completeness of the utility information shown on the Plans is not guaranteed. The Contractor shall make its own investigation of the extent and location of utilities and of the possibility of relocation work by the utility companies, and shall plan its operations accordingly. No claim for any delays, damage or extra work occasioned thereby will be allowed.

B. The Contractor shall allow others access to the Project for the purpose of placing, relocating or maintaining utilities, and he shall cooperate in every way in the performance of this Project.

C. The Contractor shall notify the utility owners well in advance of the time the Contractor proposes to perform any work which would endanger utility installations, and the Contractor shall cooperate with the utility owners in relocating and/or protecting such installations during construction operations.

D. No payment will be made to the Contractor for locating, protecting and making arrangements for relocating public utilities or for any delays caused thereby. The Contractor shall include all costs of this Project in other scheduled items of the Contract.

E. The Contractor shall contact "Call Before You Dig" at least two days prior to commencing any excavation on the site (toll free in Connecticut at 1-800-922-4455).

8. PROGRESS MEETINGS

Progress meetings will be held weekly at locations, dates and times selected by the OWNER for the purpose of reviewing, scheduling and coordinating the Project's progress as well as other matters.

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Kennedy High School Roof Replacement
RFP# 7930
Project 151-0307RR

The City of Waterbury, Department of *Education* (hereinafter "City"), is seeking a contractor for *Kennedy High School Roof Replacement.*

A. Background and Intent

Roof replacement at Kennedy High School using existing architectural design.

B. Qualifications

Eligible proposers will be those consultants, businesses, and institutions that have the following qualifications:

1. Experience and expertise in regard to providing the types of or similar services as those outlined in the Scope of Services in this RFP
2. A proposer with a proven track record in providing these types of or similar services for municipal governments.
3. Knowledge of federal and State laws and regulations governing the services outlined in the scope of services.

C. Scope of Services

Roof replacement & associated work using existing architectural designs at Kennedy High School as per Attachment G.

D. Agreement Period

The agreement period for any contract or purchase order resulting from this RFP is anticipated to be 120 days from fully executed contract.

E. Insurance

The respondent shall provide insurance as set for in **Attachment D** provided by insurers, satisfactory to the City and authorized to do business in the State of Connecticut, an "A-" Best's Rating and at least a Class V3 or better financial category as shown in the most current A.M. Best Company ratings.

F. General Information

1. The City is an Equal Opportunity and Affirmative Action employer and does not discriminate in its hiring, employment, or business practices. The City is committed to complying with the Americans with Disabilities Act of 1990 (ADA) and does not discriminate on the basis of disability, in admission to, access to, or operation of its programs, services, or activities.

2. ***There will be a <u>mandatory</u> Information Session with respect to this RFP on January 18, 2024 at 10:00AM at Kennedy High School 422 Highland Ave Wtby CT 06708. ATTENDANCE AND ON-TIME SIGN-IN AT THE Information Session IS MANDATORY. THOSE LATE/NOT ATTENDING WILL NOT BE ELIGIBLE TO SUBMIT A PROPOSAL.***

3. Proposers must complete and sign the items and any forms included in <u>Attachment A</u>. (Contract Compliance Packet).

4. All questions and communications about this request for Proposal and submission requirements must be directed to the City of Waterbury ProcureWare website and must be received **by 2:00 PM on January 23, 2024**. Prospective proposers must limit their contact regarding this RFP to the Purchasing Director or such other person otherwise designated by the Purchasing Director. Responses to questions submitted by the above date or identified at any Information Session to be held in regard to this RFP, **along with any changes or amendments to this RFP**, will be available via the City of Waterbury ProcureWare website **by January 26, 2024, 2:00 PM**. It shall be the responsibility of the proposer to download this information. If you have any procedural questions in this regard, please call the Purchasing Director at (203) 574-6748.

G. Management

Any contract or purchase order resulting from this RFP will be managed by the Department of Education.

H. Conditions

All those submitting proposals must be willing to adhere to the following conditions and must positively state this in the proposal:

1. All proposals in response to this RFP are to be the sole property of the City. Proposers are encouraged **not** to include in their proposals any information which is proprietary. All materials associated with this procurement process are subject to the terms of state laws defining freedom of information and privacy and all rules, regulations and interpretations resulting from those laws.

2. Any product, whether acceptable or unacceptable, developed under a contract awarded as a result of the RFP is to be the sole property of the City.

3. The timing and sequence of events resulting from this RFP will ultimately be determined by the City.

4. The proposer agrees that the proposal will remain valid for a period of 90 days after the closing date for the submission and may be extended beyond that time by mutual agreement.

5. The City may amend the terms or cancel this RFP any time prior to the execution of a contract or purchase order for these services if the City deems it to be necessary, appropriate or otherwise in the best interests of the City. Failure to acknowledge receipt of amendments, in accordance with the instructions contained in the amendments, may result in a proposal not being considered. At his option, the City's Director of Purchasing may provide all proposers with a limited opportunity to remedy any technical deficiencies identified by the City in their initial review of proposals.

6. The proposer must certify that the personnel identified in its response to this RFP will be the persons actually assigned to the project. Any additions, deletions or changes in personnel from the proposal during the course of the agreement period must be approved by the City, with the exception of personnel who have terminated employment. Replacements for personnel who have terminated employment are subject to approval by the City. At its discretion, the City may require the removal and replacement of any of the proposer's personnel who do not perform adequately, regardless of whether they were previously approved by the City.

7. All subcontractors hired by the proposer awarded a contract or purchase order as a result of this RFP must have prior approval of the City prior to and during the agreement period.

8. Any costs and expenses incurred by proposers in preparing or submitting proposals are the sole responsibility of the proposer.

9. A proposer must be prepared to present evidence of experience, ability, financial standing, and any other information deemed necessary by the City to satisfactorily meet the requirements set forth or implied in the proposal.

10. No additions or changes to the original proposal will be allowed after submittal, except as may be allowed by the City, at its option, in accordance with Section H.5. of this RFP. While changes are not permitted, clarification of proposals may be required by the City at the proposer's sole cost and expense. The final price and scope of services of any contract or purchase order resulting from this RFP may be negotiated with responsible proposers.

11. The proposer may be required to give presentations to the extent necessary to satisfy the City's requirements or needs. In some cases, proposers may have to give presentations or further explanation to any RFP selection committee established by the City.

12. The proposer represents and warrants that the proposal is not made in connection with any other proposer and is in all respects fair and without collusion or fraud. The proposer further represents and warrants that it did not participate in any part of the RFP development process, had no knowledge of the specific contents of the RFP prior to its issuance, and that no agent, representative or employee of the City participated directly in the proposer's proposal preparation.

13. All responses to the RFP must conform to instruction. Failure to include any required signatures, provide the required number of copies, to meet deadlines, answer all questions, follow the requested format, or failure to comply with any other requirements of this RFP may be considered appropriate cause for rejection of the response.

14. The proposer must accept the City's standard agreement language. <u>See Attachment B.</u>

15. Any contract or purchase order resulting from this RFP process will represent the entire agreement between the proposer and the City and will supersede all prior negotiations, representations or agreements, alleged or made, between the parties. The City shall assume no liability for payment of services under the terms of the contract or purchase order until the successful proposer is notified that the contract or purchase order has been accepted and approved by the City. Any contract resulting from this RFP may be amended only by means of a written instrument signed by the proposer and signed by the Mayor.

I. Proposal Requirements & Required Format

One original (clearly identified as such) and ***3*** paper copies of the proposal, as well as a copy of the original proposal in pdf format on a CD or flash drive, must be received at the following address no later than **10:45 AM on *February 1, 2024.*** **Proposals received after that time shall <u>not</u> be considered.**

Mr. Kevin McCaffery
Director of Purchasing
City of Waterbury
235 Grand Street
Room 103
Waterbury, CT 06702

Proposals submitted must be bound, paginated, indexed and numbered consecutively. Proposers shall complete **Attachment C** addressed to Mr. McCaffery, which, in part, includes a statement by the proposer accepting all terms and conditions and requirements contained in the RFP, and which shall be signed by a duly authorized official of the organization submitting the proposal. Proposers shall also, as indicated in Attachment C, identify the name of a contact person, along with their telephone number, email address, if applicable, and address, who can be contacted for the purpose of clarifying the information contained in their response to this RFP. In addition to any other information required in Attachment C, proposers shall provide their firm's authorization and a request to any persons, firm, or corporation to furnish any information requested by the City of Waterbury in verification of the recitals included in its response to this RFP.

Proposals must set forth accurate and complete information for each of the items listed below. At the City's discretion, failure to do so could result in disqualification.

1. Proposer Information: Please provide the following information:

    a. Firm Name
    b. Permanent main office address
    c. Date firm organized.
    d. Legal Form of ownership. If a corporation, indicate where incorporated.
    e. How many years have you been engaged in services you provide under your present name?
    f. Names, titles, reporting relationships, and background and experience of the principal members of your organization, including officers.

2. Experience, Expertise and Capabilities

    a. Philosophy Statement and Business Focus. A statement of the proposer's philosophy and approach in undertaking the services of the nature outlined in the RFP, as well as a description of its primary business focus.
    b. Summary of Relevant Experience. A listing of all projects that the proposer has completed within the last three (3) years must be provided, as well as all projects of a similar nature to those included in the Scope of Services in this RFP. The following information shall be provided for each organization listed under this subsection:
        - Organization name and the name, title, address and telephone number of a responsible contact person.
        - Nature of services provided and dates services started and actually completed. Please indicate, for each assignment, if it was completed within the original contract timeframe and budget. If not, please explain.
        - For each project done for a municipality or other government agency, please indicate the gross cost of the agreement.

    Additionally, please list any contracts or purchase orders in the last three (3) years between the proposer and any agency of the City of Waterbury.

c. Personnel Listing. A complete listing of the staff identified in the work plan by job classification, along with their resumes. Each resume shall include the individual's qualifications and experience in the subject area.
d. Conflict of Interest. Disclose any current (within the last 3 years) business, financial, personal or other types of relationships which may pose a conflict of interest.

3. Statement of Qualifications and Work Plan

a. Qualifications. Please describe your firm's qualifications, experience and capabilities as they pertain to each of the areas of qualifications listed, as well as those of the personnel to be assigned to this project.
b. Work Plan. Please describe the approach that would be generally followed in undertaking the Scope of Services in Section C above.
c. Services Expected of the City. Identify the nature and scope of the services that would be generally required of the City in undertaking these projects.

4. Cost Schedule. Proposals shall include a single price for work to be performed in accordance with this RFP, inclusive of all personnel and non-personnel expenses as per Attachment E. This price should encompass the entire Scope of Services in this RFP. The City reserves the right to negotiate costs, scope of services, and key personnel based on provider proposals. In order for the City to evaluate the proposed cost, proposers must include for each element in the Work Plan outlined in Section I.3.b. above, the staff, hours, hourly rates and the total cost. Include details generally associated with non-personnel costs as an additional cost section.

Since the City may desire to consider the proposer's experience, qualifications, statement of work, and other aspects of the RFP prior to the Cost Proposal, the Cost Proposal shall sealed in a separate envelope marked "Confidential: Cost Proposal".

Note: The City is exempt from the payment of excise, transportation and sales taxes imposed by the Federal Government and/or the State. Such taxes must not be included in prices.

5. Information Regarding: Failure to Complete Work, Default and Litigation.

Please respond to the following questions:
a. Have you ever failed to complete any work awarded to you? If so, where and why?
b. Have you ever defaulted on a contract? If so, where and why?
c. Is there any pending litigation which could affect your organization's ability to perform this agreement? If so, please describe.
d. Has your firm ever had a contract terminated for cause within the past five years? If yes, provide details.
e. Has your firm been named in a lawsuit related to errors and omissions within the past five years? If yes, provide details.

f. During the past seven years, has your firm ever filed for protection under the Federal bankruptcy laws? If yes, provide details.
g. Are there any other factors or information that could affect your firm's ability to provide the services being sought about which the City should be aware?

6. Exceptions and Alternatives. Proposers wishing to take any exceptions to any requirement in the RFP shall state and explain such exceptions. The City may accept proposals which take exception to any requirements in this RFP, or which offer any alternative to a requirement herein, as well as consider such exceptions and alternatives in evaluating responses. Any exception or alternative must be clearly delineated and cannot materially affect the substance of this Request for Proposals.

7. Additional Data. Any additional information which the proposer wishes to bring to the attention of the City that is relevant to this RFP.

J. Evaluation of Proposals; Selection Process

1. Evaluation Criteria

The following criteria are expected to be among those utilized in the selection process. They are presented as a guide for the proposer in understanding the City's requirements and expectations for this project and are not necessarily all inclusive or presented in order of importance.

a. Proposed statement of work. Emphasis will be on grasp of the issues involved, soundness of approach and the quality of the overall proposal.

b. Proposed cost schedule.

c. Experience, expertise, and capabilities of the proposer. Background, qualifications, and previous experience of personnel to be assigned to the project and their demonstrated competence, experience and expertise in the type of work to be performed. The type of experience, expertise, capabilities, and qualifications desired are outlined in Section B. - Qualifications of this RFP. The City may contact one or more of the organization references listed in Section I.2.b. of this RFP as part of assessing the experience, expertise and capabilities of the proposers or those selected as the finalist(s).

d. Time, Project and Cost Schedule**.** Emphasis will be on the proposer's record with completing tasks and producing the necessary products within required time frames and within budget.

2. Selection Process

The City of Waterbury may elect to have the proposals evaluated by a committee as part of making a selection. If deemed necessary, the City reserves the right to arrange for interviews/oral presentations as part of the

selection process, which invitations for interviews may involve a short-listing of the proposals received.

K.Rights Reserved To The City

The City reserves the right to award in part, to reject any and all proposals in whole or in part for misrepresentation or if the proposer is in default of any prior City contract, or if the proposal limits or modifies any of the terms and conditions and/or specifications of the RFP. The City also reserves the right to waive technical defects, irregularities and omissions if, in its judgment, the best interest of the City will be served.

L. Federal, State and Local Employment Requirements

Contractors, if applicable, shall be obligated to fully comply with the attached Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects, i.e. City of Waterbury Ordinances Chapter 34 ("Good Jobs Ordinance"), Federal Davis- Bacon Act, Federal American Recovery and Reinvestment Act of 2009, and the Housing and Urban Development Section 3 Clause, all as further specified in the attached City of Waterbury Contract form. Also attached hereto, is a full copy of the aforesaid City of Waterbury Ordinance, commonly referred to as the "Good Jobs Ordinance".

M. State Set-Aside Requirements

The contractor who is selected to perform this municipal public works project, funded in whole or part by the State, must comply with CONN. GEN. STAT. §§ 4a-60, 4a-60a, 4a-60g, and 46a-68b through 46a-68f, inclusive, as amended by June 2015 Special Session Public Act 15-5. An Affirmative Action Plan must be filed with and approved by the Commission on Human Rights and Opportunities prior to the commencement of construction.

State law requires a minimum of twenty-five (25%) percent of the state-funded portion of the contract for award to subcontractors holding current certification from the Connecticut Department of Administrative Services ("DAS") under the provisions of CONN. GEN. STAT. § 4a-60g, as amended. (25% of the work with DAS certified Small and Minority owned businesses and 25% of that work with DAS certified Minority, Women and/or Disabled owned businesses.) The contractor must demonstrate good faith effort to meet the 25% set-aside goals.

For municipal public works contracts, the contractor must file a written or electronic non-discrimination certification with the Commission on Human Rights and Opportunities. Forms can be found at http://www.ct.gov/opm/cwp/view.asp?a=2982&q=390928&opmNav_GID=1806.

N. State DAS Requirements for Construction Projects

If applicable, Proposers shall submit with their Proposals their DAS Contractor Prequalification Certificate along with a current Updated Bid/Proposal Statement. In addition, any named Subcontractor whose subcontract value is equal to or greater than

$500,000 shall hold a current DAS Contractor Prequalification Certificate in the closest applicable Classification of the work that the Subcontractor will complete in the contract. The proposer must submit with their proposal, all applicable Subcontractor DAS Prequalification certificates. Any Proposal submitted without a copy of the DAS Prequalification Certificate and an Updated Bid/Proposal Statement for the proposal and DAS Prequalification Certificates for Subcontractors whose subcontract value is equal to or greater than $500,000 shall be invalid.

The Successful Proposer and each of its Subcontractors having subcontracts in value equal to or greater than $500,000 shall maintain and keep current their respective DAS Contractor Prequalification Certificates at all times during the term of the Contract and any warranty period set forth in the Contract Documents.

O. CT-DAS Contractor Prequalification Requirements

i. This project is funded in whole or part by State funds, accordingly, any Proposal with a Total Price Proposal of over Five Hundred Thousand Dollars ($500,000.00) shall include as part of its Proposal submission an Update (Bid) Statement and a current “DAS Contractor Prequalification Certificate” (not a predetermination letter) from the DAS. Anticipated Prequalification classification are as follows:

GENERAL BUILDING CONSTRUCTION (GROUP A)
GENERAL BUILDING CONSTRUCTION (GROUP B)
GENERAL BUILDING CONSTRUCTION (GROUP C)
GENERAL TRADES
HISTORICAL BUILDING RESTORATION (MASONRY, ROOFING)
MASONRY
METAL SIDING
ROOFING
WATERPROOFING

ii. Further, any named Subcontractor whose subcontract value is equal to or greater than $500,000 shall hold a current DAS Contractor Prequalification Certificate in the closest applicable Classification of the work that the Subcontractor will complete in the contract and Proposer shall submit as part of its Proposal submission all applicable Subcontractor DAS Prequalification certificates and Update (Bid) Statements.

iii. The Successful Proposer and each of its Subcontractors having subcontracts in value equal to or greater than $500,000 shall maintain and keep current their respective DAS Contractor Prequalification Certificates at all times during the term of the Contract and any warranty period set forth in the Contract Documents.

P. Bid Bond

Each Proposal submitted shall be accompanied by a Proposal Security (a Certified Check or Bid Bond) in the amount of **ten (10) percent** of the Total Proposal Price.

Q. Performance/Payment Bonds

The Proposer to whom a contract is offered, must furnish to the City, if that contract has a total cost greater than $50,000.00, a 100 percent Performance Bond with a surety, and in a form, acceptable to the City. In the City's sole discretion, it may also require a 100 percent Payment Bond and/or other additional security with a surety, and in a form, acceptable to the City.

Attachment A Documents

- ANNUAL STATEMENT OF FINANCIAL INTEREST
- DEBARMENT CERTIFICATION
- CITY OF WATERBURY DISCLOSURE OF OUTSTANDING OBLIGATIONS
- CORPORATE RESOLUTION
- LLC RESOLUTION

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 202__)
Persons or Entities Conducting Business with the City

I. Outstanding Purchase Orders of Contracts with the City

A. Contracts

No Contracts with the City ☐

(Service or Commodity Covered by Contract)

(Term of Contract)

(Service or Commodity Covered by Contract)

(Term of Contract)

(Service or Commodity Covered by Contract)

(Term of Contract)

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 202__)
Persons or Entities Conducting Business with the City

B. Purchase Order(s).

No Purchase Order(s) with the City ☐

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 202__)
Persons or Entities Conducting Business with the City

II. Financial Interest Disclosure

(Public Officials, Employees or Board and Commission Members with interest in Person or Entity Conducting Business with the City)

No Officials, Employees or Board and Commission Members with Financial Interest ☐

(Name of Official)

(Position with City)

(Nature of Business Interest)
(e.g. Owner, Director etc…)

Interest Held By:
Self ☐ Spouse ☐ Joint ☐ Child ☐

(Name of Official)

(Position with City)

(Nature of Business Interest)
(e.g. Owner, Director etc…)

Interest Held By:
Self ☐ Spouse ☐ Joint ☐ Child ☐

1. I certify that this Annual Statement of Financial Interests is a complete and accurate statement of those matter required to be disclosed by me pursuant to §39.061 of the Code of Ordinances.

2. I understand that if I fail to file an Annual Statement (or amendment thereto) or an inaccurate Statement I will be in violation with Chapter 39 of the Code of Ordinance and, thereby, subject to the remedies set forth in §§38.71 and 39.101 of said Code.

3. I understand that I must file with the City Clerk, within fifteen (15) days following any reportable occurrence, any amendments to the Annual Statement.

I have read and agree to the above certification.

_____
(Name of Company, if applicable)

_____ _____
Signature of Individual (or Authorized Signatory) Date

_____
Print or Type Name and Title (if applicable)

DELIVERED | By Mail ☐ Hand-Delivered ☐

City of Waterbury Certification
Regarding
Debarment, Suspension, Ineligibility and Exclusion

If the transaction is Federally funded, in whole or in part (including pass through grants to state and/or municipal government), this certification is required by the regulations implementing one or more Presidential Executive Orders. If this transaction is funded by the State of Connecticut, in whole or in part, this certification is required in accordance with one or more State of Connecticut general statutes.

1. By signing and submitting the attached proposal and/or this document, the prospective lower tier participant, vendor, or contractor is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant, vendor, or contractor knowingly rendered an erroneous certification, in addition to other remedies available to the Federal , State, or City government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant, vendor or contractor shall provide immediate written notice to the person to which the attached proposal and/or this document is submitted if at any time the prospective lower tier participant, vendor or contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction", "principal", "proposal", and "voluntarily excluded", as used herein, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549 and/or State of Connecticut statutes and regulations. You may contact the person to which this proposal and/or this document is submitted for assistance in obtaining a copy of the foregoing.
5. The prospective lower tier participant, vendor or contractor agrees by submitting the attached proposal and/or this document that, should the proposed covered transaction be entered into, it shall not knowingly enter into any covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant, vendor or contractor further agrees by submitting the attached proposal and/or this document that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion-Lower Tier Covered Transactions", without modification, in all covered transaction and in all solicitations for covered transactions.
7. A participant in a covered transaction may rely upon the certification of a prospective participant in a covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may but is not required to, check the Non-procurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required herein. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 herein, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal, State or Municipal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification

(1) The prospective recipient of monies hereby certifies, by submission of its attached proposal and/or by execution of this document, that neither it nor its principles are presently debarred, suspended, proposed for debarment, declared ineligible, disqualified, or voluntarily excluded from bidding or participation in the proposed transaction by any Federal, State, or Municipal department or agency or by the statutes, regulations or ordinances of the foregoing departments and agencies.

(2) Where the prospective recipient of monies is unable to certify to any of the statements in this certification, such prospective participant shall attach a written explanation hereto.

Full Legal Name and address of Recipient, Vendor, or Contractor: _____
_____
_____.

Print Name and Title of Authorized Representative: _____

Signature of Authorized Representative: _____

Date: _____

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

For the purposes of this Disclosure of Outstanding Financial Obligations, the following definitions apply:

(a) "Contract" means any Public Contract as defined below.

(b) "Person" means one (1) or more individuals, partnerships, corporations, associations, or joint ventures.

(c) "Public Contract" means any agreement or formal commitment entered into by the city to expend funds in return for work, labor, services, supplies, equipment, materials or any combination of the foregoing, or any lease, lease by way of concession, concession agreement, permit, or per agreement whereby the city leases, grants or demises property belonging to the city, or otherwise grants a right of privilege to occupy or to use said property of the city.

(d) "City" means any official agency, board, authority, department office, or other subdivision of the City of Waterbury.

State of_____

SS.:_____

County of_____

_____, being first duly sworn, deposes and says that:

1. I am the ***owner, partner, officer, representative, agent or*** _____ of _____(Contractor's Name), the Contractor that has submitted the attached agreement.

2. I am fully informed respecting the preparation and contents of the attached Agreement and of all pertinent circumstances respecting such Agreement;

3. That as a person desiring to contract with the City (check all that apply):

____ The Contractor and each owner, partner, officer, representative, agent or affiliate of the Contractor has filed a list of taxable personal property with the City of Waterbury for the most recent grand list, as required by Conn. Gen. Stat. §12-42.

____ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor are required to file a list of taxable personal property with the City of Waterbury for the most recent grand list, as required by Conn. Gen. Stat. §12-42.

____ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor either directly or through a lease agreement, owes back taxes to the City of Waterbury

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

____ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor either directly or through a lease agreement, has any other outstanding obligations to the City of Waterbury

4. The following list is a list of the names of all persons affiliated with the business of the Contractor, if none state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

Name	Title	Affiliated Company (if none state NONE)	Service or Material	DOB
1				
2				
3				
4				

5. That as a person desiring to contract with the City:

(a) The Contractor or an owner, partner, officer, representative, agent or affiliate of the Contractor provides, or has provided, services or materials to the City within one (1) year prior to the date of this disclosure, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

Name	Title	Affiliated Company (if none state NONE)	Service or Material	DOB
1				
2				
3				
4				

(b) The Contractor possesses an ownership interest in the following business organizations, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized) :

Organization Name	Address	Type of Ownership
1		
2		
3		
4		

(c) The following persons possess an ownership interest in the Contractor. If the Contractor is a corporation, list all of the officers of the corporation and the names of each stockholder whose shares exceed twenty-five

(25) percent of the outstanding stock, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

Name	Title	DOB	Stock %
1			
2			
3			
4			

(d) Of the following of the affiliates, individuals or business entities identified in this affidavit, list each that owns, owned, or within one (1) year prior to the date of this disclosure has owned, taxable property situated in the City of Waterbury, if none state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

Name	Title	Affiliated Company (if none state NONE)	Address	DOB
1				
2				
3				
4				

(e) If the Contractor conducts business under a trade name, the following additional information is required: the place where such entity is incorporated or is registered to conduct such business; and the address of its principal place of business, if none, state none:

TRADE NAME	PLACE OF INCORPORATION/REGISTRY	PRINCIPAL PLACE OF BUSINESS
1		
2		
3		
4		

I hereby certify that the statements set forth above are true and complete, and I understand that any incorrect information or omission of information from this affidavit may result in the immediate termination of the Contractor's agreement with the City of Waterbury.

For Partnership/Sole Proprietor

In presence of:

_____ _____

Witness Name of Partnership/Business

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

By: _____
Name of General Partner/ Sole Proprietor

_____
Address of Business

State of _____)

) SS

County of _____)

_____ being duly sworn,

Deposes and says that he/she is _____ of _____ and that he/she answers to the foregoing questions and all statements therein are true and correct.

Subscribed and sworn to before me this _____ day of _____ 202_.

_____
(Notary Public)

My Commission Expires: _____

For Corporation

_____ _____
Witness Name of Corporate Signatory

_____
Address of Business

Affix
Corporate
Seal

By:_____
Name of Authorized Corporate Officer

Its:_____
Title

CITY OF WATERBURY

DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

State of _____)

) SS

County of _____)

_____ being duly sworn,

deposes and says that he/she is _____ of _____ and that he/she answers to the foregoing questions and all statements therein are true and correct.

Subscribed and sworn to before me this _____ day of _____ 202__.

_____
(Notary Public)

My Commission Expires: _____

CORPORATE RESOLUTION

I, _____, hereby certify that I am the duly elected and acting Secretary of _____, a corporation organized and existing under the laws of the State of _____, do hereby certify that the following facts are true and were taken from the records of said corporation.

The following resolution was adopted at a meeting of the corporation duly held on the _____ day of _____, _____.

"It is hereby resolved that _____ is authorized to make, execute and approve, on behalf of this corporation, any and all contracts or amendments thereof".

And I do further certify that the above resolution has not been in any way altered, amended, repealed and is now in full force and effect.

IN WITNESS WHEREOF, I hereunto set my hand and affix the corporate seal of said _____ corporation this _____ day of _____, 202__.

_____
Secretary

TO BE SIGNED ON DATE OF CONTRACT EXECUTION

LIMITED LIABILTY COMPANY RESOLUTION

I, _____, hereby certify that I am the duly authorized and acting Member / Manager (circle one) of_____, a limited liability company organized and existing under the laws of the State of_____, do hereby certify that the following facts are true and were taken from the records of said LLC.

The following resolution was adopted at a meeting of the LLC duly held on the _____ day of _____, _____.

“It is hereby resolved that _____is authorized to make, execute and approve, on behalf of this LLC, any and all contracts or amendments thereof”.

And I do further certify that the above resolution has not been in any way altered, amended, repealed and is now in full force and effect.

IN WITNESS WHEREOF, I hereunto set my hand and affix the company seal of said _____ , LLC this _____ day of _____, 202__.

_____
Manager/Member

.

TO BE SIGNED ON DATE OF CONTRACT EXECUTION

Attachment B Document

- SAMPLE CONTRACT

CONSTRUCTION CONTRACT
RFP Number 7930
for
Kennedy High School Roof Replacement
between
City of Waterbury
and

_____

THIS CONTRACT, effective on the date signed by the Mayor, is by and between the CITY OF WATERBURY, City Hall, 235 Grand Street, Waterbury, Connecticut (the "City") and _____, located at _____, a Connecticut Domestic Limited Liability Company (the "Contractor").

WHEREAS, the City's purchases under the Agreement will be funded by monies received by the City through the State of Connecticut, Department of Administrative Services (DAS), Office of School Construction Grants and Review (OSCG&R); and

WHEREAS, the Contractor submitted a bid to the City in response to **Request for Proposal ("RFP") Number 7930** for roof replacement and associated work at Kennedy High School using existing architectural designs; and,

WHEREAS, the City accepted the Contractor's bid for **RFP Number 7930;** and

WHEREAS, the City desires to obtain the Contractor's services for roof replacement and associated work at Kennedy High School using existing architectural designs pursuant to the terms set forth in this Contract (the "Project").

NOW THEREFORE, THE PARTIES AGREE AND COVENANT AS FOLLOWS:

1. Scope of Services. The Contractor shall furnish all of the labor, services, equipment, materials, supplies, transportation, and incidentals necessary to complete the Project as specified in this agreement (also referred to herein as "Contract") and such shall be completed in a satisfactory manner, as reasonably determined by the City. All labor, services, equipment, materials, supplies, transportation, and incidentals shall comply with **(i)** any and all applicable local, state and federal laws, statutes, ordinances, rules and regulations, including without limitation all notice requirements thereunder, and **(ii)** generally accepted professional standards.

1.1. The Project consists of roof replacement and associated work at Kennedy High School using existing architectural designs as detailed and described in the Bid Documents in **Attachment A** and which are hereby made material provisions of this Contract. **Attachment A** shall consist of the following, which are attached hereto, are

acknowledged by the Contractor as having been received, or otherwise hereby incorporated by reference as noted below, and all are made a part hereof:

- Project plans, specifications, drawings, supplementary conditions
- Bid Forms, including the City's Bid documents and the Contractor's responses
- any and all amendment(s) and Change Orders, issued by the City after execution of Contract (incorporated by reference)
- Non-Collusion Affidavit; Debarment Certificate
- Performance Bond and Payment Bond
- Certificates of Insurance
- All applicable Federal, State and local statutes, regulations charter and ordinances (incorporated by reference)
- All permits and licenses (incorporated by reference)

1.2. The entirety of **Attachment A** plus this executed instrument are together deemed the Contract Documents (hereinafter collectively referred to as "Contract Documents"). The City's record copy of the Contract Documents shall control and shall be effective and binding on the Contractor. In the event that any provision in the Contract Documents conflict with any other provision therein, the provision in the component part of the Contract Document first enumerated below shall govern over any other component part which follows it numerically.

i. Contract Amendment(s) and Change Orders
ii. Contract
iii. Contractor's Bid Form
iv. Federal, State, and local laws, regulations, charter and ordinances
v. Technical Specifications
vi. Drawings

2. Representations Regarding Qualification and Accreditation. The Contractor represents that its employees are licensed to perform the scope of work set forth in this Contract. The Contractor further represents that its employees have the requisite skill, expertise and knowledge necessary to perform the scope of work required under the terms of this Contract, including any supplementary work and the City relies upon Contractor's representations.

2.1. Representations regarding Personnel. The Contractor represents that it has, or will secure at its own expense, all personnel required to perform the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the City, unless use of City employees or of personnel having a contractual relationship with the City is approved in writing. As set forth above, all the services required hereunder shall be performed by the Contractor or under its supervision and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under state or local law to perform such services.

2.2. Representations regarding Qualifications. The Contractor hereby represents that, to the extent required by Federal, State and Local statutes, regulations, codes, ordinances, and policies, that the Consultant and/or its employees be licensed, certified, registered, or otherwise qualified, the Consultant and all employees providing services under this Contract, are in full compliance with those statutes, regulations and ordinances. Upon City request, the Consultant shall provide to the City a copy of the Consultant's licenses, certifications, registrations, etc.

3. Responsibilities of the Contractor. The Contractor agrees to properly implement the services required in the manner herein provided. The Contractor shall, in addition to any other responsibilities set forth in this Contract and the Schedules and Attachments hereto, perform the following coincident with the performance of this Contract:

3.1. Due Diligence Obligation. The Contractor acknowledges its responsibilities to examine and to be thoroughly familiar with the City's bid document, including, but not limited to the plans, specifications, drawings and any addenda thereto. The Contractor hereby warrants and represents that prior to the submission of its proposal during the bid process it reviewed or was afforded opportunity, by the City, to review all physical items, facilities, services and functions essential to the satisfactory performance of the services required ("Due Diligence") and thereby certifies that all such items facilities, services and functions are included in this Contract and thereby warrants that:

3.1.1 it conducted or had opportunity to conduct all due diligence prior to the submission of its bid and, accordingly, any additional costs, services or products resulting from the failure of the Contractor to complete Due Diligence prior to submission of its bid proposal shall be borne by the Contractor. Furthermore, the Contractor had the opportunity during the bid process to ask questions it saw fit and to review the responses from the City;

3.1.2 its failure or omission to make investigation and verification of data shall, in no way, be cause for future claim of ignorance of such data or conditions nor shall such failure to investigate and verify be the basis for any claim whatsoever, monetary or otherwise;

3.1.3 it is solely responsible for resolving any issues resulting from its failure to conduct due diligence and it shall assume any and all resulting costs it incurs during the Project;

3.1.4 it was responsible for specifying any changes and disclosing any associated new costs prior to submittal of its bid. In the event the Contractor failed to disclose any such new cost prior to the submittal of its bid, the Contractor hereby covenants that it shall remain solely responsible for, and shall absorb, those non-disclosed costs;

3.1.5 it has familiarized itself with the nature and extent of the Contract Documents, Project, locality, and with all local conditions and Federal, State

and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Project;

3.1.6 it has given the City written notice of any conflict, error or discrepancy that the Contractor discovered in the City's bid documents and other documents for **RFP Number 7930** (collectively "Bid Documents");

3.1.7. it agrees that the Bid Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Project;

3.1.8. it has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Scope of Services which were utilized in the preparation of the plans and specifications;

3.1.9 it has made or caused to be made examinations, investigations, measurements and tests and studies of any applicable reports and related data as it deems necessary for ensuring performance of the Scope of Services at the Contract Price within the Contract Time and in accordance with the other terms and conditions of the Contracts; and certifies no additional examinations, investigations, tests, reports or similar data are or will be required by Contractor for such purposes; and

3.1.10 The Contractor shall not take advantage of any obvious error or apparent discrepancy in the Contract. Notice of any error or discrepancy discovered shall be given immediately in writing to the City, who shall make such corrections and interpretations as it may deem necessary for the completion of the Project in a satisfactory and acceptable manner.

3.2. Safety. Contractor shall perform all work in a safe manner in full compliance with local, state and federal health and safety regulations. Contractor shall immediately correct any dangerous condition caused by or resulting from its work. If it fails to correct, or to act diligently to correct, any condition which the City reasonably believes to be a hazard to persons or property, then immediately upon oral or written notice to any supervisory or similar personnel of Contractor, City may, but shall not be required to, correct same at Contractor's expense. City shall confirm to Contractor in writing any oral notice given within five (5) business days thereafter.

3.3. Storage. In the event the Project site has insufficient, inadequate, and/or improper storage space, it shall be the responsibility of the Contractor to secure, provide and maintain at the Contractor's sole cost and expense **(i)** adequate off-site storage space for equipment, materials, incidentals, etc., and **(ii)** all associated delivery and transportation services. In either event, the Contractor shall assume full responsibility for equipment, materials, incidentals, etc. until both title and risk of loss pass to the City pursuant to Section 8 of this Contract.

3.4. Working Hours. To the extent the Contractor is required to be on City property to render the Contractor's services hereunder, the Contractor shall coordinate its schedule so that work on and at the Project site is performed during the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturday, Sunday and legal holidays unless more exactly specified elsewhere in this Contract or **Attachment A** or unless prior written permission is obtained from the City to work during other times. This provision shall not excuse the Contractor from timely performance under the Contract.

3.5. Cleaning Up. The Contractor shall at all times keep the Project site free from accumulation of waste materials or rubbish caused by Contractor's employees or subcontractors, and at the completion of the work shall remove all rubbish from and about the Project and all tools, scaffolding and surplus materials and shall leave the Project site "broom clean" or its equivalent, unless more exactly specified. In case of dispute, the City may remove the rubbish and charge the cost to the Contractor.

3.6. Publicity. Contractor agrees not to deliberately disclose the fact that the City has entered into or terminated this Contract or disclose any of the terms of the Contract or use the City's name in connection with any publicity, unless the City gives prior written consent to such use of the City's name in each instance.

3.7. Standard of Performance. All Contractor labor, materials, supplies, components, equipment, reports, plans, specifications, drawings, deliverables, incidentals, etc., required to be furnished or delivered under this Contract shall conform in all respects with the requirements set forth in this Contract and shall meet or exceed those standards generally recognized in the Contractor's craft and trade in the State of Connecticut. City specified manufacturer and/or brand name substitution desired by the Contractor shall be made only with the prior written consent of an authorized representative of the City's Using Agency.

> **3.7.1** In carrying out the Project, the Contractor must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor, nor with the normal routine of the institution or agency operating at the Project site.

3.8. Contractor's Employees. The Contractor shall at all times enforce strict discipline and good order among its employees, and shall not employ on the work any unfit person or anyone not skilled in the work assigned. The Contractor shall not, without the prior written approval of the City's Using Agency, substitute, terminate, replace or otherwise remove any Contractor employee expressly named, identified or required in this Contract.

3.9. Subsurface/Unknown Site Conditions. If Project site conditions are encountered which are **(i)** subsurface or otherwise concealed physical conditions or other conditions which differ materially from those indicated in the Contract

Documents, or **(ii)** unknown conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent or common in construction activities of the character provided for in this Contract, then prompt notice by the observing party shall be given to the other party to this Contract before Project site conditions may be disturbed. The Contractor shall thereafter wait for written instructions from the City before proceeding with regard to such conditions.

3.10. Surveys. All surveys required under this Contract shall be performed by a State of Connecticut duly licensed land surveyor. Unless expressly stated to the contrary in Section 1 of this Contract and **Attachment A**, the Contractor shall perform all layout work, all field measurements and all construction staking required, necessary or prudent for the satisfactory prosecution of the Contractor's obligations under this Contract.

3.11. Permits and Licenses. Unless expressly stated to the contrary in Section 1 of this Contract and **Attachment A**, the Contractor shall secure and obtain all permits and all licenses required, or necessary, or prudent for the performance of the Contractor's obligations under this Contract, and for the City's occupancy, use, and operation of the Project.

3.12. Manufacturer's Directions. Where it is required in this Contract that materials, products, processes, equipment or the like be installed or applied in accord with manufacturer's directions, specifications or instructions, it shall be construed to mean that the said application or installation by the Contractor shall be in strict accord with printed instructions furnished by the manufacturer of the material concerned for use under conditions similar to those at the Project site. One (1) copy of such instructions shall be furnished to the City.

3.13. Review by the City. The Contractor shall permit the City and the City's duly authorized representatives and agents to review, at any time, all work performed under the terms of this Contract at any stage of the Project.

3.14. Records Maintenance. The Contractor shall maintain or cause to be maintained all records, books or other documents relative to charges, costs, expenses, fees, alleged breaches of the Contract, settlement of claims or any other matter pertaining to the Contractor's demand for payment.

4. Responsibilities of the City and City Reservation of Rights. Upon the City's receipt of Contractor's written request for specific information, the City will provide the Contractor with existing documents, data and other materials the City agrees are necessary and appropriate to the services to be performed by the Contractor hereunder and the City will endeavor to secure, where feasible and where the City agrees it is necessary and appropriate, materials or information from other sources requested by the Contractor for the purpose of carrying out the services under this Contract.

4.1. The City may, in its sole discretion, designate person(s) to act as the City's Project Engineer(s) and/or Manager(s) and the City may, in its sole discretion, define such person(s) authority and responsibilities.

4.2. The City reserves the right to **(i)** perform work related or unrelated to the Project with the City's own forces adjoining, adjacent to, or in the vicinity of, the Project site and/or **(ii)** let separate contracts related or unrelated to the Project for work and services adjoining, adjacent to, or in the vicinity of, the Project site. In such event, the Contractor shall afford all such parties reasonable opportunity for storage of materials and equipment and for the uninterrupted provision and delivery of such parties' work and/or services. The Contractor shall cooperate with such parties and in the case of a dispute, the decision of the City shall be complied with by all.

5. Contract Time. Contract Time. The Contractor shall Substantially Complete all work and services required under this Contract within **seventy five (75) consecutive calendar days** of the City's written Notice to Proceed and shall reach Final Completion within **one hundred twenty (120) consecutive calendar days** of the City's written Notice to Proceed ("Contract Time").

5.1. Within one (1) week of the City's issuance of its written notice to proceed, and prior to the commencement of any work on the Project site, the Contractor shall submit for the City's written approval a construction progress schedule. On a monthly basis, the Contractor shall deliver to the City a written status report setting forth an analysis and critique of the Contractor's compliance with said schedule.

5.2. Delay Damages

5.2.1 Time is and shall be of the essence for all Project Phase Completion Dates, Milestones, Substantial and Final Completion Date. The Contractor further agrees that the Project shall be prosecuted regularly, diligently and uninterruptedly and at such rate of progress as will insure full completion thereof within the Contract time stated above. It is expressly understood and agreed, by and between the Contractor and City, that the Phase Completion Dates, Milestones, Substantial and Final Completion Date are reasonable for the completion of the Project.

5.2.1.1 The Contractor shall pay to the City the sum of Five Hundred Dollars ($500.00) per calendar day for each and every calendar day for which the Contractor is in default in completing the work beyond the Final Completion Date, Substantial Completion Date, Milestones and Phase Completion Dates, as set forth in Section 5, or the actual damages incurred by the City caused by the delay. The preceding sum is hereby agreed upon not as a penalty, but as delay damages for the delay that the City shall suffer due to such default.

5.2.1.2 The City shall have the right to recover all damages pursuant to any remedy at law or equity including but not limited to deducting the amount of any such damages from any monies due the Contractor under this Contract. The Contractor understands that if the entire Work or of any portion of the Work that the City has agreed to accept separately, if any, is not attained by the applicable completion dates as set forth in the entire Section 5, the City will suffer damages, which are difficult to specify accurately and ascertain. Delay damages based upon delay shall be assessed to compensate the City for all actual loss sustained by the delay, including, but not limited to, loss of use, increased cost of material or services to complete the project, loss of State funding, all other another actual expense, and all other damages allowed by law, including attorney's fees.

5.3 No Damage for Delay

In no event shall the Contractor be entitled to any compensation or recovery of any damages in connection with any Delay, including, without limitation, consequential damages, lost opportunity damages, attorney's fees or other, similar remuneration. The City's exercise of any of its rights or remedies under the Contract Documents, including without limitation, ordering changes in the Work, or directing suspension, rescheduling or correction of the Work, regardless of the extent or frequency of the City's exercise of these rights has been contemplated by the parties and shall not be construed as an exception.

6. Compensation. The City shall compensate the Contractor for satisfactory provision of all of the goods and services set forth in this Contract as follows in this Section 6. No claims for additional compensation will be considered for conditions made known to the Contractor prior to bidding. No claims for additional compensation will be considered on account of failure of the Contractor to completely inform itself as required herein above.

6.1. Fee Schedule. Subject to retainage, limitations, etc. set forth below in this Section 6, the fee payable to the Contractor shall not exceed _____ (hereafter referred to as "Total Compensation") with the basis for payment being Contractor's Bid set forth in **Attachment A's** "Contractor's Bid, dated _____", which is summarized below:

[insert compensation terms]

6.2. Retainage. At the City's sole discretion, it hereby reserves the right to withhold as retainage 5% percent of any payment (or monetary sum otherwise required by law) owed to the Contractor to be withheld from payments to the Contractor otherwise payable to the Contractor until such time as the Contractor's work and services to be

provided under this Contact are fully completed and accepted in writing by the City. The retainage does not does not include additional sums that the City may withhold due to the Contractor's failure to comply with provisions of this Contract.

6.3. Limitation of Payment. Compensation to the Contractor is limited to those fees set forth in Section 6.1. of this Contract and is further limited to work **(i)** performed in fact, **(ii)** conforming with this Contract, and **(iii)** accepted in writing by a duly authorized City employee. Such compensation shall be paid by the City upon its review and approval of the Contractor's invoices for payment and review of the Contractor's work.

6.3.1 Funding. In the event this Contract is funded, in whole or in part, by Federal and/or State monies, grants, loans, etc, all City payment(s) shall fully comply with all relevant Federal and State statutes and regulations. In the event this Contract is 100% funded by Federal and/or State monies, grants, loans, etc., the aggregate sum of all City payments shall not exceed the aggregate sum of such funding.

This Contract pertains to a project funded in whole or in part, by monies received by the City through the State of Connecticut, Department of Administrative Services (DAS), Office of School Construction Grants and Review (OSCG&R).

Contractor is required to comply with all applicable Federal statutes, executive orders, regulations, rules and interpretive guidance issued by the U.S. Treasury Department, U.S. Office of Management and Budget or any other Federal agency.

This Contract is subject to 2 C.F.R. Part 180 OMB Guidelines to Agencies on Government Debarment and Suspension and the U.S. Treasury's implementing regulations set forth at 31 C.F.R. Part 19 Government Debarment and Suspension.

A listing of Federal Requirements and Representations that Contractor must comply with are set forth in Attachment A to this Contract.

6.3.2 The Contractor and its affiliates are hereby provided with notice that the City reserves the right, in the City's sole discretion, to offset, withhold, or otherwise reduce City payment(s) to the Contractor, in an amount equaling the sum or sums of money the Contractor and/or its affiliates is/are, or become delinquent or in arrears on, regarding the Vendor's and/or its affiliates real and personal property taxes and other payment obligations to the City.

6.4. Bid Costs. All costs of the Contractor in preparing its bid for **RFP Number 7930** shall be solely borne by the Contractor and are not included in the compensation to be paid by the City to the Contractor under this Contract or any other agreement.

6.5. Payment for Services, Materials, Appliances, Employees. The Contractor shall be responsible to the City for the suitability of services, materials and equipment furnished to comply fully with the requirements set forth in this Contract. The Contractor shall promptly pay all employees as their pay falls due, shall pay promptly as they fall due all bills for subcontractors, materials, supplies and services going into the work, and all bills for insurance, bonds, Worker's Compensation coverage, Federal and State Unemployment Compensation, and Social Security charges applicable to this Project. Before final City payment is made, the Contractor shall furnish to the City a sworn, notarized, affidavit stating that all of the foregoing payment obligations have been fully completed.

6.6. Liens. Neither the City's final payment nor any part of the retained percentage, if any, shall become due until the Contractor, if required by the City, shall deliver to the City a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof, and, if required, in either case, an affidavit that so far as the Contractor has knowledge or information, the releases and receipts include all the labor and material for which a lien could be filed; but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the City, to indemnify it against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the City all moneys that the City may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

6.7. Contractor's Certificate of Completion. Upon the Contractor's **(i)** completion of all Project milestones, and **(ii)** Substantial Completion of the Project, and **(iii)** Final Completion of the Project, the Contractor shall, in each instance, file with the City a written, notarized affidavit setting forth the amount of Project work performed. The City reserves the right to verify or challenge by any reasonable means the accuracy of said affidavit.

6.8. Final Payment. All prior estimates and City payments, including those relating to extra or additional work, retainage(s), and holdback(s), shall be subject to correction by this final payment which is throughout this Contract called "Final Payment". No payment, final or partial, shall act as a release to the Contractor or its surety from any Contractor obligation(s) under this Contract.

6.9. Clean Water Fund Project Requirements. In the event this Contract is funded in whole or in part, is reliant upon, or falls within the jurisdiction of the Clean Water Fund and its statutes, regulations and rules, the Contractor shall:

6.9.1 submit Applications for Payment in accordance with the following:

The City must receive the Contractor's Application for Payment by the City's or its designee's, review and recommendation for payment, by the fifteenth calendar day of the month to receive payment within the next 50 days. If not received by the fifteenth calendar day of the month, payment can not be made until 50 days after the fifteenth calendar day of the subsequent month. The Contractor shall provide at the City's request, reasonable documentation to substantiate Contractor's Application for Payment.

6.9.2 Progress and Final Payments

The City will make progress payments on account of the Contract Price on the basis of the Contractor's Applications for Payment, monthly during construction as provided below. All progress payments will be on the basis of the progress of the Scope of Services as determined by the City, according to the schedule of values provided for in the Contract Documents, and approved by the City. Prior to Substantial Completion, progress payments will be limited to an amount equal to 95 percent of the value of the Scope of Services completed. Upon Substantial Completion, the City will pay the amount as specified in the Contract Documents.

7. Warranty of the Contractor. The Contractor warrants to the City that all materials, supplies, components, equipment, etc. furnished under this Contract shall be new and of good quality, except as otherwise expressly stated and permitted by the City elsewhere in this Contract. The Contractor warrants that none of its work shall be defective. The Contractor shall be liable to repair and install and/or replace without charge any service, component, equipment or part thereof which is defective or does not conform with this Contract within the greater of **(i)** 730 calendar days after the City delivers its written notice of its acceptance of the Project and statement therein establishing the final completion date, or **(ii)** that time period or date expressly stated elsewhere in this Contract or **Attachment A**. The City shall also receive the full benefit of the Manufacturing Warranty included in Attachment A hereto.

7.1. The Contractor further warrants that all materials, supplies, services, components, equipment, reports, plans, drawings, deliverables, incidentals, etc., shall be free from any and all defects caused by faulty design, faulty material or poor workmanship. The Contractor shall supply to the City copies of any written manufacturer's warranties and guarantees. The Contractor's foregoing warranty obligations are in addition to, and not a limitation of, all manufacturer's warranties and guarantees, and any other remedy stated in this contract or otherwise available to the City under applicable law.

8. Passing of Title and Risk of Loss.

8.1. City beneficial use of Project equipment, materials, site-work, etc. prior to the Contractor's final completion of the Project or prior to the City's final payment for the Project shall neither act to vest title in the City nor act to transfer risk of loss from the

Contractor to the City. Said title and risk shall pass to the City upon the City's final payment for the Project.

8.2. Contractor and its insurer shall assume the risks of loss or damage to the equipment up to and including the date title passes, except that City shall be responsible for loss or damage caused by City's gross negligence.

8.3. After Project equipment, materials, etc. are delivered to the Project work-site and become operable or functional, the Contractor shall not thereafter remove any such equipment, materials, etc. from the Project work-site without securing the prior written consent of an authorized City Using Agency employee.

9. Indemnification.

9.1. The Contractor shall indemnify, defend, and hold harmless the City, City's Boards, and Board of Education, commissions, agents, officials and employees from and against all claims, suits, damages, losses, judgments, costs and expenses including attorney's fees arising out of or resulting from the delivery of the labor, services, equipment, materials, reports, plans, specifications, design, drawings, deliverables, incidentals, etc. provided that any such claims, suits, damages, losses, judgments, costs or expenses **(i)** are attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including the loss of use resulting there from, **(ii)** are alleged to be caused in whole or in part by any willful, intentional, negligent, or reckless act or omission of the Contractor, its employees, any subcontractor or consultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder; **(iii)** enforcement action or any claim for breach of the Contractor 's duties hereunder or **(iv)** claim for intangible loss(es) including but not limited to business losses, lost profits or revenue, regardless of whether or not it is caused in part by a party indemnified hereunder.

9.2. In any and all claims against the City, Board of Education or any of City's boards, agents, employees or officers by the Contractor or any employee of the Contractor , any subcontractor or consultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 9 above, shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under Worker's Compensation Acts, disability benefit acts or other employee benefit acts.

9**.3**. The Contractor understands and agrees that any insurance required by this Contract, or otherwise provided by the Contractor , shall in no way limit the responsibility to indemnify, defend, keep and hold harmless the City, the Board of Education, any of City's boards, agents, employees as provided in this Contract.

9.4. The Contractor expressly understands and agrees that any performance bond or insurance protection required by this Contract, or otherwise provided by the Contractor, shall in no way limit the responsibility to indemnify, keep and save harmless and defend the City and the City's boards, agents, employees or officers as provided herein.

9.5. Royalties and Patents. The Contractor shall, for all time, secure to the City the free and undisputed right to the use of any and all patented articles and methods used in the work and shall defend at Contractor's own expense any and all suits for infringement or alleged infringement of such patents, and in the event of adverse award under patent suits, the Contractor shall pay such awards and hold the City harmless in connection with any patent suits that may arise as a result of installations made by the Contractor and as to any award made thereunder.

9.6. In the event this Contract and/or the Contractor's, or its subcontractor, work and services provisioned hereunder is/are subject to the provisions of any Federal or State statute or regulations, or the City Charter or City Ordinance, the Contractor shall indemnify, defend and hold harmless the City from any fine, penalty or other amounts imposed on the City under said statutes, regulations, Charter or Ordinances, if caused by Contractor, or its subcontractor, omission or commission.

10. Contract Bonds. The Contractor shall furnish to the City, prior to the execution of this Contract by the City, both a performance bond and a payment bond, each bond written for a penal sum equaling the Section 6 "Total Compensation" amount in a form and with a surety acceptable to the City. The bonds shall continue in effect for the greater of **(i)** the warranty period set forth in Section 7 of this Contract, or **(ii)** 365 calendar days after the Final Completion Date referenced elsewhere in this Contract.

11. Contractor's Insurance.

11.1. The Contractor shall not commence work under this Contract until all insurance required under this Section 11 has been obtained by the Contractor and such insurance has been approved by the City. The Contractor shall not allow any subcontractor to commence work on any subcontract until all insurance required of any such subcontractor has been so obtained and approved by the City. Insurance shall be provided by insurers, satisfactory to the City and authorized to do business in the State of Connecticut, an "A-" Best's Rating and at least a Class V3 or better financial size category as shown in the most current A.M. Best Company ratings.

11.2. At no additional cost to the City, the Contractor shall purchase and maintain the insurance coverages set forth below which shall protect the City from claims which may arise out of or result from the Contractor's obligation under this Contract, whether such obligations are the Contractor's or subcontractor or person or entity directly or indirectly employed by said Contractor or subcontractor, or by any person or entity for whose acts said Contractor or subcontractor may be liable.

11.3. Each insurance policy shall state that the insurance company shall agree to investigate and defend the insured against all claims for damages, even if groundless. If any insurance required herein is to be issued or renewed on a claims made form as opposed to an occurrence form, the retroactive date for coverage shall be no later than the commencement date of this Contract and shall provide that in the event of cancellation or non-renewal, the discovery period for insurance claims ("Tail Coverage") shall be available for at least 60 months.

11.4. The following policies with stated limits shall be maintained, in full force and effect, at all times during which the services are to be performed by the Contractor:

11.4.1 General Liability Insurance: $1,000,000.00 per occurrence, **$2,000,000.00** aggregate and **$2,000,000.00** Products and completed operations aggregate
Providing coverage to protect the City for all damages arising out of bodily injuries, sickness to or death of all persons in any one accident or occurrence and for all damages arising out of destruction of property in any one accident or occurrence.

11.4.2 Automobile Liability Insurance: **$1,000,000.00** combined single limit (CSL) each Accident
Providing coverage to protect the City with respect to claims for damage for bodily injury and or property damage arising out of ownership, maintenance, operation, use or loading and unloading of any auto including hired & non-owned autos.

11.4.3 Workers' Compensation: Statutory Limits within the State of Connecticut: Employers' Liability:
EL Each Accident **$500,000.00**
EL Disease Each Employee **$500,000.00**
EL Disease Policy Limit **$500,000.00**

Contractor shall comply with all State of Connecticut statutes as it relates to workers' compensation.

11.4.4 Excess/Umbrella Liability Insurance: Excess or Umbrella insurance coverage that follows form or sits over General Liability, Automobile Liability and Workers Compensation insurances**. $1,000,000.00** each occurrence and **$1,000,000.00** Aggregate.

11.4.5 Contractors Pollution Liability Insurance: $1,000,000.00 each claim, **$1,000,000.00** aggregate coverage.
The foregoing per claim coverage plus appropriate aggregate coverage depending on the size of the job for contractor caused pollution events such as

asbestos or lead abatement, but not limited to only these pollution causes of loss.

11.5. Failure to Maintain Insurance: In the event the Contractor fails to maintain the minimum required coverage as set forth herein, the City may at its option purchase same, and offset the Contractor's invoices for the cost of said insurance.

11.6. Cancellation: The City of Waterbury shall receive written notice of cancellation from the Contractor at least thirty (30) calendar days prior to the date of actual cancellation, regardless of the reason for such cancellation.

11.7. Certificates of Insurance: The Contractor's General, Automobile, Builder's Risk and Excess/Umbrella Liability Insurance policies shall be endorsed to add the City and Board of Education as an additional insured and provide waiver of subrogation on all policies except Builder's Risk and Pollution Liability. The insurance afforded the additional insured shall be primary and non-contributory insurance and the coverage and limits provided under the Contractor's policies shall not be reduced or prorated by the existence of any other insurance applicable to any loss the additional insured may have suffered. Prior to the execution of this Contract by the City, the Contractor shall furnish to the City, subject to City approval, certificate(s) of insurance and Additional Insured Endorsement and Waiver of Subrogation Endorsement verifying the above coverages, including the naming of the City of Waterbury, as follows: **"The City of Waterbury and Board of Education are listed as additional insured on all lines of coverage except Pollution Liability and waiver of subrogation applies to all lines of coverage except Pollution Liability and Builder's Risk as their interest may appear".** The City's Invitation to Bid Number must be shown on the certificate of insurance to assure correct filing. The Contractor must supply replacement/renewal certificates at least 30 days prior to the expiration of the policy(ies). Said certificates shall contain a provision that coverage afforded under the policies shall not be cancelled or reduced for any reasons unless notice of than thirty (30) calendar days has been mailed to the City's Using Agency and a copy to the City's Office of Corporation Counsel, 235 Grand Street, Waterbury, CT 06702.

11.8. No later than thirty (30) calendar days after Contractor receipt, the Contractor shall deliver to the City a copy of the Contractor's insurance policies and endorsements and riders.

12. Conformance with Federal, State and Other Jurisdictional Requirements. By executing this Contract, the Contractor represents and warrants that, at all pertinent and relevant times to the Contract, it has been, is and will continue to be in full compliance with all applicable statutes, acts, ordinances, guidelines, resolutions, orders, judgments, decrees, injunctions, rules, and regulations of all government authorities applicable to performance by the Contractor of services hereunder, including those having jurisdiction over its registration and licensing to perform services hereunder; including, but not limited to, the following: EQUAL EMPLOYMENT OPPORTUNUTY; COPELAND ANTI-KICKBACK ACT, as

supplemented in the Department of Labor Regulations (29 CFR, Part 3); DAVIS BACON ACT as supplemented by Department of Labor Regulations (29 CFR Part 5); Section 103 and 107 of the Contract Work Hours and Safety Standards Act, as supplemented by the Department of Labor Regulations (29 CFR Part 5); the HOUSING and COMMUNITY DEVELOPMENT ACT of 1974, as amended; TITLE 31 and Section 12-430(7) of the State of Connecticut General Statutes. All applicable sections of the City Charter and Code of Ordinances are incorporated by reference made a part hereof.

12.1. Taxes-Federal, State and Local. The City is exempt from Federal Excise and Transportation, State and Local Sales and Use Taxes, including without limitation, taxes that would otherwise be imposed upon the Contractor for transactions required or necessitated hereunder between it and its subcontractors, suppliers, etc. The Contractor remains liable, however, for any applicable tax obligations it incurs. Moreover, the Contractor represents that the bid and pricing contained in this Contract do not include the amount payable for said taxes.

12.2. Labor and Wages-Federal and State. The Contractor and its subcontractors shall conform to Federal and State of Connecticut labor laws, and all other laws, ordinances, and legal requirements affecting the work in Connecticut.

12.2.1 The Contractor is aware of, and shall comply with, the provisions of Title 31, §53 of the Connecticut General Statutes, latest revision (the "Act"), concerning the payment of minimum wages for work on public facilities. The provisions of the Act are hereby incorporated by reference and made a part of this Contract. The Act provides that the Connecticut prevailing wage law applies to certain remodeling, refurbishing, alteration, repair and new construction. The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in Conn.Gen.Statute 31-53(i), shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each pay day.

12.2.2 The Contractor is aware of, and shall comply with, the provisions of the Federal Davis-Bacon Act, the American Rescue Plan Act of 2021 (ARPA) and the Federal American Recovery and Reinvestment Act of 2009, the provisions of all acts hereby incorporated by reference and made a part of this Contract. The Federal Davis-Bacon Act provides that Federal wage rate laws apply to certain federally funded contracts. The American Recovery and Reinvestment Act ("ARRA") and the American Rescue Plan Act of 2021 provides that

Federal wage rate laws apply to all such funded contracts regardless of the contract's dollar value.

12.3. Compliance with Chapters 34, 38, and 39 of the Code of Ordinances of the City. By executing this Contract, the Contractor represents and warrants that, at all pertinent and relevant times to the Contract, it has been, is and will continue to be in full compliance with the provisions of Chapters 34, 38, and 39 of the Code of Ordinances of the City and well as any other relevant provisions of the Charter and the Code of Ordinances.

12.4. Compliance with CONN. GEN. STAT. § 4a-60g, as amended by June 2015 Special Session Public Act 15-5.

12.4.1 Definitions – For purposes of this paragraph:

i. "Small contractor" means any contractor, subcontractor, manufacturer, service company or nonprofit corporation (A) that maintains its principal place of business in the state, (B) that had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year prior to such application, and (C) that is independent. "Small contractor" does not include any person who is affiliated with another person if both persons considered together have a gross revenue exceeding fifteen million dollars.

ii. "Minority business enterprise" means any small contractor (A) fifty-one per cent or more of the capital stock, if any, or assets of which are owned by a person or persons who (i) exercise operational authority over the daily affairs of the enterprise, (ii) have the power to direct the management and policies and receive the beneficial interest of the enterprise, (iii) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, and (iv) are members of a minority, as such term is defined in subsection (a) of section 32-9n, or are individuals with a disability, or (B) which is a nonprofit corporation in which fifty-one per cent or more of the persons who (i) exercise operational authority over the enterprise, (ii) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, (iii) have the power to direct the management and policies of the enterprise, and (iv) are members of a minority, as defined in this subsection, or are individuals with a disability.

iii. "Municipal public works contract" means that portion of an agreement entered into on or after October 1, 2015, between any individual, Contractor or corporation and a municipality for the construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees but excluding any project of

an alliance district, as defined in section 10-262u, as amended by this act, financed by state funding in an amount equal to fifty thousand dollars or less.

12.4.2 The Contractor and subcontractor shall comply with the specific requirements of the State of Connecticut Set Aside Program, CONN. GEN. STAT. § 4a-60g, as amended by June 2015 Special Session Public Act 15-5, if the municipal public works contact awarded to the Contactor is funded in whole or in part by state funds.

13. Discriminatory Practices. In performing this Contract, the Contractor shall not discriminate against any employee or applicant for employment, with respect to his or her hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, sex, age, religious creed, disability, national origin or ancestry, marital status, family status, prior psychiatric treatment, health care, military status or source of income or because of a handicap that is unrelated to the employee's or the applicant's ability to perform the duties of a particular job or position. Subcontracts with each subcontractor shall contain a provision requiring non-discrimination in employment as herein specified. This covenant is required pursuant to §93.04 of the Code of Ordinances of the City and any breach thereof may be regarded as a material breach of this Contract. Said provisions with subcontractors shall require conformity and compliance with all local, state and federal laws, rules and regulations and Executive orders pertaining to discrimination and equal opportunity requirements.

13.1. Discrimination Because of Certain Labor Matters. No person employed on the work covered by this Contract shall be discharged or in any way discriminated against because such person has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or related to the labor standards applicable hereunder to its employer.

13.2. Equal Opportunity. In its execution of the performance of this Contract, the Contractor shall not discriminate and shall comply with applicable laws prohibiting discrimination on the grounds of race, color, religion, sex, national origin or citizenship status, age or handicap. The Contractor agrees to comply with all local, state and federal laws, rules and regulations and Executive orders pertaining to discrimination and equal opportunity requirements, and will require the same of all subcontractors

13.3. Contractor Affirmative Action.

13.3.1. Pursuant to CONN. GEN. STAT. § 4a-60, as amended by June 2015 Special Session Public Act 15-5, the following are required for every Municipal Public Works Contract:

(a) Every contract to which an awarding agency is a party, every quasi-public agency project contract and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut; and the contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved;

(2) The contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission on Human Rights and Opportunities;

(3) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(4) The contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, as amended by this act, 46a-68e, 46a-68f and 46a-86; and

(5) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and section 46a-56, as amended by this act.

(b) If the contract is a public works contract, municipal public works contract or contract for a quasi-public agency project, the contractor agrees and warrants that he or she will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works or quasi-public agency project.

13.3.2. Pursuant to CONN. GEN. STAT. § 4a-60a, as amended by June 2015 Special Session Public Act 15-5, the following are required for every Municipal Public Works Contract:

(a) Every contract to which an awarding agency is a party, every contract for a quasi-public agency project and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or of the state of Connecticut, and that employees are treated when employed without regard to their sexual orientation;

(2) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(3) The contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said commission pursuant to section 46a-56; and

(4) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor which relate to the provisions of this section and section 46a-56.

14. Good Jobs Ordinance

14.1. Conformance With An Ordinance Concerning The Hiring Of Waterbury Residents On Certain Publicly-Funded Construction Projects.

14.1.1 The Contractors and its Subcontractors shall comply with the specific requirements of “An Ordinance Concerning the Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects” (the “Good Jobs Ordinance”), as may be amended from time to time and as set forth in Chapter 34 of the Code of Ordinances of the City. While the principal provisions of the ordinance are summarized as set forth in paragraphs C-H below, the Contractor

does hereby acknowledge that it has reviewed a copy of the Good Jobs Ordinance and that it has read the Ordinance and that Contractor is familiar with the obligations imposed on the Contractor and each Subcontractor by the Good Jobs Ordinance.

14.1.2 Failure of the Contractor or its Subcontractors to comply with the Good Jobs Ordinance shall be a material breach of this Agreement.

14.1.3 This paragraph shall apply to a Covered Project, as that term is defined in the Good Jobs Ordinance, in the City with a value of $500,000.00 or greater and only to the extent permitted by federal and state law.

14.1.4 Definitions. For purposes of this paragraph:

i. “Administrator” shall be defined as it is in the Good Jobs Ordinance.

ii. “Apprentice” shall be defined as it is in the Good Jobs Ordinance.

iii. “Basic Skilled Worker” shall be defined as it is in the Good Jobs Ordinance.

iv. "Contractor” shall be defined as it is in the Good Jobs Ordinance.

v. "Covered Project” shall be defined as it is in the Good Jobs Ordinance.

vi. "Hiring Goal” shall be defined as it is in the Good Jobs Ordinance.

vii. “Resident" shall be defined as it is in the Good Jobs Ordinance.

viii. "Subcontractor" shall be defined as it is in the Good Jobs Ordinance and shall include the Contractor's direct subcontractor providing construction work and all lower tiered (level) providers of construction work.

14.1.5 Hiring Goals. If this Agreement requires the Contractor to perform work on a Covered Project, the Contractor and each Subcontractor shall have as its hiring goals:

i. at least thirty percent (30%) of its total worker hours performed by City Residents, and

ii. at least twenty-five percent (25%) of construction trade jobs shall go to Apprentices and/or Basic Skilled Workers, and

iii. at least seventy percent (70%) of all "new hires" (as that term is defined in the Good Jobs Ordinance) shall be "economically disadvantaged" individuals (as that term is defined in the Good Jobs Ordinance), and

iv. a minimum of five percent (5%) of the construction workforce labor hours will be local resident, minority artisans, and

v. a minimum of five percent (5%) of the construction workforce labor hours will be women, and

vi. a minimum of ten percent (10%) of the total work hours shall be allocated for minorities, or

vii. as may otherwise be required by any superseding Federal or State employment discrimination prohibition laws.

14.1.6 Good Faith Efforts. The Contractor and each Subcontractor shall engage in Good Faith Efforts to comply with the Hiring Goals. For the purposes of this paragraph, the term “Good Faith Efforts” shall have the same meaning as it does in the Good Jobs Ordinance.

The Contractor and each Subcontractor shall individually implement Good Faith efforts to satisfy the Hiring Goals.

14.1.7 Action Plan and Pre-Construction Meeting. Not later than fourteen (14) business days prior to the scheduled commencement date for construction, the Contractor shall submit a written plan-of-action to the City and to the Administrator of the Good Jobs Ordinance defining how the Contractor, and each Subcontractor, shall implement Good Faith Efforts to fulfill the Hiring Goals. Each plan-of-action shall include the anticipated number of job positions required for the Work. Not later than five (5) business day prior to the commencement date of construction, the Contractor must attend a mandatory "pre-construction" meeting with the City to review all plans-of-action and other relevant materials. No construction work shall proceed absent this pre-construction meeting.

14.1.8 Other Contractor Obligations. In addition to the foregoing, the Contractor shall ensure that all Subcontractor contracts and agreements expressly set forth and state as binding obligations therein, subject to appropriate party name change, the above Hiring Goals and Good Faith Efforts. The Contractor shall be accountable for, and liable to the City for, Contractor and each Subcontractor compliance with Hiring Goals and Good Faith efforts.

i. The Contractor shall meet with the Administrator no less than four (4) weeks prior to the commencement of construction on a Covered Project and provide the Administrator with the number of job positions to be created by the project by trade and the qualifications by job tile.

ii. The Contractor shall be required to produce Contractor and Subcontractor documentation that may be required under the provisions of the Good Jobs Ordinance or that the City or the Administrator reasonably believes will assist the City or the Administrator with their evaluation of Hiring Goals and Good Faith Efforts.

iii. The Contractor shall deliver weekly certified payroll records to the City within five (5) working days of the end of each payroll period. Moreover, the Contractor shall require each Subcontractor to create weekly certified payroll records.

iv. The Contractor's and each Subcontractor's payroll records shall include the person-hours, the residential address, race, gender, hiring date, and apprentice (job) classification of all personnel employed under this Agreement and all Contracts and Sub-Contracts thereunder. The Contractor and each Subcontractor shall mark their respective final payroll period records as being final and be signed by an authorized officer or employee.

14.2 Liquidated Damages Applicable To Section 14.1

14.2.1 If the City finds that the Contractor, or a Subcontractor, has failed to achieve Hiring Goals during any five (5) day work period (Monday through Friday), the City shall:

i. issue a written notice to the Contractor specifying the matters constituting such failure and the time period within which Good Faith Efforts documentation must be delivered to the City for its evaluation.

ii. if the Good Faith documentation is not provided or, if provided, it fails to demonstrate compliance with Good Faith Efforts, the Contractor shall, for each failure by the Contractor or a Subcontractor to achieve the Hiring Goals during a full five day work period, pay to the City one thousand dollars ($1,000.00) as liquidated damages.

14.2.2 If the City finds that the Contractor, or a Subcontractor, has failed to deliver weekly certified payroll records to the City within five (5) working days of the end of each payroll period the Contractor shall, as liquidated damages pay one thousand dollars ($1,000.00) to the City for each week of ongoing violation.

14.2.3 The City shall provide the Contractor with an invoice identifying all sums due the City, as liquidated damages, as a result of the Contractor or a Subcontractor's failure to comply with the Good Jobs Ordinance as set forth above.

14.2.4 No portion of any invoice submitted by a Contractor that is subject to liquidated damages shall be paid by the City until such time as all liquidated damages relating to that invoice have been paid to the City.

14.2.5 The foregoing liquidated damages provisions shall be expressly set forth, subject to appropriate party name adjustments, as material provisions in all Contracts that the Contractor has with Subcontractors and the Contractor is obligated hereunder to enforce compliance in such Contracts with Subcontractors.

14.2.6 Any payment of liquidated damages hereunder shall not preclude a later claim, nor any later finding of a breach, or any payment of additional damages related to such later claim.

15. Housing and Urban Development Section 3 Clause. In the event this Contract is funded, in whole or in part, through Housing and Urban Development assistance, 24 C.F.R. §135.38 may apply and the Contractor shall then be required to comply with the following (referred to as the "Section 3 clause"):

15.1. The work to be performed under this Contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. § 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted Projects covered by Section 3, shall, to the greatest extent feasible, be directed to low and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

15.2. The parties to this Contract agree to comply with HUD's regulations in 24 C.F.R. part 135, which implement Section 3. As evidenced by their execution of this Contract, the parties to this Contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.

15.3. The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications

for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

15.4. The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 C.F.R. part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 C.F.R. part 135. The Contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 C.F.R. part 135.

15.5. The Contractor will certify that any vacant employment positions, including training positions, that are filled **(i)** after the Contractor is selected but before the Contract is executed, and **(ii)** with persons other than those to whom the regulations of 24 C.F.R. part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 C.F.R. part 135.

15.6. Noncompliance with HUD's regulations in 24 C.F.R. part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

15.7. With respect to work performed in connection with Section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. § 450e) also applies to the work to be performed under this Contract. Section 7(b) requires that to the greatest extent feasible **(i)** preference and opportunities for training and employment shall be given to Indians, and **(ii)** preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this Contract that are subject to the provisions of Section 3 and section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

16. Termination.

16.1. Termination of Contract for Cause. If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner its obligations under this Contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this Contract, the City shall thereupon have the right to terminate this Contract by either **(i)** giving written notice to the Contractor of a date certain by which Contractor shall, to the written satisfaction of the City, cure after which and without further action by any party, such termination shall automatically become effective and binding, or **(ii)** giving written notice to the Contractor specifying the effective date of such termination at least five (5) business days before the effective date of such termination.

16.1.1 In the event of a termination, all finished or unfinished documents, data, studies, reports, plans, specifications, drawings, supplies, services, etc. prepared by the Contractor under this Contract shall, at the option of the City, become the

City's property, and the Contractor shall be entitled to receive just and equitable compensation for any satisfactory work completed for such.

16.1.2 Notwithstanding the above, the Contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of this Contract by the Contractor, and the City may withhold any payments to the Contractor for the purpose of setoff until such time as the exact amount of damages due the City from the Contractor is determined.

16.2. Termination for Convenience of the City. The City may terminate this Contract at any time for the convenience of the City, by a notice in writing from the City to the Contractor. If this Contract is terminated by the City as provided herein, the Contractor will be paid an amount which bears the same ratio to the total compensation as the services actually performed bear to the total services of the Contractor covered by this Contract, less payments of compensation previously made.

16.3. Termination for Non-Appropriation or Lack of Funding. The Contractor acknowledges that the City is a municipal corporation and that this Contract is subject to the appropriation and disbursement of funds by the City sufficient for this Contract for each budget year in which this Contract is in effect. The Contractor therefore agrees that the City shall have the right to terminate this Contract in whole or in part without penalty to the City in the event that sufficient funds to provide for City payment(s) under this Contract is not appropriated, not authorized, or not made available, or such funding has been reduced. In the event this Contract is subject, in whole or in part, to the appropriation and disbursement of Federal and/or State funds and those Federal and/or State funds are not appropriated or are not disbursed to the City, the Contractor hereby agrees that the City shall have the right to terminate this Contract in whole or in part without penalty to the City.

16.3.1 Effects of Non-Appropriation. If funds to enable the City to effect continued payment under this Contract are not appropriated, authorized or otherwise made available by law, the City shall have the right to terminate this Contract without penalty at the end of the last period for which funds have been appropriated, authorized or otherwise made available by law by giving written notice of termination to the Contractor.

16.3.2 Effects of Reduced Levels of Funding. If funding is reduced by law, or funds to pay the Contractor for the agreed to level of the products, services and functions to be provided by the Contractor under this Contract are not appropriated, authorized or otherwise made available by law, the City may, upon seven (7) business days written notice to the Contractor, reduce the level of the products, services or functions in such manner and for such periods of time as the City may elect. The charges payable under this Contract shall be equitably adjusted to reflect such reduced level of products, services or functions and the parties shall be afforded the rights set forth in this Contract.

16.3.3 No Payment for Lost Profits. In no event shall the City be obligated to pay or otherwise compensate the Contractor for any lost or expected future profits.

16.4. Rights Upon Termination.

16.4.1 Termination for Cause. In the event the City terminates this Contract for cause, the Contractor shall relinquish to the City any applicable interest, title and ownership including, but not limited to, perpetual use of any proprietary rights in and to the products and deliverables delivered to, in possession of and properly invoiced and paid for by (except to the extent such invoiced amount is disputed) the City. With regard to third party products, the Contractor shall transfer all licenses which it is permitted to transfer in accordance with the applicable third party license. The City shall have no financial obligation to compensate the Contractor for such terminated products unless payment is otherwise approved by the City prior to such termination. The Contractor shall be liable for costs incurred by the City, including but not limited to reasonable attorney fees and all court awarded fees and costs incurred in terminating this Contract in whole or in part.

16.4.2 Termination for Lack of Funding or Convenience. In the event of termination by the City for lack of funding or convenience, the City shall pay the Contractor for all labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc.(including any holdbacks) installed and delivered to the City as of the Termination Date and the Contractor shall relinquish to the City any applicable interest, title and ownership including, but not limited to perpetual use of any proprietary rights in and to said labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc. delivered to, in possession of and paid for by the City (except to the extent any invoiced amount is disputed). The Contractor shall be required to exercise commercially reasonable efforts to mitigate damages. In the event of a termination for Lack of Funding or Convenience the City and the Contractor may negotiate a mutually acceptable payment to the Contractor for reasonable demobilization expenses. Said demobilization expenses, if any, shall be handled in accordance with the provision of this Contract pertaining to changes in the Project.

16.4.3 Assumption of Subcontracts. In the event of termination, the City shall have the right to assume, at its option, any and all subcontracts for products, services and functions provided exclusively under this Contract.

16.4.4 Delivery of Documents. In the event of termination, **(i)** the Contractor shall promptly deliver to the City, in a manner reasonably specified by the City, all documents and other tangible items furnished by, or owned, leased, or licensed by, the City, and **(ii)** the City shall pay the Contractor for all services performed and deliverables completed and accepted (pro-rated for deliverables

partially completed) prior to the effective date of the termination (except to the extent any invoice amount is disputed).

17. Force Majeure. Contractor shall not be held responsible for delays nor be subject to liquidated damages when such delays are caused by conditions beyond its control, including without limitation:

17.1. Acts of God, fire, explosion, epidemic, cyclone, flood, war, strikes, revolution, civil commotion, or acts of public enemies; and

17.2. Change of law and order, proclamation, regulation, ordinance, or governmental requirement.

Upon cessation of work for reason of force majeure delays, Contractor shall use its best efforts to meet the schedule set forth in Section 5 of this Contract.

18. Subcontracting. The Contractor shall not, without the prior written approval of the City's Using Agency, subcontract, in whole or in part, any of the Contractor's services. Any subcontractor so approved shall be required to secure and maintain insurance coverage equal to or better than that required of the Contractor and shall name the City as an additional insured party and said subcontractors shall deliver to the City a certificate of insurance evidencing such coverages. All subcontractors shall comply with all federal, state and local, laws, regulations and ordinances but such requirement shall not relieve the Contractor from its requirement that all services provided hereunder shall comply with all Federal, State and local, laws, regulations and ordinances.

18.1. The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by the Contractor.

18.2. The Contractor is responsible for and shall control activities of its subcontractors, and the subcontractors shall consult and cooperate with one another and other contractors working on the Project site. Each subcontractor shall furnish all necessary information to other subcontractors and shall lay out and install its own work so as to avoid any delays or interferences with the work of another. Any cost for changes, cutting and/or repairing, made necessary by failure to observe the above requirements shall be borne by the Contractor or subcontractor responsible for such failure or neglect.

18.3. The Contractor shall not, without the prior written approval of the City's Using Agency, substitute, terminate, replace or otherwise remove a subcontractor.

19. Assignability. The Contractor shall not assign any interest in this Contract, and shall not transfer any interest in the same (whether by assignment or novation) without the prior written approval of the City; provided, however, that claims for money due or to become due the Contractor from the City under this Contract may be assigned to a bank, trust, company, or

other financial institution, or to a Trustee in Bankruptcy, without such approval. Notice of any such assignment or transfer shall be furnished promptly to the City.

20. Audit. The City reserves the right to audit the Contractor's books of account in relation to this Contract any time during the period of this Contract or at any time during the twelve month period immediately following the closing or termination of this Contract. In the event the City elects to make such an audit, the Contractor shall immediately make available to the City all records pertaining to this Contract, including, but not limited to, payroll records, bank statements and canceled checks.

21. Interest of City Officials. No member of the governing bodies of the City, and no other officer, employee, or agent of the City who exercises any functions or responsibilities in connection with the carrying out of the Project to which this Contract pertains, shall have any personal interest, direct or indirect, in this Contract.

22. Interest of Contractor. The Contractor covenants that it presently has no interest and shall not acquire any interest, direct or indirect, in the Project or any parcel of land therein or any other interest which would conflict in any manner or degree with the performance of its services hereunder. The Contractor further covenants that in the performance of this Contract no person having any such interest shall be employed.

23. Entire Contract. This Contract shall constitute the complete and exclusive statement of the contract between the parties as it relates to this transaction and supersedes all previous agreements and understandings, whether written or oral, relating to such subject matter. Any amendment to this Contract must be in writing and agreed to and executed by the City and the Contractor, and must comply with the City's Charter and Code of Ordinances.

24. Independent Contractor Relationship. The relationship between the City and the Contractor is that of client and independent contractor. No agent, employee, or servant of the Contractor shall be deemed to be an employee, agent or servant of the City. The Contractor shall be solely and entirely responsible for its acts and the acts of its agents, employees, servants and subcontractors during the performance of this Contract.

25. Severability. Whenever possible, each provision of this Contract shall be interpreted in such a manner as to be effective and valid under applicable law. If any provision of this Contract, however, is held to be prohibited or invalid under applicable law, such provision shall be deemed restated to reflect the original intentions of the parties, as nearly as possible in accordance with applicable law, and if capable of substantial performance, the remaining provisions of this Contract shall be enforced as if this Contract was entered into without an invalid provision. If the ruling and/or controlling principle of law or equity leading to the ruling is subsequently overruled, modified or amended by legislation, judicial or administrative action, then the provision(s) in question as originally set forth in this Contract shall be deemed valid and enforceable to the maximum extent permitted by the new controlling principal of law or equity.

26. Survival. Any provisions of this Contract that impose continuing obligations on the parties shall survive the expiration or termination of this Contract for any reason.

27. Changes in the Project: Change Orders.

27.1. Requests for Change Orders. The City reserves the right on its own volition, or based upon a proposal for a Change Order submitted in written form with a thorough explanation by the Contractor, to request from time to time any changes to the requirements and specifications of this Contract and the products to be provided and the functions and services to be performed by the Contractor under this Contract. Such changes must be authorized by the City. The City will not approve of any change orders, deletions, additions, or additional work items to the Scope of Services or any change in the terms and conditions of this Contract except by means of a City authorized amended Scope of Services, applicable and restricted to those items set forth in §1, above, or Change Order issued as set forth in this section, except in the event of an emergency endangering life or property.

27.2. Procedures.

27.2.1 The Contractor's Response to a Change Request.

i. Within thirty (30) calendar days after receipt of a request by the City for any such change or such other period of time as the Parties may mutually agree to in writing, the Contractor shall submit to the City a proposal describing any changes in Contract Milestones or Contract completion dates, products, functions, timing of delivery, assignment of personnel, and the like, and any associated price adjustment. The Contractor's proposal shall describe, in detail, the basis for the proposed price adjustment, including the charges for any products required to implement the change request.

ii. To the extent that additional cost or cost savings result from a change in required products, the Contractor shall obtain any additional products and provide them to the City at a negotiated price acceptable to the City and the Contractor. Similarly, if the change request is expected to result in a reduction in products required to perform the services, the Contractor's charges shall be reduced by the cost savings resulting from the products eliminated by the change request**.**

27.2.2 City's Acceptance of Change Request. If the City accepts the Contractor's proposal, the City shall issue a change order referencing the Contractor's proposal and both parties shall sign the change order. The Contractor shall not implement any change request until the City has issued a valid, properly executed, change order.

27.2.3 City's Rejection of Change Request. If the City does not accept the Contractor's proposal, the City may within two weeks of such non-acceptance:

(i) withdraw its change request; or, **(ii)** modify its change request, in which case the procedures set forth above shall apply to the Contractor's response to the modified change request.

27.3. City Discretion. The City may, in its sole discretion, approve the proposed Change Order and shall forward same for additional signatures under the following conditions: **(i)** If it conforms to provisions of applicable laws, and **(ii)** if it is consistent with this Contract, and **(iii)** if the time of performance of this Contract will not be unreasonably delayed, **(iv)** the Final Completion date is not changed, **(v)** if the Change Order requires a change to the Final Completion date, such change has been authorized by an approved, executed, written Amendment to this Contract, and **(vii)** if the Change Order requires an increase in the price of the Contract, the City **(1)** has sufficient funds, and **(2)** if a budget transfer is required to cover the cost of the proposed Change Order, such transfer has secured the written approval of the Board of Aldermen and other required regulatory agencies.

27.4. Change Orders Governed by the Provisions of this Contract. All work performed under a Change Order is governed by the provisions of this Contract.

28. Conflicts or Disputes. This Contract represents the concurrence between the City and the Contractor and governs all disputes between them. In the instance of a conflict or dispute over issues not specifically referenced within the Contract, the following documents shall be used as historical documents, without regard to the order of precedence, to resolve such conflicts or disputes, as follows: **(i)** the City's **RFP Number 7930** and **(ii)** the Contractor's Bid response to **RFP Number 7930**, dated _____. Said historical documents are attached hereto as part of **Attachment A.**

28.1. Procedure. This procedure supersedes all statements to the contrary occurring either in proposals or other prior agreements, oral or written, and all other communications between the parties relating to this subject.

28.2. Presumption. This Contract or any section thereof shall not be construed against any party due to the fact that the Contract or any section thereof was drafted by such party.

29. Disputes; Legal Proceedings; Waiver of Trial by Jury and Continued Performance. The Contractor agrees that its waives a trial by jury as to any and all claims, causes of action or disputes arising out of this Contract or services to be provided pursuant to this Contract. Notwithstanding any such claim, dispute or legal action, the Contractor shall continue to perform services under this Contract in a timely manner, unless otherwise directed by the City.

30. Binding Contract. The City and the Contractor each bind themselves, and their successors, assigns and legal representatives to the other party to this Contract and to the successors, assigns and legal representatives of such other party with respect to all covenants of this Contract.

31. Waiver. Any waiver of the terms and conditions of this Contract by either of the parties hereto shall not be construed to be a waiver of any other term or condition of this Contract.

32. Governing Laws. This Contract, its terms and conditions and any claims arising there from shall be governed by the laws of the State of Connecticut.

33. Notice. Except as otherwise specifically prohibited in this Contract, whenever under this Contract approvals, authorizations, determinations, notices, satisfactions or waivers are required or permitted, such items shall be effective and valid only when given in writing signed by a duly authorized officer of the City or the Contractor, and delivered in hand or sent by mail, postage prepaid, to the party to whom it is directed, which until changed by written notice, are as follows:

Contractor:

City: City of Waterbury
Chase Municipal Building
235 Grand Street
Waterbury, CT 06702

34. City Code of Ordinances, Ethics and Conflict of Interest Code, Provisions.
The Person (the term "Person" shall herein be as defined in Section 38 of the City's Code of Ordinances) supplying the labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc. under this Contract shall comply with all applicable Federal, State and Municipal statutes, regulations, charters, ordinances, rules, etc, whether or not they are expressly stated in this Contract, including but not limited to the following:

34.1. It shall be a material breach of this Contract, and, except as may be permitted by regulations or rulings of the City of Waterbury Board of Ethics it shall be a violation of the City's Code of Ordinances, for any Public Official, City Employee or Member of a Board or Commission who is participating directly or indirectly in the procurement process as set forth in the City's Code of Ordinances, including those participating in exempt transactions, to become or be the employee of any person contracting with the governmental body by whom the Official, Employee, or Board or Commission member is employed or is a member.

34.2. It shall be a material breach of this Contract, and it shall be a violation of the City's Code of Ordinances for any Person to offer, give, or agree to give any current or former Public Official, Employee or Member of a Board or Commission, or for such current or former Public Official, Employee or Member of a Board or Commission to solicit, demand, accept or agree to accept from another Person, a gratuity or an offer of

employment in connection with any: decision; approval; disapproval; recommendation; preparation of any part of a program requirement or a requisition; influencing the content of any specification or procurement standard; or rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a Contract or Purchase Order, or to any solicitation or proposal therefore.

34.3. It shall be a material breach of this Contract and it shall be a violation of the City's Code of Ordinances for any payment, Gratuity, or offer of employment to be made as an inducement for the award of a subcontract or order, by or on behalf of a subcontractor, the prime Contractor or higher tier subcontractor or any Person associated therewith, under a Contract or Purchase Order to the City.

34.4. The value of anything transferred or received in violation of the City's Charter, Code of Ordinances, and/or regulations promulgated there under, by any Person subject to said Charter and/or Ordinances may be recovered by the City.

34.5. Upon a showing that a subcontractor made a kickback to the City, a prime Contractor or a higher tier subcontractor in connection with the award of a subcontract or order there under, it shall be conclusively presumed that the amount thereof was included in the price of the subcontract or order and ultimately borne by the City and will be recoverable hereunder from the recipient. In addition, said value may also be recovered from the subcontractor making such kickbacks. Recovery from one offending party shall not preclude recovery from other offending parties.

34.6. It shall be a material breach of this Contract and it shall be a violation of the City's Code of Ordinances for a Person to be retained, or to retain a Person, to solicit or secure a contract with the City upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee; and every Person, before being awarded a City Contract, shall deliver to the City, on a City authored form, a representation that such Person has not retained anyone in violation of this subsection 34.6, the failure to deliver said form being a material breach of this Contract and a violation of the City's Code of Ordinances. Note, however, this subsection 34.6 shall not apply to full-time Employees who, as a condition of their employment, may be entitled to bonuses or other fees in accordance with their employment relationship.

34.7. The Person hereby expressly represents that he/she/it has complied with those sections of the City's Code of Ordinances requiring that said Person has **(i)** delivered to the City an affidavit, on a City authored form, stating that the Person and its affiliates have no delinquent taxes or other financial obligations owned to the City; **(ii)** filed the City authored financial disclosure statement form as set forth in the City's Code of Ordinances regarding disclosure of financial interests; **(iii)** delivered to the City a written acknowledgement, on a City authored form, evidencing receipt of a copy of the "Ethics and Conflict of Interest" ordinance for the City of Waterbury and hereby expressly represents that said Person is in full compliance with the entirety of said

Code of Ordinances; and **(iv)** filed a current list of all taxable personal and real property as required by the State of Connecticut General Statutes. Any violation of this subsection 34.7 shall be deemed a material breach of this Contract and shall be a violation of the City's Code of Ordinances.

34.8. The definitions set forth in the City's Code of Ordinances shall be the primary source for interpretation of the forgoing subsections 34.1-34.7.

34.9. The Contractor is hereby charged with the requirement that it shall have knowledge of, and shall fully comply with, all relevant provisions of the City's Charter and all relevant provisions of the City's Code of Ordinances, including without limitation Chapters 93, titled "Discriminatory Practices", Chapter 38 titled "Centralized Procurement System", and Chapter 39 titled "Ethics and Conflict of Interest", of said Code as may be amended from time to time.

34.10 The Contractor hereby acknowledges receipt of a copy of the Chapters 38 and 39 of City's Ordinance regarding Procurement, Ethics, and Conflicts of Interest and has familiarized itself with said Code and hereby agrees to adhere to said Code. The text of Chapters 38 and 39 of said Code may be obtained from the Office of the City Clerk of the City and on the internet at the City Clerk's web site: https://www.waterburyct.org/services/city-clerk/code-of-ordinances [click link titled "The City of Waterbury Code of Ordinances *Revised 12/31/19".* For Chapter 38, click on "TITLE III: ADMINISTRATION", then click on "CHAPTER 38: CENTRALIZED PROCUREMENT SYSTEM". For Chapter 39, click on "TITLE III: ADMINISTRATION", then click on "CHAPTER 39: ETHICS AND CONFLICTS OF INTEREST".

34.11. The Contractor is hereby charged with the requirement that it shall have knowledge of, and shall fully comply with, the City's Ordinance Sections 34.15 through 34.99 entitled, "Ordinance Concerning the Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects," and the State of Connecticut Legislature's Special Act No. 01-1.

34.12. Every Person who conducts business with, contracts, with or provides commodities or services to the City, is charged with notice of the extent of the powers and authority, and the limitations thereon, of the Public Officials and Employees of the City, as set forth in the charter of the City, the Code of Ordinances and any Regulations or Policies pertaining thereto. In particular, and without implying any limitation as to its applicability, it applies to all Persons who participate in the procedures pertaining to the Centralized Procurement System as set forth in Chapter 38, and the Ethics and Conflict of Interest provisions set forth in Chapter 39 of the Code of Ordinances.

34.13. INTEREST OF CITY OFFICIALS. No member of the governing body of the City, and no other officer, employee, or agent of the City who exercises any functions or responsibilities in connection with the carrying out of the project, to which

this agreement pertains, shall have any personal interest, direct or indirect, in this agreement.

34.14. PROHIBITION AGAINST CONTINGENCY FEES. The Contractor hereby represents that it has not retained anyone to solicit or secure a contract with the City upon an agreement or understanding for a commission, percentage, brokerage or contingency fee.

34.15. FREEDOM OF INFORMATION ACT NOTICE. Pursuant to State statute, in the event the total compensation payable to the Contractor set forth in Section 6 of this Contract is greater than $2,500,000.00, the City is entitled to receive a copy of any and all Contractor records and files related to the performance of this Contract and those records and files are subject to the Freedom of Information Act ("the Act") and may be disclosed by the City pursuant to the Act.

35. Definitions. Whenever the following, words, terms, etc. appear in this Contract, the intent and meaning shall be as follows:

35.1 Additional Work: Work required by the City that involves a substantial addition to, deduction from or modification of the Contract Documents.

35.2 Bid or Proposal: The form on which the bidder is to submit a bid for the Work contemplated.

35.3 Bidder: A person, partnership, corporation or other business organization submitting a bid on the form for the Work contemplated.

35.4 City: The City of Waterbury, acting directly or through specifically authorized personnel.

35.5 Construction Supervisor: An employee of the City of Waterbury, or other City duly authorized person.

35.6 Contract Time: The number of days as stated in the Contract to: (i) achieve Substantial Completion, (ii) Final Completion.

35.7 Equal: The recognized equivalent in substance and function; considering quality, workmanship, economy of operation, durability and suitability for purposes intended, and not constituting a change in the Work specified. Whenever the words "equal" or "equals" or words of like import are used, it shall be understood they mean "equal" in the opinion of the City.

35.8 Final Completion: The time at which the Project has progressed to the point where, in the opinion of the City, the Project is complete such that it is ready for final payment as evidenced by the City's, or its duly authorized City representative's, written recommendation of final payment. The terms "finally

complete" and "finally completed" as applied to the Project refer to Final Completion.

35.9 Notice to Proceed: A letter from the City which shall state the date of execution of the Contract and specifically advise the Contractor to begin work on the Contract.

35.10 Plans: All drawings or reproductions of drawings pertaining to the construction of the work contemplated and its appurtenances.

35.11 Project Engineer or Manager: An employee of the City or a person, partnership, corporation or other business organization under contract with the City, commissioned to perform construction administration and inspection duties during construction.

35.12 Shop Drawings: Drawings, diagrams, schedules, performance charts, brochures and other materials prepared by the Contractor or subcontractors, manufacturers or distributors which illustrate some portion of the work.

35.13 Specifications or Technical Specifications: The description, provisions and other requirements pertaining to the materials, methods and manner of performing the Project.

35.14 Subcontractor: A person, partnership, corporation or other business organization supplying labor and/or materials for work at the site of the Project to and under agreement with the Contractor.

35.15 Substantial Completion: The time at which, in the opinion of the Engineer, the Project (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Project (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Project mean Substantial Completion thereof.

35.16 Substitution: A replacement of specified material, device or equipment which is sufficiently different in substance, function, quality or workmanship to become the subject of a Change Order.

35.17 Supplementary General Conditions: An extension to the terms, conditions, and provisions set forth in this document as additional, material, provisions of this Contract.

35.18 Work: All plant, labor, materials, services, supplies, equipment and other facilities and items necessary for, or incidental to, the completion of the terms of the Contract.

35.19 Using Agency: The City of Waterbury Board of Education

[Signature page follows]

IN WITNESS WHEREOF, the parties hereto execute this Contract on the dates signed below.

WITNESSES:

_____

_____

CITY OF WATERBURY

By:_____
Paul K. Pernerewski, Jr., Mayor

Date: _____

WITNESSES:

_____

_____

By:_____

Its _____

Date: _____

ATTACHMENT A

INDEX TO THE SUPPLEMENTARY CONDITIONS OF THE CONTRACT

.ARTICLE NUMBER	TITLE	PAGE NUMBER
1.	PLANS AND SPECIFICATIONS AT THE SITE	_____
2.	CONSTRUCTION PROGRESS SCHEDULE	_____
3.	SCHEDULE OF VALUES; APPLICATION FOR PAYMENT .	_____
4.	PARTIAL PAYMENTS	_____
5.	CONSTRUCTION EQUIPMENT.....	_____
6.	INSPECTION AND TESTS	_____
7.	UTILITIES	_____
8.	PROGRESS MEETINGS.....	_____

1. PLANS AND SPECIFICATIONS AT THE SITE

The Contractor shall maintain at the Project site two (2) copies of all Plans, Specifications, Addenda, approved Shop Drawings, Change Orders and other Modifications, Schedules and Instructions, in good order. One copy is to be marked to record all changes made during construction. These shall be available at all times to the Project Engineer and the City or their authorized representatives. At the conclusion of construction, the Contractor is to turn one (1) corrected set over to the Project Engineer.

2. CONSTRUCTION PROGRESS SCHEDULE

A. Within one (1) week after the Notice to Proceed, and prior to commencement of any work on site, the Contractor shall submit for the approval of the City three (3) copies of a Construction Progress Schedule which shall be developed by the Contractor through cooperation of the Project Engineer or authorized personnel. At the same time, the Contractor shall submit the Schedule of Values, Sedimentation and Erosion Control measures, Water Control Plan and Environmental Protection Plan.

B. The Progress Schedule shall indicate the proposed scheduling of the items of work listed in the various divisions of the work in the specifications. The schedule shall also indicate all subcontractors to be utilized on the Contract and the portions of the Contract that they will be performing. The Contractor shall evaluate the status of the Project at least monthly, comparing it to the original schedule which shall be revised as required.

3. SCHEDULE OF VALUES; APPLICATION FOR PAYMENT

A. Within one (1) week after the Notice to Proceed, as a basis for estimating partial payments, the Contractor shall submit for the approval of the City a certified Schedule of Values, broken down into quantities and unit costs for the various parts of the work, divided as may be directed and aggregating the total sum of the Contract; and if required, he shall submit evidence supporting this schedule.

B. The Contractor's requisition for payment shall be subdivided into items to correspond with the approved schedule and shall be in such numbers of copies as may be designated by the City.

4. PARTIAL PAYMENTS

A. The City will review the Contractor's monthly requisitions for Partial Payments to arrive at what is, in its opinion, a fair and just estimate of the materials suitably stored on the site and the amount of work performed on the Contract. At its discretion, the City may allow to be included in the monthly requisitions materials stored off the site. In the event the City allows the Contractor to include in its requisitions payments for materials stored off the site, the Contractor shall also submit any additional bonds and/or insurance certificates relating to off-site stored material, and follow such other procedures as may be required by the City.

B. In making such Partial Payments for the Project, retainage shall be held in accordance with Clean Water Funding Regulations (if applicable).

5. CONSTRUCTION EQUIPMENT

A. The Contractor shall furnish and maintain, at its own cost and risk, all tools, apparatus and appliances, hoists and/or cranes and power for same, scaffolding, runways, ladders, temporary supports and bracing and all other similar work or material necessary to insure speed, convenience and safety in the execution of its Contract. All such items shall be subject to approval of the City, upon Engineer’s recommendation, as to general stability, type and location, but the responsibility for proper design, strength and safety shall remain with the Contractor. All such items shall comply with OSHA regulations and all other applicable codes, statutes, rules and regulations.

B. The Contractor shall provide all drains, drainage, ditches and pumping apparatus (including power and attendance for same) that may be necessary to keep all excavations and subgrade work free from water.

6. INSPECTION AND TESTS

A. All material and workmanship (if not otherwise designated by the Specifications)

shall be subject to inspection, examination and testing by the City and/or Project Engineer at any and all times during manufacture and/or construction and at any and all places where such manufacture and/or construction is carried on. All tests shall be made at the Contractor's expense. Notice of the time of all tests to be made at the site shall be given to all interested parties.

B. Without additional charge, the Contractor shall promptly furnish all reasonable facilities, labor and materials necessary to make tests safe and convenient. Special, full size and performance tests shall be as described in the Specifications.

C. If, at any time before final acceptance of the entire Project, the City and/or Project Engineer considers it necessary or advisable to examine any portion of the Project already completed by removing or testing out the same, the Contractor shall upon request furnish promptly all necessary facilities, labor and materials. If such work is found to be defective in any material respect because of a fault of the Contractor or any of its subcontractors, or if any work shall have been covered over without the approval or consent of the City (whether or not it is found to be defective), the Contractor shall be liable for testing costs and all costs of correction, including labor, material, services of required consultants, additional supervision and administrative costs.

7. UTILITIES

A. The accuracy and completeness of the utility information shown on the Plans is not guaranteed. The Contractor shall make its own investigation of the extent and location of utilities and of the possibility of relocation work by the utility companies, and shall plan its operations accordingly. No claim for any delays, damage or extra work occasioned thereby will be allowed.

B. The Contractor shall allow others access to the Project for the purpose of placing, relocating or maintaining utilities, and he shall cooperate in every way in the performance of this Project.

C. The Contractor shall notify the utility owners well in advance of the time the Contractor proposes to perform any work which would endanger utility installations, and the Contractor shall cooperate with the utility owners in relocating and/or protecting such installations during construction operations.

D. No payment will be made to the Contractor for locating, protecting and making arrangements for relocating public utilities or for any delays caused thereby. The Contractor shall include all costs of this Project in other scheduled items of the Contract.

E. The Contractor shall contact "Call Before You Dig" at least two days prior to commencing any excavation on the site (toll free in Connecticut at 1-800-922-4455).

8. PROGRESS MEETINGS

Progress meetings will be held weekly at locations, dates and times selected by the OWNER for the purpose of reviewing, scheduling and coordinating the Project's progress as well as other matters.

Attachment C Document

- ADDENDUM/CERTIFICATION/NOTICE OF ACCEPTANCE

ATTACHMENT C

KEVIN MC CAFFERY
DIRECTOR OF PURCHASING
235 GRAND STREET, ROOM 103
WATERBURY, CT 06702

The undersigned declares that the only persons or parties interested in this Proposal as principals are as stated; that the Proposal is made without any collusion with other persons, firms, or corporations; that Proposer has carefully examined the entire Request for Proposal; that Proposer has informed itself fully in regard to all conditions pertaining to the Work and the place where it is to be performed; and that with this representation, the undersigned makes this Proposal. These prices shall cover all expenses incurred in performing the Work required under the Contract Documents, of which this Proposal and Form are a part.

The undersigned agrees and covenants that the Contract Time shall commence on delivery of the City of Waterbury's written notice to proceed, which shall occur after contract execution by both parties.

The undersigned acknowledges receipt of addenda numbered: (insert date)

1 _____ 4 _____

2 _____ 5 _____

3 _____ 6 _____

All Work for this Project shall be performed at the Proposal Prices as described in the Proposal Documents.

The undersigned hereby certifies under the penalties of perjury that this Proposal is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this section, the work "person" shall mean any natural person, joint venture, partnership, corporation, or other business or legal entity.

_____ _____

Social Security Number
or Federal Identification Number

Signature of Individual or Corporate Name

_____

Corporate Officer
(if applicable)

City notice of acceptance should be mailed, telegraphed or delivered to the undersigned Proposer at the following address:

Name _____
By: _____
(Title)
Business Address: _____
(City, State, Zip Code)
_____
_____
Phone: _____
Email:_____
Date: _____

Note: If the Proposer is a corporation, indicate State of incorporation under signature, and affix corporate seal; if a partnership, give full names and residential addresses, if different from business address.

Attachment D Document

- INSURANCE REQUIREMENTS

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Kennedy High School Roof Replacement
RFP# 7930
Project 151-0307RR

Attachment D
Insurance Requirements

Contractor/Vendor shall agree to maintain in force at all times during the contract the following minimum coverages and shall name the City of Waterbury and the Waterbury Board of Education as Additional Insured on a primary and non-contributory basis to all policies, except Workers Compensation. All policies should also include a Waiver of Subrogation. Insurance shall be written with Carriers approved in the State of Connecticut and with a minimum AM Best's rating of "A"VIII.

If any policy is written on a "Claims Made" basis, the policy must be continually renewed for a minimum of two (2) years from the completion date of this contract. If the policy is replaced and/or the retroactive date is changed, then the expiring policy must be endorsed to extend the reporting period for claims for the policy in effect during the contract for two (2) years from the completion date.

Original, completed Certificates of Insurance must be presented to the City of Waterbury and the Waterbury Board of Education prior to contract issuance. Contractor/Vendor agrees to provide replacement/renewal certificates at least 30 days prior to the expiration date of the policies. Should any of the above described policies be cancelled, limits reduced or coverage altered, 30 days written notice must be given to the City of Waterbury and the Waterbury Board of Education.

General Liability:	**$1,000,000 each Occurrence** **$2,000,000 General Aggregate** **$2,000,000 Products/ Completed Operations Aggregate**
Auto Liability:	**$1,000,000 Combined Single Limit each Accident** **Any Auto, All Owned and Hired Autos**
Workers Compensation:	**WC Statutory Limits** **Employer Liability (EL)** **$1,000,000 EL each Accident** **$1,000,000 EL Disease each Employee** **$1,000,000 EL Disease Policy Limits**
Excess/Umbrella Liability:	**$10,000,000 each Occurrence** **$10,000,000 Aggregate**

Wording for Additional Insured Endorsement and Waiver of Subrogation:
The City Waterbury and its Board of Education is listed as an Additional Insured on a primary and non-contributory basis on all policies except Workers Compensation. All policies shall include a Waiver of Subrogation.

Attachment E Document

- COST PROPOSAL FORM

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Kennedy High School Roof Replacement
RFP# 7930
Project 151-0307RR
ATTACHMENT E

Price Proposal

(Must be submitted as part of Proposal in a separate sealed envelope, marked "Confidential: Price Proposal.")

Date: _____

Kevin McCaffery
Director of Purchasing
City of Waterbury
235 Grand Street, Room 103
Waterbury, CT 06702

Sir:

Pursuant to and in compliance with your RFP, the Undersigned,

_____
(Print or Type Company/Corporate Name)

_____
(Print or Type Business Address)

_____

_____

_____

having carefully examined all the RFP Documents, together with all Addenda, as acknowledged on Attachment C, and having informed itself fully in regard to all conditions and related requirements pertaining to the performance of services required under this RFP; and that with this representation, the undersigned makes this Proposal, as follows:

[Proposal continued on following page(s)]

Roof Replacement		
Description	**Amount (In Words)**	**Amount (In $)**
Kennedy High School		**$**
	GRAND TOTAL	**$**

Alternates:

The undersigned proposes to furnish all Labor, Materials, Equipment and Services necessary to construct the items listed in the Alternates described in Section 012300 for the stipulated sum of:

DEDUCT ALTERNATE #1: Twenty (20) Year Warranty: Deduct from the Base Bid a Total of:

$ _____ Dollars ($ .00).
written figure

The project schedule will be (increased/decreased) by _____ calendar days to complete the work indicated under Deduct Alternate 1.

Unit Prices (See Section 012200):

As required by the Base Bid, should inadequate, deteriorated, or damaged materials be required to be removed as determined by the Architect or Owner, the cost to remove and replace the referenced material, (or credit for specified material not provided or installed) including all labor, material, equipment, and related furnishings is as follows:

Item	Description	Unit Price
1.	Tectum roof deck, thickness to match existing roof deck to be removed (including deteriorated roof deck removal, credit and add)	$ sf
2.	Add pressure treated wood blocking, as specified, cut to fit around roof structure and systems installed	$ bf
3.	Deduct pressure treated wood blocking, as specified, cut to fit around roof structure and system installed	$ bf

END OF ATTACHMENT E

Attachment G Document

- SCOPE OF SERVICES – PROJECT MANUAL AND ARCHITECTURAL DRAWINGS

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Kennedy High School Roof Replacement
RFP# 7930
Project 151-0307RR

ATTACHMENT G

Scope of Services

GENERAL DESCRIPTION

Technical Specifications

See architectural design specs and manual.

PROJECT MANUAL

CITY OF WATERBURY
CONNECTICUT

PARTIAL ROOF REPLACEMENT

JOHN F. KENNEDY HIGH SCHOOL
422 HIGHLAND AVENUE
WATERBURY, CT 06708

STATE PROJECT #151-0307 RR
S/P+A PROJECT #22.059

VOLUME 1 OF 1

BC/PCR Submission: March 27, 2023
Issued for Bid: October 23, 2023

Architects | Engineers | Interior Designers
Silver Petrucelli + Associates, Inc.
3190 Whitney Avenue, Hamden, CT 06518
311 State Street, New London, CT 06320

PARTIAL ROOF REPLACEMENT

JOHN F. KENNEDY HIGH SCHOOL
422 HIGHLAND AVENUE
WATERBURY, CT 06708
STATE PROJECT #151-0307 RR

S/P+A PROJECT #22.059

DIVISION 00 – PROCUREMENT AND CONTRACT REQUIREMENTS		PAGES
	Prevailing Wage Rate Information	29
	Drawing List	1
DIVISION 01 – GENERAL REQUIREMENTS		
Section 011000	Summary of Work	3
Section 012100	Allowances	3
Section 012200	Unit Prices	1
Section 012300	Alternates	2
Section 012500	Substitution Procedures	4
Section 012600	Contract Modification Procedures	3
Section 012900	Payment Procedures	4
Section 013100	Project Management and Coordination	5
Section 013200	Construction Progress Documentation	6
Section 013233	Photographic Documentation	2
Section 013300	Submittal Procedures	8
Section 014000	Quality Requirements	7
Section 014200	References	7
Section 015000	Temporary Facilities and Controls	4
Section 016000	Product Requirements	5
Section 017300	Execution	6
Section 017700	Closeout Procedures	4
Section 017823	Operation and Maintenance Data	7
Section 017839	Project Record Documents	3
DIVISION 02 – EXISTING CONDITIONS		
	Limited Asbestos Inspection Report, June 9, 2023	17
DIVISION 04 – MASONRY		
Section 042000	Unit Masonry	11
DIVISION 05 – METALS		
Section 053100	Steel Decking	3
Section 055000	Metal Fabrications	5
DIVISION 06 – WOOD, PLASTICS AND COMPOSITES		
Section 061000	Rough Carpentry	4

DIVISION 06 – WOOD, PLASTICS AND COMPOSITES

Section 061000	Rough Carpentry	4

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

Section 070150.19	Preparation for Reroofing	6
Section 075216	Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing	11
Section 076200	Sheet Metal Flashing and Trim	8
Section 077100	Roof Specialties	7
Section 077129	Manufactured Roof Expansion Joints	4
Section 077200	Roof Accessories	8
Section 078413	Penetration Firestopping	4
Section 079200	Joint Sealants	5

DIVISION 08 – OPENINGS

Section 086200	Unit Skylights	5

DIVISION 09 – FINISHES

Section 099113	Exterior Painting	5

DIVISION 22 – PLUMBING

Section 220719	Plumbing Piping Insulation	15
Section 221423	Storm Drainage Piping Specialties	2

END OF TABLE OF CONTENTS

CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM

Construction Manager at Risk/General Contractor/Prime Contractor

I,_____ of _____
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the _____
Company Name

_____
Street

_____
City

and all of its subcontractors will pay all workers on the

_____
Project Name and Number

_____
Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

_____
Signed

Subscribed and sworn to before me this _____ day of _____,_____.

_____
Notary Public

Return to:

Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

Minimum Rates and Classifications for Building Construction

ID#: 23-56213

Connecticut Department of Labor
Wage and Workplace Standards

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number:
State#:
Project: JFK High School Roof Replacement

Project Town: Waterbury
FAP#:

CLASSIFICATION	Hourly Rate	Benefits
1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
1c) Asbestos Worker/Heat and Frost Insulator	45.56	32.65
2) Boilermaker	45.21	29.05
3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	39.4	34.62 + a
3b) Tile Setter	37.1	30.52
3c) Tile and Stone Finishers	30.0	25.30
3d) Marble & Terrazzo Finishers	31.07	24.23
3e) Plasterer	42.77	29.63

As of: December 21, 2023

4) Group 1: General laborers, carpenter tenders, concrete specialists, wrecking laborers and fire watchers.	33.5	25.59
4) Group 1a: Acetylene Burners (Hours worked with a torch)	34.5	25.59
4a) Group 2: Mortar mixers, plaster tender, power buggy operators, powdermen, fireproofer/mixer/nozzleman (Person running mixer and spraying fireproof only).	33.75	25.59
4b) Group 3: Jackhammer operators/pavement breaker, mason tender (brick), mason tender (cement/concrete), forklift operators and forklift operators (masonry).	34.0	25.59
4c) **Group 4: Pipelayers (Installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license) (the pipelayer rate shall apply only to one or two employees of the total crew who primary task is to actually perform the mating of pipe sections) P6 and P7 rate is $26.80.	34.5	25.59
4d) Group 5: Air track operator, sand blaster and hydraulic drills.	34.25	25.59
4e) Group 6: Blasters, nuclear and toxic waste removal.	36.5	25.59
4f) Group 7: Asbestos/lead removal and encapsulation (except it's removal from mechanical systems which are not to be scrapped).	36.5	25.59
4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew.	31.78	25.59
4h) Group 9: Top men on open air caisson, cylindrical work and boring crew.	31.24	25.59
4i) Group 10: Traffic Control Signalman	20.1	25.59

4j) Group 11: Toxic Waste Removers A or B With PPE	36.5	25.59
5) Carpenter, Acoustical Ceiling Installation, Soft Floor/Carpet Laying, Metal Stud Installation, Form Work and Scaffold Building, Drywall Hanging, Modular-Furniture Systems Installers, Lathers, Piledrivers, Resilient Floor Layers.	37.61	27.61
5a) Millwrights	38.02	28.41
6) Electrical Worker (including low voltage wiring) (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	43.4	32.07+3% of gross wage
7a) Elevator Mechanic (Trade License required: R-1,2,5,6)	61.42	37.335+a+b
-----LINE CONSTRUCTION----		
Groundman	26.5	6.5% + 9.00
Linemen/Cable Splicer	48.19	6.5% + 22.00
8) Glazier (Trade License required: FG-1,2)	41.18	24.55 + a
9) Ironworker, Ornamental, Reinforcing, Structural, and Precast Concrete Erection	42.37	40.02 + a
----OPERATORS----		
Group 1: Crane Handling or Erecting Structural Steel or Stone; Hoisting Engineer (2 drums or over). (Trade License Required)	52.78	27.80 + a
Group 1a: Front End Loader (7 cubic yards or over); Work Boat 26 ft. and Over	48.37	27.80 + a

As of: December 21, 2023

Group 2: Cranes (100 ton rate capacity and over); Bauer Drill/Caisson. (Trade License Required)	52.41	27.80 + a
Group 2a: Cranes (under 100 ton rated capacity).	51.51	27.80 + a
Group 2b: Excavator over 2 cubic yards; Pile Driver ($3.00 premium when operator controls hammer)	48.0	27.80 + a
Group 3: Excavator; Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar);Grader Operator; Bulldozer Finegrade. (slopes, shaping, laser or GPS, etc.). (Trade License Required)	47.1	27.80 + a
Group 4: Trenching Machines; Lighter Derrick; CMI Machine or Similar; Koehring Loader (Skooper); Goldhofer.	46.64	27.80 + a
Group 5: Specialty Railroad Equipment; Asphalt Spreader, Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24 mandrel).	45.92	27.80 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	45.92	27.80 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	45.55	27.80 + a
Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under mandrel).	45.14	27.80 + a
Group 8: Mechanic; Grease Truck Operator; Hydroblaster; Barrier Mover; Power Stone Spreader; Welding; Work Boat Under 26 ft.; Transfer Machine; Rigger Foreman.	44.67	27.80 + a
Group 9: Front End Loader (under 3 cubic yards); Skid Steer Loader regardless of attachments; (Bobcat or Similar); Forklift, Power Chipper; Landscape Equipment (including Hydroseeder); Vacuum Excavation	44.14	27.80 + a

Truck and Hydrovac Excavation Truck (27 HG pressure or greater).		
Group 10: Vibratory hammer; ice machine; diesel and air, hammer, etc.	41.69	27.80 + a
Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment.	41.69	27.80 + a
Group 12: Wellpoint Operator.	41.61	27.80 + a
Group 13: Compressor Battery Operator.	40.92	27.80 + a
Group 14: Elevator Operator; Tow Motor Operator (solid tire no rough terrain).	39.54	27.80 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	39.06	27.80 + a
Group 16: Maintenance Engineer.	38.28	27.80 + a
Group 17: Portable Asphalt Plant Operator; Portable Crusher Plant Operator; Portable Concrete Plant Operator; Portable Grout Plant Operator; Portable Water Filtration Plant Operator.	43.46	27.80 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (Minimum for any job requiring a CDL license); Rigger; Signalman.	40.54	27.80 + a
------PAINTERS (Including Drywall Finishing)------		
10a) Brush and Roller	37.62	24.55
10b) Taping Only/Drywall Finishing	38.37	24.55

10c) Paperhanger and Red Label	38.12	24.55
10e) Blast and Spray	40.62	24.55
11) Plumber (excluding HVAC pipe installation) (Trade License required: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2)	48.28	35.50
12) Well Digger, Pile Testing Machine	37.26	24.05 + a
Roofer: Cole Tar Pitch	44.5	23.30 + a
Roofer: Slate, Tile, Composition, Shingles, Singly Ply and Damp/Waterproofing	43.0	23.30 + a
15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	41.89	43.22
16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G-9)	48.28	35.50
------TRUCK DRIVERS------		
17a) 2 Axle, Helpers	32.16	30.51 + a
17b) 3 Axle, 2 Axle Ready Mix	32.27	30.51 + a
17c) 3 Axle Ready Mix	32.33	30.51 + a
17d) 4 Axle	32.39	30.51 + a
17e) 4 Axle Ready Mix	32.44	30.51 + a

As of: December 21, 2023

17f) Heavy Duty Trailer (40 Tons and Over)	34.66	30.51 + a
17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	32.44	30.51 + a
17h) Heavy Duty Trailer up to 40 tons	33.39	30.51 + a
17i) Snorkle Truck	32.54	30.51 + a
18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	47.55	32.27 + a
19) Theatrical Stage Journeyman	25.76	7.34

Welders: Rate for craft to which welding is incidental.

**Note: Hazardous waste removal work receives additional $1.25 per hour for truck drivers.*

***Note: Hazardous waste premium $3.00 per hour over classified rate*

Crane with 150 ft. boom (including jib) - $1.50 extra
Crane with 200 ft. boom (including jib) - $2.50 extra
Crane with 250 ft. boom (including jib) - $5.00 extra
Crane with 300 ft. boom (including jib) - $7.00 extra
Crane with 400 ft. boom (including jib) - $10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyperson instructing and supervising the work of each apprentice in a specific trade.

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page: www.ct.gov/dol. For those without internet access, please contact the division listed below.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of: December 21, 2023

As of: December 21, 2023

Connecticut Department of Labor
Wage and Workplace Standards Division
FOOTNOTES

⇨ Please Note: If the "Benefits" listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the "Benefits" section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons
(Building Construction) and
(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Elevator Constructors: Mechanics

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.

b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators
(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

STATUTE 31-55a

- SPECIAL NOTICE –

To All State and Political Subdivisions,Their Agents, and Contractors
Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the ***contractor's*** responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web page: www.ctdol.state.ct.us. For those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project. All subsequent annual adjustments will be posted on our Web Site for contractor access.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.

Information Bulletin
Occupational Classifications

The Connecticut Department of Labor has the responsibility to properly determine *"job classification"* on prevailing wage projects covered under C.G.S. Section 31-53(d).

Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification. If unsure, the employer should seek guidelines for CTDOL.

Below are additional clarifications of specific job duties performed for certain classifications:

- ***ASBESTOS WORKERS***

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

- ***ASBESTOS INSULATOR***

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

- ***BOILERMAKERS***

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

- ***BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO WORKERS, TILE SETTERS***

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

- ***<u>CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS</u>***

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

- **LABORER, CLEANING**

• The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

- **DELIVERY PERSONNEL**

• If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages <u>are not required</u>. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.

• An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer or tradesman, and not a delivery personnel.

- ***<u>ELECTRICIANS</u>***

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. ****License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.***

- ***ELEVATOR CONSTRUCTORS***

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. ****License required by Connecticut General Statutes: R-1,2,5,6.***

- ***FORK LIFT OPERATOR***

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

- ***GLAZIERS***

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers, which require equal composite workforce.

- ***IRONWORKERS***

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which require equal composite workforce.

- ***INSULATOR***

• Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings.

- ***LABORERS***

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), decorative security fence (non-metal).

installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

- ***PAINTERS***

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hhg for any and all types of building and residential work.

- ***LEAD PAINT REMOVAL***

• Painter's Rate

1. Removal of lead paint from bridges.
2. Removal of lead paint as preparation of any surface to be repainted.
3. Where removal is on a Demolition project prior to reconstruction.

• Laborer's Rate

1. Removal of lead paint from any surface NOT to be repainted.
2. Where removal is on a *TOTAL* Demolition project only.

- ***PLUMBERS AND PIPEFITTERS***

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. ****License required per Connecticut General Statutes: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.***

- ***POWER EQUIPMENT OPERATORS***

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. ****License required, crane operators only, per Connecticut General Statutes.***

- ***ROOFERS***

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (demolition or removal of any type of roofing and or clean-up of any and all areas where a roof is to be relaid.)

- ***SHEETMETAL WORKERS***

Fabricate, assembles, installs and repairs sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, facia, louvers, partitions, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers. To include testing and air –balancing ancillary to installation and construction.

- ***SPRINKLER FITTERS***

Installation, alteration, maintenance and repair of fire protection sprinkler systems. ****License required per Connecticut General Statutes: F-1,2,3,4.***

- ***TILE MARBLE AND TERRAZZO FINISHERS***

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

- **TRUCK DRIVERS**

~How to pay truck drivers delivering asphalt is under REVISION~

Truck Drivers are requires to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. ****License required, drivers only, per Connecticut General Statutes.***

For example:

• Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
• Hauling material off site is not covered provided they are not dumping it at a location outlined above.
• Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

➢ *Any questions regarding the proper classification should be directed to:*
Public Contract Compliance Unit
Wage and Workplace Standards Division
Connecticut Department of Labor
200 Folly Brook Blvd, Wethersfield, CT 06109
(860) 263-6543.

Sec. 31-53b. Worker training requirements for public works projects. Enforcement. Regulations. Exceptions. (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (h) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 46 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268, and on or after July 1, 2012, that any plumber or electrician subject to the continuing education requirements of section 20-334d, who has completed a course of at least ten hours in duration in construction safety and health approved by federal Occupational Safety and Health Administration five or more years prior to the date such electrician or plumber begins work on such public works project, has completed a supplemental refresher training course of at least four hours in duration in construction safety and health taught by a federal Occupational Safety and Health Administration authorized trainer.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2012, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in the case of a supplemental refresher training course, shall include, but not be limited to, an update of revised Occupational Safety and Health Administration standards and a review of required construction hazards training, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project or, in the case of supplemental refresher training, a student course completion card issued by said Occupational Safety and Health Administration authorized

trainer dated not earlier than five years prior to the date such electrician or plumber begins work on such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1; P.A. 10-47, S. 2; P.A. 11-63, S. 1)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009; P.A. 10-47 made a technical change in Subsec. (a); P.A. 11-63 amended Subsec. (a) by adding provision re supplemental refresher training course for plumbers and electricians subject to Sec. 20-334d, amended Subsec. (c) by adding provisions re regulations and subject matter of refresher training course and refresher train course student completion cards, and made technical changes, effective July 1, 2011.



Opportunity ⋆ Guidance ⋆ Support

CONNECTICUT DEPARTMENT OF LABOR

THIS IS A PUBLIC WORKS PROJECT

Covered by the

PREVAILING WAGE LAW

CT General Statutes Section 31-53

If you have QUESTIONS regarding your wages
CALL (860) 263-6790

Section 31-55 of the CT State Statutes requires every contractor or subcontractor performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least $100,000)

(1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);

(2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;

(3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least $100,000;

(4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;

(5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;

(6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;

(7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;

(8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;

(9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

(10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;

(11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;

(12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;

(13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;

(14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and

(15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.

(16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTMATELY ARISE CONCERNIG THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

November 29, 2006

Notice

To All Mason Contractors and Interested Parties Regarding Construction Pursuant to Section 31-53 of the Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.

- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

NOTICE

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached “Contracting Agency Certification Form” to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

Inquiries can be directed to 860.263.6790.







CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

Contracting Agency Certification Form

I,_____, acting in my official capacity as _____,
Authorized Representative Title

for _____, located at _____,
Contracting Agency Address

do hereby certify that the total dollar amount of work to be done in connection with

_____, located at _____,
Project name and number Address

shall be $_____, which includes all work, regardless of whether such project contains of one or more contracts.

Contractor Information

Name: _____

Address: _____

Authorized Representative: _____

Approximate Starting Date: _____

Approximate Completion Date: _____

_____ _____
Signature Date

Return to:

Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

[New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

In accordance with Connecticut General Statutes, 31-53 Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency.

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

WEEKLY PAYROLL

Connecticut Department of Labor
Wage and Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

CONTRACTOR NAME AND ADDRESS:

SUBCONTRACTOR NAME & ADDRESS

WORKER'S COMPENSATION INSURANCE CARRIER

POLICY #

EFFECTIVE DATE:
EXPIRATION DATE:

PAYROLL NUMBER | Week-Ending Date | PROJECT NAME & ADDRESS

PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE S	M	T	W	TH	F	S HOURS WORKED EACH DAY	Total ST Hours Total O/T Hours	BASE HOURLY RATE TOTAL FRINGE BENEFIT PLAN CASH	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS FICA	FEDERAL WITH-HOLDING	STATE WITH-HOLDING	LIST OTHER	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
												$ Base Rate	1. $ 2. $ 3. $								
												$ Cash Fringe	4. $ 5. $ 6. $								
												$ Base Rate	1. $ 2. $ 3. $								
												$ Cash Fringe	4. $ 5. $ 6. $								
												$ Base Rate	1. $ 2. $ 3. $								
												$ Cash Fringe	4. $ 5. $ 6. $								
												$ Base Rate	1. $ 2. $ 3. $								
												$ Cash Fringe	4. $ 5. $ 6. $								

12/9/2013
WWS-CP1

*IF REQUIRED

*SEE REVERSE SIDE

PAGE NUMBER _____OF

OSHA 10 ~ATTACH CARD TO 1ST CERTIFIED PAYROLL

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:

1) Medical or hospital care _____ 4) Disability_____

2) Pension or retirement _____ 5) Vacation, holiday_____

3) Life Insurance _____ 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of _____,

I, _____of _____, (hereafter known as

Employer) in my capacity as _____ (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

a) The records submitted are true and accurate;

b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;

c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);

d) Each such employee of the Employer is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;

e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and

f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such employee's name first appears.

_____	_____	_____
(Signature)	(Title)	Submitted on (Date)

Section B: Applies to CONNDOT Projects ONLY

That pursuant to CONNDOT contract requirements for reporting purposes only, all employees listed under Section B who performed work on this project are not covered under the prevailing wage requirements defined in Connecticut General Statutes Section 31-53.

_____	_____	_____
(Signature)	(Title)	Submitted on (Date)

Note: CTDOL will assume all hours worked were performed under Section A unless clearly delineated as Section B WWS-CP1 as such. Should an employee perform work under both Section A and Section B, the hours worked and wages paid must be segregated for reporting purposes.

*****THIS IS A PUBLIC DOCUMENT*****

*****DO NOT INCLUDE SOCIAL SECURITY NUMBERS*****

Weekly Payroll Certification For Public Works Projects (Continued)

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

Week-Ending Date:
Contractor or Subcontractor Business Name:

WEEKLY PAYROLL

PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE S / M / T / W / TH / F / S HOURS WORKED EACH DAY	Total ST Hours Total O/T Hours	BASE HOURLY RATE TOTAL FRINGE BENEFIT PLAN CASH	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS FICA / FEDERAL WITH-HOLDING / STATE WITH-HOLDING / LIST OTHER	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				

*IF REQUIRED

NOTICE: THIS PAGE MUST BE ACCOMPANIED BY A COVER PAGE (FORM # WWS-CP1)

PARTIAL ROOF REPLACEMENT

JOHN F. KENNEDY HIGH SCHOOL
422 HIGHLAND AVE
WATERBURY, CT 06708
STATE PROJECT #151-0307 RR

S/P+A PROJECT #22.059

Drawing Number	Drawing Name
	COVER SHEET
C1	CODE INFORMATION
A1	OVERALL ROOF PLAN
A2	ROOF PLAN PART “1”
A3	ROOF PLAN PART “2”
A4	ROOF DETAILS

END OF DRAWING LIST

SECTION 011000 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 PROJECT DESCRIPTION

A. The Work of the Project is defined by the Contract Documents and consists of a partial roof replacement of an existing building.

B. The Work generally includes, but is not necessarily limited to the following major elements:

1. Removal of existing membrane roofing, insulation, cant strips and tapered edges, and metal flashings.
2. Removal and replacement of existing masonry veneer where necessary to accommodate flashing.
3. Removal and replacement of existing metal ladders, roof hatch, and other roof accessories.
4. Removal and replacement of deteriorated roof decking and wood blocking.
5. Removal and replacement of existing unit skylights.
6. Removal and replacement of existing roof drains and related piping and insulation.
7. Provision and installation of modified bituminous membranes, underlayment, and flat and tapered insulations.
8. Provision and installation of new flashings, caps, fasciae, and other trim metal work as detailed and specified, including new scuppers.
9. Offsite disposal of all removed materials.

1.3 CONTRACTOR USE OF PREMISES

A. General: Limit use of the premises to construction activities in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

B. Confine operations to as small work areas and accessways as possible. As much as possible and without damage to the finishes, doors, and related building systems, access the project area via the service doors designated by Owner.

C. Keep driveways and entrances serving the premises clear and available to the Owner and emergency vehicles at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.

D. Maintain existing egress patterns, exit doors, and means of egress during construction, which will include the provision of temporary walkways, sidewalks, or other means necessary to provide adequate life safety for the building occupants, particularly at exitways which must continue to be open and serviceable while adjacent construction activity occurs.

E. Use of the Existing Building: Maintain the existing building in a weathertight condition throughout the construction period. Repair damage caused by construction operations. Take

all precautions necessary to protect the building and its occupants during the construction period.

1. Contractor is responsible to secure project area/site from intrusions during unoccupied (after hours) period of time. Any temporary doors and /or window coverings that may be necessary to complete repairs are the Contractors responsibility to furnish and install as part of the project scope.

1.4 OWNER OCCUPANCY

A. Full Owner Occupancy: The Owner's administrative and maintenance staff will occupy the site and existing building during the entire construction period, with children on site during the school year. Cooperate with the Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with the Owner's operations. Pre-schedule construction operations with the Owner for areas that must be evacuated for extended periods, giving the Owner the opportunity to relocate administrative or educational operations to non-affected areas.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

1.5 SPECIAL REQUIREMENTS

A. The Contractor shall insure that all work performed is done so in a safe manner and that all his/her employees shall adhere to all applicable safety procedures and practices at all times. There may be children and staff in the vicinity of the work area during normal working hours. The Contractor shall be aware at all times that additional safety considerations should be taken. Particular care shall be taken by the Contractor, Subcontractors and all those in their employ, that all tools, equipment, ladders, etc. are never left unsupervised.

B. Meaningful Instruction: Meaningful instruction (as determined by the Owner) must be facilitated and possible within the building at all times. This requirement may limit the Contractor's demolition and construction operations as the distraction represented by hammering, material movement, etc. may disrupt classes. No down time or mobilization charges will be permitted should the meaningful instruction requirement suspend the Contractor's operations for any length of time.

C. Testing: During the school year, Smarter Balanced Assessment Consortium may be administered to portions of the student population, which requires absolute concentration on the part of the students. The Owner may prohibit operations during the administration of these assessments. Cooperate with the Owner to determine the schedule, locations of the testing and where operations may proceed with disrupting classroom or roofing operations.

D. Under no circumstances shall the buildings' occupants be subjected to excessive construction noise or vibrations, nor shall they be subject to fumes, odors, or other deleterious effects of the operation. Should material delivery, demolition or construction operations, inclement weather or related schedule conditions produce this situation (as determined by the Owner), the Contractor shall be required to suspend operations that produce the offending effects until such time as the building is not occupied, or as approved by the Owner.

E. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, and other controlled substances inside the building or on the grounds is not permitted. Strict adherence to the regulations will be enforced for the entire duration of the construction.

F. There will be absolutely **no** fraternizing with the students by construction personnel. Anyone caught doing so will be required to leave the jobsite and will not be permitted to return. Such dismissal shall not give the contractor grounds for default on any other contract requirements, including the construction schedule.

G. Site Security – Identification Badges

1. The Contractor shall provide a list of all contact persons. The list shall include each trade, name of Contractor, contact person(s), phone numbers, fax numbers, Federal Employer Identification Number (FEIN), social security number if FEIN is not available, and Connecticut Tax Registration number.
2. Prior to the start of work all Contractor and Sub-Contactor personnel assigned to perform work shall be required to fill out and submit to a background check at a cost provided by the Contractor. All information shall be submitted to the City of Waterbury. Information for background check includes the following:

    a. Identity Verification
    b. Criminal Background
    c. Additional checks as deemed warranted.

3. Security badges will be worn by all project personnel during construction activities. The Contractor will provide badges at no cost to the Owner. The Contractor will be responsible for monitoring the display of badges, including those of the personnel of all subcontractors and visitors to the project site.

H. Public Health Emergency:

1. The Contractor shall anticipate and incorporate in their Bids all potential costs related to a public health emergency such as the COVID-19/Coronavirus Pandemic, including rules, regulations, and recommendations issued by public authorities. The potential costs may include, but are not limited to, costs related to social distancing, manpower levels, project scheduling, construction coordination, material/product supplies and delivery delays, material escalation costs, increased subcontractor/supplier costs, loss of productivity and inefficiency costs, extended general conditions costs, and any other potential costs.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.

1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to the Contractor. If necessary, additional requirements will be issued by Change Order.

B. Types of allowances include the following:

1. Quantity allowances.

C. Related Sections:

1. Section 012200 "Unit Prices" for procedures for using unit prices.
2. Divisions 02 through 49 Sections for items of Work covered by allowances.

1.3 SELECTION AND PURCHASE

A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.

B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

C. Purchase products and systems selected by Architect from the designated supplier.

1.4 SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

C. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.

D. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 COORDINATION

A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.6 QUANTITY/LUMP-SUM ALLOWANCES

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight, and delivery to Project site.

B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner under allowance shall be included as part of the Contract Sum and not part of the allowance.

C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.7 ADJUSTMENT OF ALLOWANCES

A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.

1. Include installation costs in purchase amount only where indicated as part of the allowance.
2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances.
4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.

1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.
2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

A. Allowance #1: Metal Roof Deck Replacement: Include in the Base Bid an allowance to replace 6,000 square feet of metal decking that may be deteriorated under the existing roofs. Should metal decking be encountered that at the Architect's direction requires removal, the Contractor shall do so, deducting the amount of the affected installation(s) from the allowance amount. Removal and replacement, to match existing, shall include all fasteners, accessories, removal, and disposal (including all manpower, tools, and materials). Refer to Section 053100 “Steel Decking” for additional information.

END OF SECTION 012100

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for unit prices.

B. Related Sections:

1. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.

1.3 DEFINITIONS

A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. A list of unit prices is included in the Bid Form.

END OF SECTION 012200

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

C. Execute accepted alternates under the same conditions as other work of the Contract. No extensions of time shall be granted for accepted alternates.

D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. **DEDUCT ALTERNATE #1: Twenty (20) Year Warranty:** Deduct from the Base Bid the cost associated from reducing the specified warranty by ten (10) years for a total of twenty (20) on the roofing membrane system indicated in Section 075216 “Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing”.

END OF SECTION 012300

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for substitutions.

B. Related Sections:

1. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.
2. Divisions 02 through 49 Sections for specific requirements and limitations for substitutions.

1.3 DEFINITIONS

A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 SUBMITTALS

A. Substitution Requests: Submit three (3) copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Substitution Request Form: Use **CSI Form 1.5C**, **13.1A**, or comparable form.
2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:

a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
c. Detailed, SIDE-BY-SIDE comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
e. Samples, where applicable or requested.
f. Certificates and qualification data, where applicable or requested.
g. List of similar installations for completed projects with project names and addresses and names and addresses of Architects and Owners.
h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
k. Cost information, including a proposal of change, if any, in the Contract Sum.
l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven (7) days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.

a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

A. Coordination: Modify or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

A. Procurement Substitution Request: Submit to Architect seven (7) days prior to date of bid opening.

B. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than fifteen (15) days prior to time required for preparation and review of related submittals.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
b. Substitution request is fully documented and properly submitted.
c. Requested substitution will not adversely affect Contractor's construction schedule.
d. Requested substitution has received necessary approvals of authorities having jurisdiction.
e. Requested substitution is compatible with other portions of the Work.
f. Requested substitution has been coordinated with other portions of the Work.
g. Requested substitution provides specified warranty.
h. If requested substitution involves more than one (1) contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

C. Substitutions for Convenience: Architect will consider requests for substitution if received within sixty (60) days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
b. Requested substitution does not require extensive revisions to the Contract Documents.
c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
d. Substitution request is fully documented and properly submitted.
e. Requested substitution will not adversely affect Contractor's construction schedule.
f. Requested substitution has received necessary approvals of authorities having jurisdiction.
g. Requested substitution is compatible with other portions of the Work.
h. Requested substitution has been coordinated with other portions of the Work.
i. Requested substitution provides specified warranty.
j. If requested substitution involves more than one (1) contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

B. Related Sections:

1. Section 016000 "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 MINOR CHANGES IN THE WORK

A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions."

1.4 PROPOSAL REQUESTS

A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.

1. Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
2. Within time specified in Proposal Request or twenty (20) days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.

    a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    c. Include costs of labor and supervision directly attributable to the change.
    d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
    e. Quotation Form: Use forms acceptable to Architect.

B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to the Architect.

1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
7. Proposal Request Form: Use form acceptable to Architect.

1.5 ADMINISTRATIVE CHANGE ORDERS

A. Allowance Adjustment: See Section 012100 "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.

B. Unit Price Adjustment: Refer to Section 012200 "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit price work.

1.6 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

1.7 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.

B. Related Sections:

1. Section 012200 "Unit Prices" for administrative requirements governing the use of unit prices.
2. Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
3. Section 013200 "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.
4. Section 013300 "Submittal Procedures" for administrative requirements governing the preparation and submittal of the submittal schedule.

1.3 SCHEDULE OF VALUES

A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.

1. Correlate line items in the schedule of values with other required administrative forms and schedules, including the following:

a. Application for Payment forms with continuation sheets.
b. Submittal schedule.
c. Items required to be indicated as separate activities in Contractor's construction schedule.

2. Submit the schedule of values to Architect at earliest possible date but no later than seven (7) days before the date scheduled for submittal of initial Applications for Payment.

B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one (1) line item for each Specification Section.

1. Identification: Include the following Project identification on the schedule of values:

a. Project name and location.
b. Name of Architect.
c. Architect's project number.
d. Contractor's name and address.
e. Date of submittal.

2. Arrange schedule of values consistent with format of AIA Document G703.

3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five percent (5%) of Contract Sum.
4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.

    a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.

6. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
7. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
8. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.

    a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.

9. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.4 APPLICATIONS FOR PAYMENT

A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.

    1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.

B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.

C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.

D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.

    1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
    2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
    3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.

4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
5. Include updated and approved Contractor's construction schedule, potential Change Order Log and Product Submittal Log.

E. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.

1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
3. Provide summary documentation for stored materials indicating the following:

    a. Materials previously stored and included in previous Applications for Payment.
    b. Work completed for this Application utilizing previously stored materials.
    c. Additional materials stored with this Application.
    d. Total materials remaining stored, including materials with this Application.

F. Transmittal: Submit three (3) signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One (1) copy shall include waivers of lien and similar attachments if required.

1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

G. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.

1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
2. When an application shows completion of an item, submit conditional final or full waivers.
3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
5. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.

H. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:

1. List of subcontractors.
2. Schedule of values.
3. Contractor's construction schedule (preliminary if not final).
4. Products list (preliminary if not final).
5. Schedule of unit prices.
6. Submittal schedule (preliminary if not final).
7. List of Contractor's staff assignments.
8. List of Contractor's principal consultants.
9. Copies of building permits.

10. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
11. Initial progress report.
12. Report of preconstruction conference.
13. Certificates of insurance and insurance policies.
14. Performance and payment bonds.
15. Data needed to acquire Owner's insurance.

I. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing one hundred percent (100%) completion for portion of the Work claimed as substantially complete.

1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

J. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

1. Evidence of completion of Project closeout requirements.
2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
3. Updated final statement, accounting for final changes to the Contract Sum.
4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
6. AIA Document G707, "Consent of Surety to Final Payment."
7. Evidence that claims have been settled.
8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:

1. General project coordination procedures.
2. Administrative and supervisory personnel.
3. Requests for Information (RFIs).
4. Project meetings.

B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.

C. Related Sections:

1. Section 013200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
2. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
3. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

A. RFI: Request from Owner, Architect, or Contractor seeking information from each other during construction.

1.4 COORDINATION

A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one (1) part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
3. Make adequate provisions to accommodate items scheduled for later installation.

B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

1. Prepare similar memoranda for Owner and separate Contractors if coordination of their Work is required.

C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of Contractor's construction schedule.
2. Preparation of the schedule of values.
3. Installation and removal of temporary facilities and controls.
4. Delivery and processing of submittals.
5. Progress meetings.
6. Pre-installation conferences.
7. Project closeout activities.

D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

1.5 KEY PERSONNEL

A. Key Personnel Names: Within fifteen (15) days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and email addresses. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.

1. Post copies of list in project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

1.6 REQUESTS FOR INFORMATION (RFIs)

A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.

1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:

1. Project name.
2. Project number.
3. Date.
4. Name of Contractor.
5. Name of Architect.
6. RFI number, numbered sequentially.
7. RFI subject.

8. Specification Section number and title and related paragraphs, as appropriate.
9. Drawing number and detail references, as appropriate.
10. Field dimensions and conditions, as appropriate.
11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
12. Contractor's signature.
13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.

    a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.

C. RFI Forms: AIA Document G716 or comparable form.

D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven (7) working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.

1. The following RFIs will be returned without action:

    a. Requests for approval of submittals.
    b. Requests for approval of substitutions.
    c. Requests for coordination information already indicated in the Contract Documents.
    d. Requests for adjustments in the Contract Time or the Contract Sum.
    e. Requests for interpretation of Architect's actions on submittals.
    f. Incomplete RFIs or inaccurately prepared RFIs.

2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."

    a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within ten (10) days of receipt of the RFI response.

E. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven (7) days if Contractor disagrees with response.

F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:

1. Project name.
2. Name and address of Contractor.
3. Name and address of Architect.
4. RFI number including RFIs that were dropped and not submitted.
5. RFI description.
6. Date the RFI was submitted.
7. Date Architect's response was received.
8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

1.7 PROJECT MEETINGS

A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.

1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
3. Minutes: General Contractor or Construction Manager is responsible for recording significant discussions and agreements achieved. General Contractor or Construction Manager is also responsible for distributing the meeting minutes to everyone concerned including Owner and Architect, within three (3) days of the meeting.

B. Preconstruction/Preinstallation Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than fifteen (15) days after execution of the Agreement.

1. Conduct the conference to review responsibilities and personnel assignments.
2. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Discuss items of significance that could affect progress, including the following:

a. Tentative construction schedule.
b. Phasing.
c. Critical work sequencing and long-lead items.
d. Designation of key personnel and their duties.
e. Lines of communications.
f. Procedures for processing field decisions and Change Orders.
g. Procedures for RFIs.
h. Procedures for testing and inspecting.
i. Procedures for processing Applications for Payment.
j. Distribution of the Contract Documents.
k. Submittal procedures.
l. Preparation of record documents.
m. Work restrictions.
n. Working hours.
o. Owner's occupancy requirements.
p. Responsibility for temporary facilities and controls.
q. Procedures for moisture and mold control.
r. Procedures for disruptions and shutdowns.
s. Parking availability.
t. Office, work, and storage areas.
u. Equipment deliveries and priorities.
v. First aid.
w. Security.
x. Progress cleaning.
y. Refer to Section 070150.19 “Preparation for Reroofing” for additional items.

4. Minutes: General Contractor or Construction Manager is responsible for recording and distributing meeting minutes.

C. Progress Meetings: Conduct progress meetings at biweekly intervals.

1. Coordinate dates of meetings with preparation of payment requests.
2. Attendees: In addition to representatives of Owner and Architect, each Contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

    a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

        1) Review schedule for next period.

    b. Review present and future needs of each entity present, including the following:

        1) Interface requirements.
        2) Sequence of operations.
        3) Status of submittals.
        4) Deliveries.
        5) Off-site fabrication.
        6) Access.
        7) Site utilization.
        8) Temporary facilities and controls.
        9) Progress cleaning.
        10) Quality and work standards.
        11) Status of correction of deficient items.
        12) Field observations.
        13) Status of RFIs.
        14) Status of proposal requests.
        15) Pending changes.
        16) Status of Change Orders.
        17) Pending claims and disputes.
        18) Documentation of information for payment requests.

4. Minutes: General Contractor or Construction Manager is responsible for recording and distributing meeting minutes.

    a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:

1. Contractor's construction schedule.
2. Daily construction reports.
3. Material location reports.
4. Field condition reports.

B. Related Sections:

1. Section 013300 "Submittal Procedures" for submitting schedules and reports.
2. Section 014000 "Quality Requirements" for submitting a schedule of tests and inspections.

1.3 DEFINITIONS

A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.

1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
2. Predecessor Activity: An activity that precedes another activity in the network.
3. Successor Activity: An activity that follows another activity in the network.

B. Cost Loading: The allocation of the schedule of values for the completion of an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum, unless otherwise approved by Architect.

C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.

D. Event: The starting or ending point of an activity.

E. Float: The measure of leeway in starting and completing an activity.

1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.

3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

F. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.4 INFORMATIONAL SUBMITTALS

A. Format for Submittals: Submit required submittals in the following format:

1. PDF electronic file.

B. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.

1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.

C. Daily Construction Reports: Submit at weekly intervals.

D. Material Location Reports: Submit at weekly intervals.

E. Field Condition Reports: Submit at time of discovery of differing conditions.

1.5 QUALITY ASSURANCE

A. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to the Contractor's construction schedule, including, but not limited to, the following:

1. Review software limitations and content and format for reports.
2. Discuss constraints, including phasing, work stages and area separations.
3. Review delivery dates for Owner-furnished products.
4. Review schedule for work of Owner's separate contracts.
5. Review time required for review of submittals and resubmittals.
6. Review requirements for tests and inspections by independent testing and inspecting agencies.
7. Review time required for completion and startup procedures.
8. Review and finalize list of construction activities to be included in schedule.
9. Review submittal requirements and procedures.
10. Review procedures for updating schedule.

1.6 COORDINATION

A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.

B. Coordinate Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.

1. Secure time commitments for performing critical elements of the Work from entities involved.

2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Substantial Completion.

1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.

B. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:

1. Activity Duration: Define activities so no activity is longer than twenty (20) days, unless specifically allowed by Architect.
2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than sixty (60) days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
4. Substantial Completion: Indicate completion in advance of date established for Substantial Completion and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
5. Punch List and Final Completion: Include not more than thirty (30) days for punch list and final completion.

C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule and show how the sequence of the Work is affected.

1. Phasing: Arrange list of activities on schedule by phase.
2. Work Restrictions: Show the effect of the following items on the schedule:

    a. Coordination with existing construction.
    b. Uninterruptible services.
    c. Use of premises restrictions.
    d. Provisions for future construction.
    e. Seasonal variations.
    f. Environmental control.

3. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:

    a. Subcontract awards.
    b. Submittals.
    c. Purchases.
    d. Fabrication.
    e. Sample testing.
    f. Deliveries.
    g. Installation.

h. Tests and inspections.
i. Adjusting.

4. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:

a. Substantial Completion.

D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion**.**

E. Cost Correlation: At the head of schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of the Work performed as of dates used for preparation of payment requests.

1. Refer to Section 012900 "Payment Procedures" for cost reporting and payment procedures.

F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:

1. Unresolved issues.
2. Unanswered RFIs.
3. Rejected or unreturned submittals.
4. Notations on returned submittals.

G. Recovery Schedule: When periodic update indicates the Work is fourteen (14) or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.

H. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's construction schedule within seven (7) days of date established for the Notice to Proceed.

B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.

1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in ten percent (10%) increments within time bar.

2.3 REPORTS

A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:

1. List of subcontractors at Project site.
2. List of separate contractors at Project site.

3. Approximate count of personnel at Project site.
4. Equipment at Project site.
5. Material deliveries.
6. High and low temperatures and general weather conditions, including presence of rain or snow.
7. Accidents.
8. Meetings and significant decisions.
9. Stoppages, delays, shortages, and losses.
10. Meter readings and similar recordings.
11. Emergency procedures.
12. Orders and requests of authorities having jurisdiction.
13. Change Orders received and implemented.
14. Construction Change Directives received and implemented.
15. Services connected and disconnected.
16. Equipment or system tests and startups.
17. Partial completions and occupancies.
18. Substantial Completions authorized.

B. Material Location Reports: At weekly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.

C. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one (1) week before each regularly scheduled progress meeting.

1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
3. As the Work progresses, indicate final completion percentage for each activity.

B. Distribution: Distribute copies of approved schedule to Architect, Construction Administrator, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.

1. Post copies in Project meeting rooms and temporary field offices.
2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200

SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for the following:

1. Periodic construction photographs.

B. Related Sections:

1. Section 013300 "Submittal Procedures" for submitting photographic documentation.
2. Section 017700 "Closeout Procedures" for submitting photographic documentation as project record documents at Project closeout.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA

A. Digital Images: Provide images in JPG format, produced by a digital camera with minimum sensor size of eight (8) megapixels, and at an image resolution of not less than 1600 by 1200 pixels and 400 dpi.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS

A. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.

1. Maintain key plan with each set of construction photographs that identifies each photographic location.

B. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.

1. Date and Time: Include date and time in file name for each image.
2. Field Office Images: Maintain one (1) set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to Architect.

C. Periodic Construction Photographs: Take eighteen to twenty (18-20) photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.

D. Additional Photographs: Architect may request photographs in addition to periodic photographs specified.

1. In emergency situations, take additional photographs within twenty-four (24) hours of request.
2. Circumstances that could require additional photographs include, but are not limited to, the following:

    a. Immediate follow-up when on-site events result in construction damage or losses.
    b. Substantial Completion of a major phase or component of the Work.

END OF SECTION 013233

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

B. Related Sections:

1. Section 012900 "Payment Procedures" for submitting Applications for Payment and the schedule of values.
2. Section 013200 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
3. Section 017823 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
4. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

1.3 DEFINITIONS

A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as action submittals.

B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as informational submittals.

C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.

D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS

A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the Architect and additional time for handling and reviewing submittals required by those corrections.

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
2. Submit concurrently with Contractor's construction schedule. Include submittals required during the first sixty (60) days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
3. Format: Arrange the following information in a tabular format:

    a. Scheduled date for first submittal.
    b. Specification Section number and title.
    c. Submittal Category: Action, informational.
    d. Name of subcontractor.
    e. Description of the Work covered.
    f. Scheduled date for Architect's final release or approval.
    g. Scheduled dates for purchasing.
    h. Scheduled dates for installation.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

A. Architect's Digital Data Files: Electronic copies of CAD Drawings of the Contract Drawings will **not** be provided by Architect for Contractor's use in preparing submittals unless requested and Architect's user agreement properly completed.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

    a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow seven (7) days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
2. Resubmittal Review: Allow five (5) days for review of each resubmittal.
3. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow seven (7) days for initial review of each submittal.

D. Identification and Information: Place a permanent label or title block on each paper copy submittal item for identification.

1. Indicate name of firm or entity that prepared each submittal on label or title block.
2. Provide a space on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
3. Include the following information for processing and recording action taken:

    a. Project name.
    b. Date.
    c. Name of Architect.
    d. Name of Contractor.
    e. Name of subcontractor.
    f. Name of supplier.
    g. Name of manufacturer.
    h. Submittal number or other unique identifier, including revision identifier.

        1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).

    i. Number and title of appropriate Specification Section.
    j. Drawing number and detail references, as appropriate.
    k. Location(s) where product is to be installed, as appropriate.
    l. Other necessary identification.

E. Identification and Information: Identify and incorporate information in each electronic submittal file as follows:

1. Assemble complete submittal package into a single indexed file with links enabling navigation to each item.
2. Name file with submittal number or other unique identifier, including revision identifier.

    a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).

3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
4. Include the following information on an inserted cover sheet:

    a. Project name.
    b. Date.
    c. Name and address of Architect.
    d. Name of Contractor.
    e. Name of firm or entity that prepared submittal.
    f. Name of subcontractor.
    g. Name of supplier.
    h. Name of manufacturer.
    i. Number and title of appropriate Specification Section.
    j. Drawing number and detail references, as appropriate.
    k. Location(s) where product is to be installed, as appropriate.
    l. Related physical samples submitted directly.
    m. Other necessary identification.

5. Include the following information as keywords in the electronic file metadata:

a. Project name.
b. Number and title of appropriate Specification Section.
c. Manufacturer name.
d. Product name.

F. Options: Identify options requiring selection by the Architect.

G. Deviations: Identify deviations from the Contract Documents on submittals.

H. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.

I. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review received from sources other than Contractor.

1. Transmittal Form: Provide locations on form for the following information:

a. Project name.
b. Date.
c. Destination (To:).
d. Source (From:).
e. Names of subcontractor, manufacturer, and supplier.
f. Category and type of submittal.
g. Submittal purpose and description.
h. Specification Section number and title.
i. Indication of full or partial submittal.
j. Drawing number and detail references, as appropriate.
k. Transmittal number**,** numbered consecutively.
l. Submittal and transmittal distribution record.
m. Remarks.
n. Signature of transmitter.

2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

J. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

1. Note date and content of previous submittal.
2. Note date and content of revision in label or title block and clearly indicate extent of revision.
3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.

K. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

L. Use for Construction: Use only final submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

1. Submit electronic submittals via email as PDF electronic files.

a. Architect will return annotated file. Annotate and retain one (1) copy of file as an electronic Project record document file.

2. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 017700 "Closeout Procedures."
3. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
b. Provide a notarized statement on original paper copy certificates and certifications where indicated.

4. Test and Inspection Reports Submittals: Comply with requirements specified in Section 014000 "Quality Requirements."

B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:

a. Manufacturer's catalog cuts.
b. Manufacturer's product specifications.
c. Standard color charts.
d. Statement of compliance with specified referenced standards.
e. Testing by recognized testing agency.
f. Application of testing agency labels and seals.
g. Notation of coordination requirements.
h. Availability and delivery time information.

4. Submit Product Data before or concurrent with Samples.

C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:

a. Identification of products.
b. Schedules.

c. Compliance with specified standards.
d. Notation of coordination requirements.
e. Notation of dimensions established by field measurement.
f. Relationship and attachment to adjoining construction clearly indicated.
g. Seal and signature of professional engineer if specified.

2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8½ by 11 inches but no larger than 30 by 42 inches.

D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.

1. Transmit Samples that contain multiple, related components such as accessories together in one (1) submittal package.
2. Identification: Attach label on unexposed side of Samples that includes the following:

a. Generic description of Sample.
b. Product name and name of manufacturer.
c. Sample source.
d. Number and title of applicable Specification Section.

3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

1. Type of product. Include unique identifier for each product indicated in the Contract Documents.
2. Manufacturer and product name, and model number if applicable.
3. Number and name of room or space.
4. Location within room or space.

F. Contractor's Construction Schedule: Comply with requirements specified in Section 013200 "Construction Progress Documentation."

G. Application for Payment: Comply with requirements specified in Section 012900 "Payment Procedures."

H. Schedule of Values: Comply with requirements specified in Section 012900 "Payment Procedures."

I. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design**.** Include the following information in tabular form:

1. Name, address, and telephone number of entity performing subcontract or supplying products.
2. Number and title of related Specification Section(s) covered by subcontract.
3. Drawing number and detail references, as appropriate, covered by subcontract.

J. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of Architects and Owners, and other information specified.

K. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on American Welding Society (AWS) forms. Include names of firms and personnel certified.

L. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.

M. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.

N. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

O. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.

P. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

Q. Product Test Reports: Submit written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

R. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:

1. Name of evaluation organization.
2. Date of evaluation.
3. Time period when report is in effect.
4. Product and manufacturers' names.
5. Description of product.
6. Test procedures and results.
7. Limitations of use.

S. Schedule of Tests and Inspections: Comply with requirements specified in Section 014000 "Quality Requirements."

T. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

U. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

V. Field Test Reports: Submit reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

W. Maintenance Data: Comply with requirements specified in Section 017823 "Operation and Maintenance Data."

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.

B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Section 017700 "Closeout Procedures."

C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.

B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.

C. Informational Submittals: Architect will review each submittal and will not return it or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.

D. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.

E. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.

F. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 013300

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1. Specific quality-assurance and -control requirements for individual work results are specified in their respective Specification Sections. Requirements in individual Sections may also cover production of standard products.
2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
3. Requirements for Contractor to provide quality-assurance and quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

C. Related Sections:

1. Divisions 02 through 49 Sections for specific test and inspection requirements.

1.3 DEFINITIONS

A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.

B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor’s quality-control services do not include contract enforcement activities performed by Architect.

C. Preconstruction Testing: Tests and inspections performed specifically for the Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.

D. Product Tests: Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.

E. Source Quality-Control Tests: Tests and inspections that are performed at the source; for example, plant, mill, factory, or shop.

F. Field Quality-Control Tests: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

H. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.

1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade or trades.

I. Experienced: When used with an entity or individual, "experienced" unless otherwise further described means having successfully completed a minimum of five (5) previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 CONFLICTING REQUIREMENTS

A. Conflicting Standards and Other Requirements: If compliance with two (2) or more standards or requirements are specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for direction before proceeding.

B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.5 INFORMATIONAL SUBMITTALS

A. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility submitted to authorities having jurisdiction before starting work on the following systems.

1. Seismic-force-resisting system, designated seismic system, or component listed in the Statement of Special Inspections.
2. Main wind-force-resisting system or a wind-resisting component listed in the Statement of Special Inspections.

B. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

C. Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1. Specification Section number and title.

2. Entity responsible for performing tests and inspections.
3. Description of test and inspection.
4. Identification of applicable standards.
5. Identification of test and inspection methods.
6. Number of tests and inspections required.
7. Time schedule or time span for tests and inspections.
8. Requirements for obtaining samples.
9. Unique characteristics of each quality-control service.

D. Reports: Prepare and submit certified written reports and documents as specified.

E. Permits, Licenses, and Certificates: For Owner's record, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents established for compliance with standards and regulations bearing on performance of the Work.

1.6 REPORTS AND DOCUMENTS

A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of technical representative making report.
2. Statement on condition of substrates and their acceptability for installation of product.
3. Statement that products at Project site comply with requirements.
4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
6. Statement whether conditions, products, and installation will affect warranty.
7. Other required items indicated in individual Specification Sections.

C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of factory-authorized service representative making report.
2. Statement that equipment complies with requirements.
3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
4. Statement whether conditions, products, and installation will affect warranty.
5. Other required items indicated in individual Specification Sections.

1.7 QUALITY ASSURANCE

A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.

B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.

C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

D. Installer Qualifications: A firm or individual experienced in installing, erecting, applying, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.

F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.

1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.

G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.

H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

1.8 QUALITY CONTROL

A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.

1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
3. Costs for testing that is cancelled will be charged to the Contractor, and the Contract Sum will be adjusted by Change Order.

B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify that the Work complies with requirements.

1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
2. Engage a qualified testing agency to perform these quality-control services.

    a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.

3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."

D. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.

E. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.

F. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.

2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
6. Do not perform any duties of Contractor.

G. Associated Contractor Services: Cooperate with agencies and representatives performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspection. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Delivery of samples to testing agencies.
6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
7. Security and protection for samples and for testing and inspecting equipment at Project site.

H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.9 SPECIAL TESTS AND INSPECTIONS

A. Special Tests and Inspections: Conducted by a qualified testing agency as required by authorities having jurisdiction, as indicated in individual Specification Sections, and as follows:

1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect, Contractor and to authorities having jurisdiction.
4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
6. Retesting and reinspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

A. Prepare a record of tests and inspections. Include the following:

1. Date test or inspection was conducted.
2. Description of the Work tested or inspected.
3. Date test or inspection results were transmitted to Architect.
4. Identification of testing agency or special inspector conducting test or inspection.

B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.

1. Submit log at Project closeout as part of Project Record Documents.

3.2 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

SECTION 014200 - REFERENCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 DEFINITIONS

A. General: Basic Contract definitions are included in the Conditions of the Contract.

B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.

C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."

D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."

E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.

F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.

G. "Install": Unload, temporarily store, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, and similar operations at Project site.

H. "Provide": Furnish and install, complete and ready for the intended use.

I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.3 INDUSTRY STANDARDS

A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.

1. For standards referenced by applicable building codes, comply with dates of standards as listed in building codes.

C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.4 ABBREVIATIONS AND ACRONYMS

A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale's "Encyclopedia of Associations: National Organizations of the U.S." or in Columbia Books' "National Trade & Professional Associations of the United States."

1. AABC - Associated Air Balance Council; www.aabc.com.
2. AAMA - American Architectural Manufacturers Association; www.aamanet.org.
3. AAPFCO - Association of American Plant Food Control Officials; www.aapfco.org.
4. AASHTO - American Association of State Highway and Transportation Officials; www.transportation.org.
5. AATCC - American Association of Textile Chemists and Colorists; www.aatcc.org.
6. ABMA - American Bearing Manufacturers Association; www.americanbearings.org.
7. ABMA - American Boiler Manufacturers Association; www.abma.com.
8. ACI - American Concrete Institute; (Formerly: ACI International); www.concrete.org.
9. ACPA - American Concrete Pipe Association; www.concrete-pipe.org.
10. AEIC - Association of Edison Illuminating Companies, Inc. (The); www.aeic.org.
11. AF&PA - American Forest & Paper Association; www.afandpa.org.
12. AGA - American Gas Association; www.aga.org.
13. AHAM - Association of Home Appliance Manufacturers; www.aham.org.
14. AHRI - Air-Conditioning, Heating, and Refrigeration Institute (The); www.ahrinet.org.
15. AI - Asphalt Institute; www.asphaltinstitute.org.
16. AIA - American Institute of Architects (The); www.aia.org.
17. AISC - American Institute of Steel Construction; www.aisc.org.
18. AISI - American Iron and Steel Institute; www.steel.org.
19. AITC - American Institute of Timber Construction; www.aitc-glulam.org.
20. AMCA - Air Movement and Control Association International, Inc.; www.amca.org.
21. ANSI - American National Standards Institute; www.ansi.org.
22. AOSA - Association of Official Seed Analysts, Inc.; www.aosaseed.com.
23. APA - APA - The Engineered Wood Association; www.apawood.org.
24. APA - Architectural Precast Association; www.archprecast.org.
25. API - American Petroleum Institute; www.api.org.
26. ARI - Air-Conditioning & Refrigeration Institute; (See AHRI).
27. ARI - American Refrigeration Institute; (See AHRI).
28. ARMA - Asphalt Roofing Manufacturers Association; www.asphaltroofing.org.
29. ASCE - American Society of Civil Engineers; www.asce.org.
30. ASCE/SEI - American Society of Civil Engineers/Structural Engineering Institute; (See ASCE).
31. ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning Engineers; www.ashrae.org.
32. ASME - ASME International; (American Society of Mechanical Engineers); www.asme.org.
33. ASSE - American Society of Sanitary Engineering; www.asse-plumbing.org.
34. ASSP - American Society of Safety Professionals (The); www.assp.org.
35. ASTM - ASTM International; www.astm.org.
36. ATIS - Alliance for Telecommunications Industry Solutions; www.atis.org.
37. AVIXA - Audiovisual and Integrated Experience Association; (Formerly: Infocomm International); www.soundandcommunications.com.

38. AWEA - American Wind Energy Association; www.awea.org.
39. AWI - Architectural Woodwork Institute; www.awinet.org.
40. AWMAC - Architectural Woodwork Manufacturers Association of Canada; www.awmac.com.
41. AWPA - American Wood Protection Association; www.awpa.com.
42. AWS - American Welding Society; www.aws.org.
43. AWWA - American Water Works Association; www.awwa.org.
44. BHMA - Builders Hardware Manufacturers Association; www.buildershardware.com.
45. BIA - Brick Industry Association (The); www.gobrick.com.
46. BICSI - BICSI, Inc.; www.bicsi.org.
47. BIFMA - BIFMA International; (Business and Institutional Furniture Manufacturer's Association); www.bifma.org.
48. BISSC - Baking Industry Sanitation Standards Committee; www.bissc.org.
49. BWF - Badminton World Federation; (Formerly: International Badminton Federation); www.bissc.org.
50. CDA - Copper Development Association; www.copper.org.
51. CE - Conformite Europeenne; www.ec.europa.eu/growth/single-market/ce-marking.
52. CEA - Canadian Electricity Association; www.electricity.ca.
53. CFFA - Chemical Fabrics and Film Association, Inc.; www.chemicalfabricsandfilm.com.
54. CFSEI - Cold-Formed Steel Engineers Institute; www.cfsei.org.
55. CGA - Compressed Gas Association; www.cganet.com.
56. CIMA - Cellulose Insulation Manufacturers Association; www.cellulose.org.
57. CISCA - Ceilings & Interior Systems Construction Association; www.cisca.org.
58. CISPI - Cast Iron Soil Pipe Institute; www.cispi.org.
59. CLFMI - Chain Link Fence Manufacturers Institute; www.chainlinkinfo.org.
60. CPA - Composite Panel Association; www.compositepanel.org.
61. CRI - Carpet and Rug Institute (The); www.carpet-rug.org.
62. CRRC - Cool Roof Rating Council; www.coolroofs.org.
63. CRSI - Concrete Reinforcing Steel Institute; www.crsi.org.
64. CSA - CSA Group; www.csa-group.org.
65. CSI - Construction Specifications Institute (The); www.csiresources.org.
66. CSSB - Cedar Shake & Shingle Bureau; www.cedarbureau.org.
67. CTA - Consumer Technology Association; www.cta.tech.
68. CTI - Cooling Technology Institute; (Formerly: Cooling Tower Institute); www.coolingtechnology.org.
69. CWC - Composite Wood Council; (See CPA).
70. DASMA - Door and Access Systems Manufacturers Association; www.dasma.com.
71. DHA - Decorative Hardwoods Association; (Formerly: Hardwood Plywood & Veneer Association); www.decorativehardwoods.org.
72. DHI - Door and Hardware Institute; www.dhi.org.
73. ECA - Electronic Components Association; (See ECIA).
74. ECAMA - Electronic Components Assemblies & Materials Association; (See ECIA).
75. ECIA - Electronic Components Industry Association; www.ecianow.org.
76. EIA - Electronic Industries Alliance; (See TIA).
77. EIMA - EIFS Industry Members Association; www.eima.com.
78. EJMA - Expansion Joint Manufacturers Association, Inc.; www.ejma.org.
79. EOS/ESD Association; (Electrostatic Discharge Association); www.esda.org.
80. ESTA - Entertainment Services and Technology Association; (See PLASA).
81. ETL - Intertek (See Intertek); www.intertek.com.
82. EVO - Efficiency Valuation Organization; www.evo-world.org.
83. FCI - Fluid Controls Institute; www.fluidcontrolsinstitute.org.
84. FIBA - Federation Internationale de Basketball; (The International Basketball Federation); www.fiba.com.
85. FIVB - Federation Internationale de Volleyball; (The International Volleyball Federation); www.fivb.org.
86. FM Approvals - FM Approvals LLC; www.fmglobal.com.

87. FM Global - FM Global; (Formerly: FMG - FM Global); www.fmglobal.com.
88. FRSA - Florida Roofing, Sheet Metal Contractors Association, Inc.; www.floridaroof.com.
89. FSA - Fluid Sealing Association; www.fluidsealing.com.
90. FSC - Forest Stewardship Council U.S.; www.fscus.org.
91. GA - Gypsum Association; www.gypsum.org.
92. GANA - Glass Association of North America; (See NGA).
93. GS - Green Seal; www.greenseal.org.
94. HI - Hydraulic Institute; www.pumps.org.
95. HI/GAMA - Hydronics Institute/Gas Appliance Manufacturers Association; (See AHRI).
96. HMMA - Hollow Metal Manufacturers Association; (See NAAMM).
97. HPVA - Hardwood Plywood & Veneer Association; (See DHA).
98. HPW - H. P. White Laboratory, Inc.; www.hpwhite.com.
99. IAPSC - International Association of Professional Security Consultants; www.iapsc.org.
100. IAS - International Accreditation Service; www.iasonline.org.
101. ICBO - International Conference of Building Officials; (See ICC).
102. ICC - International Code Council; www.iccsafe.org.
103. ICEA - Insulated Cable Engineers Association, Inc.; www.icea.net.
104. ICPA - International Cast Polymer Association; www.theicpa.com.
105. ICRI - International Concrete Repair Institute, Inc.; www.icri.org.
106. IEC - International Electrotechnical Commission; www.iec.ch.
107. IEEE - Institute of Electrical and Electronics Engineers, Inc. (The); www.ieee.org.
108. IES - Illuminating Engineering Society; (Formerly: Illuminating Engineering Society of North America); www.ies.org.
109. IESNA - Illuminating Engineering Society of North America; (See IES).
110. IEST - Institute of Environmental Sciences and Technology; www.iest.org.
111. IGMA - Insulating Glass Manufacturers Alliance; www.igmaonline.org.
112. IGSHPA - International Ground Source Heat Pump Association; www.igshpa.org.
113. II - Infocomm International; (See AVIXA).
114. ILI - Indiana Limestone Institute of America, Inc.; www.iliai.com.
115. Intertek - Intertek Group; (Formerly: ETL SEMCO; Intertek Testing Service NA); www.intertek.com.
116. ISA - International Society of Automation (The); (Formerly: Instrumentation, Systems, and Automation Society); www.isa.org.
117. ISAS - Instrumentation, Systems, and Automation Society (The); (See ISA).
118. ISFA - International Surface Fabricators Association; (Formerly: International Solid Surface Fabricators Association); www.isfanow.org.
119. ISO - International Organization for Standardization; www.iso.org.
120. ISSFA - International Solid Surface Fabricators Association; (See ISFA).
121. ITU - International Telecommunication Union; www.itu.int.
122. KCMA - Kitchen Cabinet Manufacturers Association; www.kcma.org.
123. LMA - Laminating Materials Association; (See CPA).
124. LPI - Lightning Protection Institute; www.lightning.org.
125. MBMA - Metal Building Manufacturers Association; www.mbma.com.
126. MCA - Metal Construction Association; www.metalconstruction.org.
127. MFMA - Maple Flooring Manufacturers Association, Inc.; www.maplefloor.org.
128. MFMA - Metal Framing Manufacturers Association, Inc.; www.metalframingmfg.org.
129. MHI - Material Handling Industry of America; www.mhia.org.
130. MIA - Marble Institute of America; (See NSI).
131. MMPA - Moulding & Millwork Producers Association; www.wmmpa.com.
132. MPI - Master Painters Institute; www.paintinfo.com.
133. MSS - Manufacturers Standardization Society of The Valve and Fittings Industry Inc.; www.mss-hq.org.
134. NAAMM - National Association of Architectural Metal Manufacturers; www.naamm.org.
135. NACE - NACE International; (National Association of Corrosion Engineers International); www.nace.org.
136. NADCA - National Air Duct Cleaners Association; www.nadca.com.

137. NAIMA - North American Insulation Manufacturers Association; www.naima.org.
138. NALP - National Association of Landscape Professionals; www.landscapeprofessionals.org.
139. NBGQA - National Building Granite Quarries Association, Inc.; www.nbgqa.com.
140. NBI - New Buildings Institute; www.newbuildings.org.
141. NCAA - National Collegiate Athletic Association (The); www.ncaa.org.
142. NCMA - National Concrete Masonry Association; www.ncma.org.
143. NEBB - National Environmental Balancing Bureau; www.nebb.org.
144. NECA - National Electrical Contractors Association; www.necanet.org.
145. NeLMA - Northeastern Lumber Manufacturers Association; www.nelma.org.
146. NEMA - National Electrical Manufacturers Association; www.nema.org.
147. NETA - InterNational Electrical Testing Association; www.netaworld.org.
148. NFHS - National Federation of State High School Associations; www.nfhs.org.
149. NFPA - National Fire Protection Association; www.nfpa.org.
150. NFPA - NFPA International; (See NFPA).
151. NFRC - National Fenestration Rating Council; www.nfrc.org.
152. NGA - National Glass Association (The); (Formerly: Glass Association of North America); www.glass.org.
153. NHLA - National Hardwood Lumber Association; www.nhla.com.
154. NLGA - National Lumber Grades Authority; www.nlga.org.
155. NOFMA - National Oak Flooring Manufacturers Association; (See NWFA).
156. NOMMA - National Ornamental & Miscellaneous Metals Association; www.nomma.org.
157. NRCA - National Roofing Contractors Association; www.nrca.net.
158. NRMCA - National Ready Mixed Concrete Association; www.nrmca.org.
159. NSF - NSF International; www.nsf.org.
160. NSI - National Stone Institute; (Formerly: Marble Institute of America); www.naturalstoneinstitute.org.
161. NSPE - National Society of Professional Engineers; www.nspe.org.
162. NSSGA - National Stone, Sand & Gravel Association; www.nssga.org.
163. NTMA - National Terrazzo & Mosaic Association, Inc. (The); www.ntma.com.
164. NWFA - National Wood Flooring Association; www.nwfa.org.
165. NWRA - National Waste & Recycling Association; www.wasterecycling.org
166. PCI - Precast/Prestressed Concrete Institute; www.pci.org.
167. PDI - Plumbing & Drainage Institute; www.pdionline.org.
168. PLASA - PLASA; (Formerly: ESTA - Entertainment Services and Technology Association); www.plasa.org.
169. RCSC - Research Council on Structural Connections; www.boltcouncil.org.
170. RFCI - Resilient Floor Covering Institute; www.rfci.com.
171. RIS - Redwood Inspection Service; www.redwoodinspection.com.
172. SAE - SAE International; www.sae.org.
173. SCTE - Society of Cable Telecommunications Engineers; www.scte.org.
174. SDI - Steel Deck Institute; www.sdi.org.
175. SDI - Steel Door Institute; www.steeldoor.org.
176. SEFA - Scientific Equipment and Furniture Association (The); www.sefalabs.com.
177. SEI/ASCE - Structural Engineering Institute/American Society of Civil Engineers; (See ASCE).
178. SIA - Security Industry Association; www.siaonline.org.
179. SJI - Steel Joist Institute; www.steeljoist.org.
180. SMA - Screen Manufacturers Association; www.smainfo.org.
181. SMACNA - Sheet Metal and Air Conditioning Contractors' National Association; www.smacna.org.
182. SMPTE - Society of Motion Picture and Television Engineers; www.smpte.org.
183. SPFA - Spray Polyurethane Foam Alliance; www.sprayfoam.org.
184. SPIB - Southern Pine Inspection Bureau; www.spib.org.
185. SPRI - Single Ply Roofing Industry; www.spri.org.
186. SRCC - Solar Rating & Certification Corporation; www.solar-rating.org.

187. SSINA - Specialty Steel Industry of North America; www.ssina.com.
188. SSPC - SSPC: The Society for Protective Coatings; www.sspc.org.
189. STI - Steel Tank Institute; www.steeltank.com.
190. SWI - Steel Window Institute; www.steelwindows.com.
191. SWPA - Submersible Wastewater Pump Association; www.swpa.org.
192. TCA - Tilt-Up Concrete Association; www.tilt-up.org.
193. TCNA - Tile Council of North America, Inc.; www.tileusa.com.
194. TEMA - Tubular Exchanger Manufacturers Association, Inc.; www.tema.org.
195. TIA - Telecommunications Industry Association (The); (Formerly: TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance); www.tiaonline.org.
196. TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance; (See TIA).
197. TMS - The Masonry Society; www.masonrysociety.org.
198. TPI - Truss Plate Institute; www.tpinst.org.
199. TPI - Turfgrass Producers International; www.turfgrasssod.org.
200. TRI - Tile Roofing Institute; www.tileroofing.org.
201. UL - Underwriters Laboratories Inc.; www.ul.com.
202. UNI - Uni-Bell PVC Pipe Association; www.uni-bell.org.
203. USAV - USA Volleyball; www.usavolleyball.org.
204. USGBC - U.S. Green Building Council; www.usgbc.org.
205. USITT - United States Institute for Theatre Technology, Inc.; www.usitt.org.
206. WA - Wallcoverings Association; www.wallcoverings.org.
207. WCLIB - West Coast Lumber Inspection Bureau; www.wclib.org.
208. WCMA - Window Covering Manufacturers Association; www.wcmanet.org.
209. WDMA - Window & Door Manufacturers Association; www.wdma.com.
210. WI - Woodwork Institute; www.wicnet.org.
211. WSRCA - Western States Roofing Contractors Association; www.wsrca.com.
212. WWPA - Western Wood Products Association; http://www.wwpa.org.

B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is believed to be accurate as of the date of the Contract Documents.

1. IAPMO - International Association of Plumbing and Mechanical Officials; www.iapmo.org.
2. ICC - International Code Council; www.iccsafe.org.
3. ICC-ES - ICC Evaluation Service, LLC; www.icc-es.org.

C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Information is subject to change and is up to date as of the date of the Contract Documents.

1. COE - Army Corps of Engineers; www.usace.army.mil.
2. CPSC - Consumer Product Safety Commission; www.cpsc.gov.
3. DOC - Department of Commerce; National Institute of Standards and Technology; www.nist.gov.
4. DOD - Department of Defense; www.quicksearch.dla.mil.
5. DOE - Department of Energy; www.energy.gov.
6. EPA - Environmental Protection Agency; www.epa.gov.
7. FAA - Federal Aviation Administration; www.faa.gov.
8. FG - Federal Government Publications; www.gpo.gov/fdsys.
9. GSA - General Services Administration; www.gsa.gov.
10. HUD - Department of Housing and Urban Development; www.hud.gov.
11. LBL - Lawrence Berkeley National Laboratory; Environmental Energy Technologies Division; www.eetd.lbl.gov.

12. OSHA - Occupational Safety & Health Administration; www.osha.gov.
13. SD - Department of State; www.state.gov.
14. TRB - Transportation Research Board; National Cooperative Highway Research Program; The National Academies; www.trb.org.
15. USDA - Department of Agriculture; Agriculture Research Service; U.S. Salinity Laboratory; www.ars.usda.gov.
16. USDA - Department of Agriculture; Rural Utilities Service; www.usda.gov.
17. USDOJ - Department of Justice; Office of Justice Programs; National Institute of Justice; www.ojp.usdoj.gov.
18. USP - U.S. Pharmacopeial Convention; www.usp.org.
19. USPS - United States Postal Service; www.usps.com.

D. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.

1. CFR - Code of Federal Regulations; Available from Government Printing Office; www.govinfo.gov.
2. DOD - Department of Defense; Military Specifications and Standards; Available from DLA Document Services; www.quicksearch.dla.mil.
3. DSCC - Defense Supply Center Columbus; (See FS).
4. FED-STD - Federal Standard; (See FS).
5. FS - Federal Specification; Available from DLA Document Services; www.quicksearch.dla.mil.

    a. Available from Defense Standardization Program; www.dsp.dla.mil.
    b. Available from General Services Administration; www.gsa.gov.
    c. Available from National Institute of Building Sciences/Whole Building Design Guide; www.wbdg.org.

6. MILSPEC - Military Specification and Standards; (See DOD).
7. USAB - United States Access Board; www.access-board.gov.
8. USATBCB - U.S. Architectural & Transportation Barriers Compliance Board; (See USAB).

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014200

Copyright 2007 by The American Institute of Architects (AIA)

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements for temporary support, security, and protection facilities.

B. Related Requirements:

1. Section 011000 "Summary of Work" for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Architect, testing agencies, and authorities having jurisdiction.

B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

1.4 INFORMATIONAL SUBMITTALS

A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

B. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.

1.5 QUALITY ASSURANCE

A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

PART 2 - PRODUCTS

2.1 TEMPORARY FACILITIES

A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading, if required. Unit must be large enough for regular job meetings, plan review areas, submittal storage and other job file and administrative functions.

B. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.

1. Sheds to be metal box storage units or have wood floors raised above the ground.
2. Store combustible materials apart from building.

2.2 EQUIPMENT

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.

B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

A. General: Install temporary service or connect to existing service.

1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

B. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.

C. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

D. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.

E. Electronic Communication Service: Regardless of availability of Owner’s service, the Contractor shall maintain at his expense secure and reliable WiFi wireless connection to internet with provisions for access by Architect, the Owner’s staff, Municipal Officials or Inspectors, and all subcontractors.

3.3 SUPPORT FACILITIES INSTALLATION

A. General: Comply with the following:

1. Provide construction for temporary sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.
2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

B. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

C. Parking: Provide temporary parking areas for construction personnel.

D. Storage and Staging: Use designated areas of Project site for storage and staging needs.

E. Project Signs: Provide Project signs as required by Owner. Unauthorized signs are not permitted.

1. Identification Signs: Provide Project identification signs.
2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.

a. Provide temporary, directional signs for construction personnel and visitors.

3. Maintain and touch up signs so they are legible at all times.

F. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."

G. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

C. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

D. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.

E. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.

3.5 OPERATION, TERMINATION, AND REMOVAL

A. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.

B. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

B. Related Sections:

1. Section 012500 "Substitution Procedures" for requests for substitutions.
2. Section 014200 "References" for applicable industry standards for products specified.

1.3 DEFINITIONS

A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.4 ACTION SUBMITTALS

A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.

2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one (1) week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within seven (7) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.

    a. Form of Approval: As specified in Section 013300 "Submittal Procedures."
    b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.

B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two (2) or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

B. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
5. Protect stored products from damage and liquids from freezing.
6. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
3. Refer to Divisions 02 through 49. Sections for specific content requirements and particular requirements for submitting special warranties.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures:

1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
3. Products:

a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one (1) of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered, unless otherwise indicated.
b. Non-Restricted List: Where Specifications include a list of names of both available manufacturers and products, provide one (1) of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.

4. Manufacturers:

a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one (1) of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered, unless otherwise indicated.
b. Non-Restricted List: Where Specifications include a list of available manufacturers, provide a product by one (1) of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.

5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one (1) of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one (1) of the other named manufacturers.

C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.

1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.

D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:

1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
2. Detailed, SIDE-BY-SIDE comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as

performance, weight, size, durability, visual effect, and specific features and requirements indicated.

3. Evidence that proposed product provides specified warranty.
4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

1. Installation of the Work.
2. Cutting and patching.
3. Progress cleaning.
4. Starting and adjusting.
5. Protection of installed construction.
6. Correction of the Work.

B. Related Sections:

1. Section 013300 "Submittal Procedures" for submitting surveys.

1.3 DEFINITIONS

A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.

B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.4 QUALITY ASSURANCE

A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.

1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from the Architect before proceeding. Shore, brace, and support structural element during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.
2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities.

Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Comply with requirements specified in other Sections.

B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to the Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:

a. Description of the Work.
b. List of detrimental conditions, including substrates.
c. List of unacceptable installation tolerances.
d. Recommended corrections.

2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of the Contractor, submit a request for information to Architect according to requirements in Section 013100 "Project Management and Coordination."

3.3 INSTALLATION

A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb and make horizontal work level.
2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.

F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
2. Allow for building movement, including thermal expansion and contraction.

H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.4 CUTTING AND PATCHING

A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Temporary Support: Provide temporary support of work to be cut.

C. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

D. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching.

E. Existing Utility Services: Where existing services are required to be removed, relocated, or abandoned, bypass such systems before cutting to minimize interruption to occupied areas.

F. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
4. Proceed with patching after construction operations requiring cutting are complete.

G. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.

    a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    b. Restore damaged pipe covering to its original condition.

3. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
4. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

H. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.5 PROGRESS CLEANING

A. General: Clean Project site and work areas daily at the end of each workday, including common areas. Empty or remove dumpsters at the end of each work week. Enforce requirements strictly. Dispose of materials lawfully.

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
2. Do not hold waste materials more than seven (7) days during normal weather or three (3) days if the temperature is expected to rise above 80 deg F (27 deg C).
3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

    a. Utilize containers intended for holding waste materials of type to be stored.

4. Coordinate progress cleaning for joint-use areas where more than one installer has worked.

B. Site: Maintain Project site free of waste materials and debris.

C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.

1. Remove liquid spills promptly.
2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.

D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 015000 "Temporary Facilities and Controls."

H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.6 STARTING AND ADJUSTING

A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.

B. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.

C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

D. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements."

3.7 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.8 CORRECTION OF THE WORK

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.

1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

B. Restore permanent facilities used during construction to their specified condition.

C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

1. Substantial Completion procedures.
2. Final completion procedures.
3. Warranties.

B. Related Sections:

1. Section 017300 "Execution" for progress cleaning of Project site.
2. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
3. Section 017839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
4. Divisions 02 through 49 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.3 SUBSTANTIAL COMPLETION

A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete with request.

1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
2. Advise Owner of pending insurance changeover requirements.
3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
5. Prepare and submit Project Record Documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, and similar final record information.
6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
7. Complete startup testing of systems.
8. Submit test/adjust/balance records.
9. Terminate and remove temporary facilities from Project site, along with construction tools and similar elements.
10. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
11. Complete final cleaning requirements, including touchup painting.

12. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for final completion.

1.4 FINAL COMPLETION

A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:

1. Submit a final Application for Payment according to Section 012900 "Payment Procedures."
2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
5. Secure and provide both temporary and final Certificate of Occupancy from the Building Official, meeting all local and state permit closeout requirements.

B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

C. CT DOE OSCG&R Closeout Assistance:

1. The Contractor shall assist the Architect and Owner with the Office of School Construction Grants and Review closeout and any audit of the project by providing supplemental cost or scope information related to their work or change orders that were executed during the course of the project. This assistance may require administrative support from the Contractor’s office but may also require in-person attendance at meetings with the Owner, and any information requested by the Owner must be provided within five (5) calendar days of the request.
2. This closeout service shall be provided at no additional expense to the project and may be required as much as twenty-four (24) months after the final date of substantial completion of the project.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use **CSI Form 14.1A** or comparable form.

1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
3. Include the following information at the top of each page:

    a. Project name.
    b. Date.
    c. Name of Architect.
    d. Name of Contractor.
    e. Page number.

4. Submit list of incomplete items in the following format:

    a. PDF electronic file. Architect will return annotated file.

1.6 WARRANTIES

A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

B. Partial Occupancy: Submit properly executed warranties within fifteen (15) days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.

C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.

1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8½-by-11-inch paper.
2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
4. Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide table of contents at beginning of document.

D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION (Not Used)

END OF SECTION 017700

SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:

1. Operation and maintenance documentation directory.
2. Emergency manuals.
3. Systems and equipment operation manuals.
4. Systems and equipment maintenance manuals.
5. Product maintenance manuals.

B. Related Sections:

1. Section 013300 "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
2. Divisions 02 through 49 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.3 DEFINITIONS

A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.

B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 CLOSEOUT SUBMITTALS

A. Manual Content: Operations and maintenance manual content is specified in individual specification sections, and as reviewed and approved at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.

1. Architect will comment on whether content of operation and maintenance submittals is acceptable.
2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.

B. Format: Submit operations and maintenance manuals in the following format:

1. Two (2) thumb drives. Enable review comments on draft submittals.
2. Two (2) paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves. Architect will return both copies to be given to the Owner.

C. Initial Manual Submittal: Submit draft copy of each manual at least thirty (30) days before commencing demonstration and training. Architect will comment on whether general scope and content of manual are acceptable.

D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least fifteen (15) days before commencing demonstration and training. Architect will return copy with comments.

1. Correct or modify each manual to comply with Architect's comments. Submit copies of each corrected manual within fifteen (15) days of receipt of Architect's comments and prior to commencing demonstration and training.

E. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

1.5 FORMAT OF OPERATION AND MAINTENANCE MANUALS

A. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.

1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
2. File Names and Bookmarks: Bookmark individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.

B. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.

1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8½-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.

a. If two (2) or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, subject matter of contents, and indicate Specification Section number on bottom of spine. Indicate volume number for multiple-volume sets.

2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment. Enclose title pages and directories in clear plastic sleeves.
4. Supplementary Text: Prepared on 8½-by-11-inch white bond paper.

5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.

    a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
    b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

1.6 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

A. Organization of Manuals: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:

1. Title page.
2. Table of contents.
3. Manual contents.

B. Title Page: Include the following information:

1. Subject matter included in manual.
2. Name and address of Project.
3. Name and address of Owner.
4. Date of submittal.
5. Name and contact information for Contractor.
6. Name and contact information for Architect.
7. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
8. Cross-reference to related systems in other operation and maintenance manuals.

C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.

1. If operation or maintenance documentation requires more than one (1) volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.

D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one (1) system into a single binder.

1.7 EMERGENCY MANUALS

A. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.

B. Content: Organize manual into a separate section for each of the following:

1. Type of emergency.
2. Emergency instructions.
3. Emergency procedures.

C. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:

1. Fire.
2. Flood.
3. Gas leak.
4. Water leak.
5. Power failure.
6. Water outage.
7. System, subsystem, or equipment failure.
8. Chemical release or spill.

D. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.

E. Emergency Procedures: Include the following, as applicable:

1. Instructions on stopping.
2. Shutdown instructions for each type of emergency.
3. Operating instructions for conditions outside normal operating limits.
4. Required sequences for electric or electronic systems.
5. Special operating instructions and procedures.

1.8 SYSTEMS AND EQUIPMENT OPERATION MANUALS

A. Systems and Equipment Operation Manual: Assemble a complete set of data indicating operation of each system, subsystem, and piece of equipment not part of a system. Include information required for daily operation and management, operating standards, and routine and special operating procedures.

1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.

B. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:

1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
2. Performance and design criteria if Contractor is delegated design responsibility.
3. Operating standards.
4. Operating procedures.
5. Operating logs.
6. Wiring diagrams.
7. Control diagrams.
8. Piped system diagrams.
9. Precautions against improper use.
10. License requirements including inspection and renewal dates.

C. Descriptions: Include the following:

1. Product name and model number. Use designations for products indicated on Contract Documents.

2. Manufacturer's name.
3. Equipment identification with serial number of each component.
4. Equipment function.
5. Operating characteristics.
6. Limiting conditions.
7. Performance curves.
8. Engineering data and tests.
9. Complete nomenclature and number of replacement parts.

D. Operating Procedures: Include the following, as applicable:

1. Startup procedures.
2. Equipment or system break-in procedures.
3. Routine and normal operating instructions.
4. Regulation and control procedures.
5. Instructions on stopping.
6. Normal shutdown instructions.
7. Seasonal and weekend operating instructions.
8. Required sequences for electric or electronic systems.
9. Special operating instructions and procedures.

E. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.

F. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

1.9 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

A. Systems and Equipment Maintenance Manuals: Assemble a complete set of data indicating maintenance of each system, subsystem, and piece of equipment not part of a system. Include manufacturers' maintenance documentation, preventive maintenance procedures and frequency, repair procedures, wiring and systems diagrams, lists of spare parts, and warranty information.

1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
2. Prepare a separate manual for each system and subsystem, in the form of an instructional

B. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.

C. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

D. Manufacturers' Maintenance Documentation: Include the following information for each component part or piece of equipment:

1. Standard maintenance instructions and bulletins; include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one (1) item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.

    a. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.

2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
3. Identification and nomenclature of parts and components.
4. List of items recommended to be stocked as spare parts.

E. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:

1. Test and inspection instructions.
2. Troubleshooting guide.
3. Precautions against improper maintenance.
4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
5. Aligning, adjusting, and checking instructions.

F. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.

1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.

G. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.

H. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.

I. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

1. Include procedures to follow and required notifications for warranty claims.

J. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.

1. Do not use original project record documents as part of maintenance manuals.

1.10 PRODUCT MAINTENANCE MANUALS

A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.

B. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.

C. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

D. Product Information: Include the following, as applicable:

1. Product name and model number.
2. Manufacturer's name.
3. Color, pattern, and texture.
4. Material and chemical composition.
5. Reordering information for specially manufactured products.

E. Maintenance Procedures: Include manufacturer's written recommendations and the following:

1. Inspection procedures.
2. Types of cleaning agents to be used and methods of cleaning.
3. List of cleaning agents and methods of cleaning detrimental to product.
4. Schedule for routine cleaning and maintenance.
5. Repair instructions.

F. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.

G. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

1. Include procedures to follow and required notifications for warranty claims.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017823

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for project record documents, including the following:

1. Record Drawings.
2. Record Specifications.
3. Record Product Data.
4. Miscellaneous record submittals.

B. Related Sections:

1. Section 017700 "Closeout Procedures" for general closeout procedures.
2. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
3. Divisions 02 through 49 Sections for specific requirements for project record documents of the Work in those Sections.

1.3 CLOSEOUT SUBMITTALS

A. Record Drawings: Comply with the following:

1. Number of Copies: Submit one (1) set(s) of marked-up record prints.

B. Record Specifications: Submit one (1) paper copy of Project's Specifications, including addenda and contract modifications.

C. Record Product Data: Submit one (1) paper copy of each submittal.

1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

A. Record Prints: Maintain one (1) set of marked-up paper copies of the Contract Drawings and Shop Drawings.

1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.

a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
b. Accurately record information in an acceptable drawing technique.
c. Record data as soon as possible after obtaining it.
d. Record and check the markup before enclosing concealed installations.
e. Cross-reference record prints to corresponding archive photographic documentation.

2. Content: Types of items requiring marking include, but are not limited to, the following:

a. Dimensional changes to Drawings.
b. Revisions to details shown on Drawings.
c. Revisions to routing of piping and conduits.
d. Revisions to electrical circuitry.
e. Actual equipment locations.
f. Locations of concealed internal utilities.
g. Changes made by Change Order or Construction Change Directive.
h. Changes made following Architect's written orders.
i. Details not on the original Contract Drawings.
j. Field records for variable and concealed conditions.
k. Record information on the Work that is shown only schematically.

3. Mark the Contract Drawings and Shop Drawings completely and accurately. Utilize personnel proficient at recording graphic information in production of marked-up record prints.
4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
5. Mark important additional information that was either shown schematically or omitted from original Drawings.
6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

B. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.

1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
2. Format: Paper copy.
3. Identification: As follows:

a. Project name.
b. Date.
c. Designation "PROJECT RECORD DRAWINGS."
d. Name of Architect.
e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.

2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
5. Note related Change Orders, record Product Data, and record Drawings where applicable.

B. Format: Submit record Specifications as paper copy.

2.3 RECORD PRODUCT DATA

A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
3. Note related Change Orders, record Specifications, and record Drawings where applicable.

B. Format: Submit record Product Data as paper copy.

1. Include record Product Data directory organized by specification section number and title, electronically linked to each item of record Product Data.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

A. Recording: Maintain one (1) copy of each submittal during the construction period for project record document purposes. Post changes and modifications to project record documents as they occur; do not wait until the end of Project.

B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

END OF SECTION 017839

Limited Asbestos Inspection Report
Roof Replacement

For

John F. Kennedy High School

422 Highland Ave
Waterbury, CT 06708

PREPARED FOR:

Waterbury Public Schools
236 Grand Street
Waterbury CT, 06702

PREPARED BY:

FSS
Facility Support Services

121 North Plains Industrial Rd; Unit F
Wallingford, CT 06492
Phone (203) 288-1281

June 9, 2023

FSS Project #15923

SIGNATURES OF REPORT AUTHORS

The employees of Facility Support Services, LLC whose names appear below prepared this report. Requests for information on the content of this document should be directed to these individuals.



Michael DiFabio
CT DPH Asbestos Inspector (#000340)

I. PROJECT NARRATIVE

Facility Support Services, LLC (FSS) was contracted to perform a limited asbestos inspection at John F. Kennedy High School, located at 422 Highland Ave in Waterbury, Connecticut. The inspection took place on June 2, 2023, with the purpose of identifying the presence of asbestos in suspect materials prior to future replacement of the majority of the building roof. Roof sections included in this project and inspection include the following and are homogeneous throughout:

Roof Sections 1,2,3,4,5,6,7,8,10, 11, 12, 13, 15, 16, 17, 18, 19
Note: Roof sections 14 and 20 are not in the project scope

Please see Section VI for attached drawings (page A-1) provided by Silver Petrucelli & Associates to reference roof section identification.

The asbestos inspection was performed following the Environmental Protection Agency (EPA), National Emissions Standard for Hazardous Air Pollutants (NESHAP) regulations for building renovations and demolition, 40 CFR Part 61, Amended 11/20/1990. In accordance with contract terms, non-destructive sampling techniques were utilized, and inaccessible materials were not included in this inspection (sub-slab, sub-frame, wall chases, etc.). Should these inaccessible areas be subject to renovations and suspect materials are discovered, sampling and analysis must be conducted to confirm asbestos content.

On June 2, 2023 a total of twenty-six (26) bulk suspect asbestos samples were collected. The materials identified and sampled from the building are detailed in the following list.

- Roof #1
  - Top Layer Membrane
  - Brown Fibrous Layer (beneath top layer membrane)
  - Soft Concrete Material (below foam layer)
  - Edge/Unit Flashing Material
  - Old Unit/Flashing Tar (Black)
  - Newer Edge/Unit Flashing Tar (Gray)
  - Silver Patch Tar
- Roof #15
  - Top Layer Membrane
  - Brown Fibrous Layer (beneath top layer membrane)
  - Soft Concrete Material (below brown fibrous layer)
- Roof #10
  - Top Layer Membrane
  - Brown Fibrous Layer (beneath top layer membrane)
  - Soft Concrete Material (below foam layer)

Note: Samples collected during this inspection represent all roof sections associated with this roof replacement project. Roofs have been deemed homogeneous during this inspection. See photos of specific and general sample/inspection areas in Section VII of this report.

II. SUMMARY OF RESULTS

Samples of building materials collected by FSS were analyzed by EMSL Analytical, Inc., for EPA method 600/R-93/116. This is currently the approved EPA test method, which uses Polarized Light Microscopy (PLM) that uses dispersion staining. EMSL Analytical, Inc. is an accredited asbestos laboratory (NVLAP #200700-0) and is a State of Connecticut approved public health laboratory for asbestos analysis.

No Asbestos-Containing Materials were identified during this inspection.

Laboratory results have revealed that none of the materials tested during this supplemental inspection are considered asbestos containing materials according to Local and Federal Regulations (i.e., contains less than 1% asbestos).

See Section V for a copy of the laboratory analytical reports for the samples collected.

III. CONCLUSIONS

The samples collected from the various locations of the John F. Kennedy High School roof do not contain asbestos according to laboratory data. These materials may be removed and disposed of as general construction debris.

FSS made reasonable effort to locate, identify, and homogenize all suspect asbestos containing materials that are part of this project. Any material discovered and may be impacted during project activities, which have not been included in this survey or previously sampled, must be presumed to contain asbestos until such time that bulk samples can be collected and analyzed for asbestos content.

IV. LABORATORY ANALYTICAL RESULTS

EMSL Analytical, Inc.

165 Gracey Avenue Meriden, CT 06451

Tel/Fax: (203) 284-5948 / (203) 284-5978

http://www.EMSL.com / meridenlab@emsl.com

EMSL Order: 242302790
Customer ID: FSS93
Customer PO:
Project ID:

Attention: Michael DiFabio
Facility Support Services, LLC
121 North Plains Industrial Road, Unit F
Wallingford, CT 06492

Project: KENNEDY/ 15923

Phone: (203) 288-1281
Fax: (203) 248-4409
Received Date: 06/01/2023 1:15 PM
Analysis Date: 06/08/2023
Collected Date: 06/02/2023

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
159230602-01A *242302790-0001*	Roof #1 - top layer membrane	Black Non-Fibrous Homogeneous	10% Cellulose 10% Glass	80% Non-fibrous (Other)	None Detected
159230602-01B *242302790-0002*	Roof #1 - top layer membrane	Black Fibrous Homogeneous	10% Cellulose 15% Glass	75% Non-fibrous (Other)	None Detected
159230602-02A *242302790-0003*	Roof #1 - brown fibrous layer beneath membrane top layer	Brown Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
159230602-02B *242302790-0004*	Roof #1 - brown fibrous layer beneath membrane top layer	Brown Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (Other)	None Detected
159230602-03A *242302790-0005*	Roof #1 - soft concrete material below foam	Gray Non-Fibrous Homogeneous	2% Cellulose	8% Vermiculite 90% Non-fibrous (Other)	None Detected
159230602-03B *242302790-0006*	Roof #1 - soft concrete material below foam	Gray Non-Fibrous Homogeneous	5% Cellulose	5% Vermiculite 90% Non-fibrous (Other)	None Detected
159230602-04A *242302790-0007*	Roof #1 - edge/unit flashing material	Black Non-Fibrous Homogeneous	5% Glass	95% Non-fibrous (Other)	None Detected
159230602-04B *242302790-0008*	Roof #1 - edge/unit flashing material	Black Fibrous Homogeneous	15% Glass	3% Quartz 82% Non-fibrous (Other)	None Detected
159230602-05A *242302790-0009*	Roof #1 - old edge/unit flashing tar (black)	Black Non-Fibrous Homogeneous	3% Cellulose 2% Glass	95% Non-fibrous (Other)	None Detected
159230602-05B *242302790-0010*	Roof #1 - old edge/unit flashing tar (black)	Black Non-Fibrous Homogeneous	3% Cellulose	3% Quartz 94% Non-fibrous (Other)	None Detected
159230602-06A *242302790-0011*	Roof #1 - newer edge /unit flashing tar (gray)	Black Non-Fibrous Homogeneous	3% Cellulose 5% Synthetic	2% Quartz 90% Non-fibrous (Other)	None Detected
159230602-06B *242302790-0012*	Roof #1 - newer edge /unit flashing tar (gray)	Black Non-Fibrous Homogeneous	3% Cellulose	2% Quartz 95% Non-fibrous (Other)	None Detected
159230602-07A *242302790-0013*	Roof #1 - silver patch tar	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
159230602-07B *242302790-0014*	Roof #1 - silver patch tar	Black/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
159230602-08A *242302790-0015*	Roof #15 - top layer membrane	Black Non-Fibrous Homogeneous	5% Cellulose	3% Quartz 92% Non-fibrous (Other)	None Detected
159230602-08B *242302790-0016*	Roof #15 - top layer membrane	Black Fibrous Homogeneous	35% Cellulose 10% Glass	55% Non-fibrous (Other)	None Detected

Initial report from: 06/09/2023 13:07:23

EMSL Analytical, Inc.

165 Gracey Avenue Meriden, CT 06451

Tel/Fax: (203) 284-5948 / (203) 284-5978

http://www.EMSL.com / meridenlab@emsl.com

EMSL Order:	242302790
Customer ID:	FSS93
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
159230602-09A *242302790-0017*	Roof #15 - brown fibrous layer beneath top layer membrane	Brown Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
159230602-09B *242302790-0018*	Roof #15 - brown fibrous layer beneath top layer membrane	Brown Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
159230602-10A *242302790-0019*	Roof #15 - soft concrete material below brown fibrous layer	Gray Non-Fibrous Homogeneous	3% Cellulose	5% Quartz 5% Vermiculite 87% Non-fibrous (Other)	None Detected
159230602-10B *242302790-0020*	Roof #15 - soft concrete material below brown fibrous layer	Gray Non-Fibrous Homogeneous		8% Quartz 92% Non-fibrous (Other)	None Detected
159230602-11A *242302790-0021*	Roof #10 - top layer membrane	Black Non-Fibrous Homogeneous	8% Cellulose 5% Glass	2% Quartz 85% Non-fibrous (Other)	None Detected
159230602-11B *242302790-0022*	Roof #10 - top layer membrane	Black Non-Fibrous Homogeneous	5% Glass	3% Quartz 92% Non-fibrous (Other)	None Detected
159230602-12A *242302790-0023*	Roof #10 - brown fibrous layer beneath top layer membrane	Brown Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
159230602-12B *242302790-0024*	Roof #10 - brown fibrous layer beneath top layer membrane	Brown Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
159230602-13A *242302790-0025*	Roof #10 - soft concrete material below foam	Gray Non-Fibrous Homogeneous	3% Cellulose	7% Vermiculite 90% Non-fibrous (Other)	None Detected
159230602-13B *242302790-0026*	Roof #10 - soft concrete material below foam	Gray Non-Fibrous Homogeneous	3% Cellulose	5% Vermiculite 92% Non-fibrous (Other)	None Detected

Analyst(s)

Hailey Rangel (13)

Sara Poppa (13)

Danny Sandhu, Asbestos Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 “Interim Method”) but augmented with procedures outlined in the 1993 (”final”) version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Meriden, CT NVLAP Lab Code 200700-0,

Initial report from: 06/09/2023 13:07:23

OrderID: 242302790

Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only: 242302790

EMSL Analytical, Inc.
165 Gracey Ave
Meriden, CT 06451
PHONE: (203) 284-5948
EMAIL: MeridenLab@emsl.com

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

Customer Information		Billing Information	
Customer ID:		Billing ID:	
Company Name:	Facility Support Services, LLC.	Company Name:	Facility Support Services, LLC.
Contact Name:	Michael DiFabio	Billing Contact:	Michele Viarengo
Street Address:	121 North Plains Industrial Road; Unit F	Street Address:	121 North Plains Industrial Road; Unit F
City, State, Zip:	Wallingford CT 0649	Country: US	City, State, Zip: Wallingford CT 06492 Country: US
Phone:	2032881281		Phone: 203-288-1281
Email(s) for Report:	mdifabio@fssteam.com		Email(s) for Invoice:

Project Information

Project Name/No: Kennedy / 15923 | Purchase Order:

EMSL LIMS Project ID: (If applicable, EMSL will provide) | US State where samples collected: CT | State of Connecticut (CT) must select project location: ☐ Commercial (Taxable) ☐ Residential (Non-Taxable)

Sampled By Name: Michael DiFabio | Sampled By Signature: | No. of Samples in Shipment

Turn-Around-Time (TAT)

☐ 3 Hour ☐ 4-4.5 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☒ 1 Week ☐ 2 Week

TEM Air 3-6 Hour, please call ahead to schedule. 32 Hour TAT available for select tests only; samples must be submitted by 11:30 am.

Test Selection

PCM Air
- ☐ NIOSH 7400
- ☐ NIOSH 7400 w/ 8hr. TWA

PLM - Bulk (reporting limit)
- ☒ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)
- ☐ POINT COUNT
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- POINT COUNT w/ GRAVIMETRIC
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- ☐ NIOSH 9002 (<1%)
- ☐ NYS 198.1 (Friable - NY)
- ☐ NYS 198.6 NOB (Non-Friable - NY)
- ☐ NYS 198.8 (Vermiculite SM-V)

TEM - Air
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312*

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (Non-Friable-NY)
- ☐ TEM EPA 600/R-93/116 w Milling Prep (0.1%)

Other Test (please specify)

TEM - Settled Dust
- ☐ Microvac - ASTM D5755
- ☐ Wipe - ASTM D6480
- ☐ Qualitative via Filtration Prep
- ☐ Qualitative via Drop Mount Prep

Soil - Rock - Vermiculite (reporting limit)*
- ☐ PLM EPA 600/R-93/116 with milling prep (<0.25%)
- ☐ PLM EPA 600/R-93/116 with milling prep (<0.1%)
- ☐ TEM EPA 600/R-93/116 with milling prep (<0.1%)
- ☐ TEM Qualitative via Filtration Prep
- ☐ TEM Qualitative via Drop Mount Prep

*Please call with your project-specific requirements.

☐ Positive Stop - Clearly Identified Homogeneous Areas (HA) | Filter Pore Size (Air Samples) ☐ 0.8um ☐ 0.45um

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
	See Attached		

RECEIVED JUN 08 2023 13:15 BY

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Method of Shipment: Drop off		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time: 6/7/2023 13:15	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-06 Asbestos R15 4/23/2021

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

OrderID: 242302790

242302790

FACILITY SUPPORT SERVICES, LLC

Asbestos Sampling Log

CLIENT: Waterbury Board of Ed DATE: 6/2/2023

LOCATION: Kennedy High SAMPLED BY: M. DiFabio

SAMPLE ID	LOCATION	DESCRIPTION
15923060 2-01A	Roof #1	Top layer Membrane
B		↓
02A		Brown Fibrous layer Beneath Top layer Membrane
B		↓
03A		Soft Concrete Material Below Foam
B		↓
04A		Edge/Unit Flashing Material
B		↓
05A		Old Edge/Unit Flashing Tar (Black)
B		↓
06A		Newer Edge/Unit Flashing Tar (Gray)
B		↓
07A		Silver Patch Tar
B	↓	↓
08A	Roof #15	Top layer Membrane
B		↓
09A		Brown Fibrous Layer Beneath Top layer Membrane.
B		↓
10A		Soft Concrete Material Below Brown Fibrous Layer
B	↓	↓

RECEIVED
JUN 02 2023
BY

2685 STATE STREET • HAMDEN, CT 06517
PH: 203-288-1281 • FAX: 203-248-4409
Website: www.fssteam.com

OrderID: 242302790

242302790

FACILITY SUPPORT SERVICES, LLC

Asbestos Sampling Log

CLIENT: Waterbury Board of Ed DATE: 6/2/2023

LOCATION: Kennedy High SAMPLED BY: M. DiFabio

SAMPLE ID	LOCATION	DESCRIPTION
159230602-11A	Roof #10	Top layer Membrane
B	↓	↓
12A		Brown Fibrous Layer Beneath Top layer Membrane
B		↓
13A		Soft Concrete Material Below Foam
B	↓	↓

RECEIVED
JUN 02 2023
BY

3 of 3

2685 STATE STREET • HAMDEN, CT 06517
PH: 203-288-1281 • FAX: 203-248-4409
Website: www.fssteam.com

V. LICENSURE

1000462 SP 0564 -C01-P00464-I

MICHAEL V DIFABIO
[redacted]

Dear MICHAEL V DIFABIO,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

MANISHA JUTHANI, MD, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

1000462-0000466-0000001 of 0000001-C01-a1d00101-0564-00464

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

MICHAEL V DIFABIO

CERTIFICATE NO.
000340

CURRENT THROUGH
12/31/23

VALIDATION NO.
03-009736

SIGNATURE COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
MICHAEL V DIFABIO

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-009736	000340	12/31/23

PROFESSION
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SIGNATURE COMMISSIONER

INSTRUCTIONS:

1. Detach and sign each of the cards on this form
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
MICHAEL V DIFABIO

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-009736	000340	12/31/23

PROFESSION
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SIGNATURE COMMISSIONER

VI. DRAWINGS

VII. PHOTOGRAPHS



Sample core from Roof #1 (Representing all roof sections in scope of contract)



Sample core from Roof #15 (Representing all roof sections in scope of contract)



Sample core from Roof #10 (Representing all roof sections in scope of contract)



Edge/Unit Flashing: Old/original (Black), Newer (Gray)



General Photo of Roof (as seen from Roof #1 looking North over roof #'s 6, 7, & 13)

SECTION 042000 - UNIT MASONRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Clay face brick.
2. Mortar and grout.
3. Embedded flashing.
4. Miscellaneous masonry accessories.

B. Related Requirements:

1. Section 076200 "Sheet Metal Flashing and Trim" for exposed sheet metal flashing and for furnishing manufactured reglets installed in masonry joints.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For the following:

1. Masonry Units: Show sizes, profiles, coursing, and locations of special shapes.
2. Fabricated Flashing: Detail corner units, end-dam units, and other special applications.

C. Samples: For each type and color of the following:

1. Clay face brick, in the form of straps of five (5) or more bricks.
2. Special brick shapes.
3. Pigmented mortar. Make Samples using same sand and mortar ingredients to be used on Project.
4. Weep vents.
5. Accessories embedded in masonry.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For testing agency.

B. Material Certificates: For each type and size of the following:

1. Masonry units.

a. Include material test reports substantiating compliance with requirements.
b. For brick, include size-variation data verifying that actual range of sizes falls within specified tolerances.
c. For exposed brick, include test report for efflorescence according to ASTM C 67.

2. Cementitious materials. Include brand, type, and name of manufacturer.
3. Preblended, dry mortar mixes. Include description of type and proportions of ingredients.
4. Grout mixes. Include description of type and proportions of ingredients.
5. Anchors, ties, and metal accessories.

C. Mix Designs: For each type of mortar and grout. Include description of type and proportions of ingredients.

1. Include test reports for mortar mixes required to comply with property specification. Test according to ASTM C 109 for compressive strength, ASTM C 1506 for water retention, and ASTM C 91 for air content.
2. Include test reports, according to ASTM C 1019, for grout mixes required to comply with compressive strength requirement.

D. Cold-Weather and Hot-Weather Procedures: Detailed description of methods, materials, and equipment to be used to comply with requirements.

1.6 QUALITY ASSURANCE

A. Testing Agency Qualifications: Qualified according to ASTM C 1093 for testing indicated.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.

B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.

C. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.

D. Deliver preblended, dry mortar mix in moisture-resistant containers. Store preblended, dry mortar mix in delivery containers on elevated platforms in a dry location or in covered weatherproof dispensing silos.

E. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

1.8 FIELD CONDITIONS

A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.

1. Extend cover a minimum of 24 inches down both sides of walls and hold cover securely in place.

B. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least three (3) days after building masonry walls or columns.

C. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.

1. Protect base of walls from rain-splashed mud and from mortar splatter by spreading coverings on ground and over wall surface.
2. Protect sills, ledges, and projections from mortar droppings.
3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.

D. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.

1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F (4 deg C) and higher and will remain so until masonry has dried, but not less than seven (7) days after completing cleaning.

E. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations for Masonry Units: Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from single source from single manufacturer for each product required.

B. Source Limitations for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from single manufacturer for each cementitious component and from single source or producer for each aggregate.

2.2 UNIT MASONRY, GENERAL

A. Masonry Standard: Comply with ACI 530.1/ASCE 6/TMS 602, except as modified by requirements in the Contract Documents.

B. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated. Do not use units where such defects will be exposed in the completed Work.

2.3 BRICK

A. General: Provide shapes indicated and as follows, with exposed surfaces matching finish and color of exposed faces of adjacent units:

1. For ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces, provide units without cores or frogs and with exposed surfaces finished.
2. Provide special shapes for applications where stretcher units cannot accommodate special conditions, including those at corners, movement joints, bond beams, sashes, and lintels.
3. Provide special shapes for applications requiring brick of size, form, color, and texture on exposed surfaces that cannot be produced by sawing.
4. Provide special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.

B. Clay Face Brick: Facing brick complying with ASTM C 216.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

    a. The Belden Brick Company, distributed by The Homer C. Godfrey Company
    b. Glen-Gery Corporation, distributed by The Homer C. Godfrey Company
    c. Mack Brick Company
    d. Watsontown Brick
    e. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Grade: SW.
3. Type: FBS.
4. Initial Rate of Absorption: Less than 30 g/30 sq. in. per minute when tested per ASTM C 67.
5. Efflorescence: Provide brick that has been tested according to ASTM C 67 and is rated "not effloresced."
6. Size (Actual Dimensions): 3-5/8 inches wide by 2¼ inches high by 7-5/8 inches long.
7. Application: Use where brick is exposed unless otherwise indicated.
8. Color and Texture: Tan/Buffblended veneer, to match existing brickwork exactly in color range, texture, and size, where exposed.

2.4 MORTAR AND GROUT MATERIALS

A. Portland Cement: ASTM C 150, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.

1. Alkali content shall not be more than 0.1 percent when tested according to ASTM C114.

B. Hydrated Lime: ASTM C 207, Type S.

C. Mortar Pigments: Natural and synthetic iron oxides and chromium oxides, compounded for use in mortar mixes and complying with ASTM C 979. Use only pigments with a record of satisfactory performance in masonry mortar.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

    a. Davis Colors; **True Tone Mortar Colors**
    b. Lanxess Corporation; **Bayferrox Iron Oxide Pigments**
    c. Solomon Colors, Inc.; **SGS Mortar Colors**
    d. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

D. Colored Cement Products: Packaged blend made from Portland cement and hydrated lime and mortar pigments, all complying with specified requirements, and containing no other ingredients.

1. Colored Portland Cement-Lime Mix:

a. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

1) Capital Materials Corporation; **Riverton Portland Cement Lime Custom Color**
2) Holcim (US) Inc.; **Rainbow Mortamix Custom Color Cement/Lime**
3) Lafarge North America Inc.; **Eaglebond Portland & Lime**
4) Lehigh Cement Company; **Lehigh Custom Color Portland/Lime Cement**
5) Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Formulate blend as required to produce color indicated or, if not indicated, as selected from manufacturer's standard colors.
3. Pigments shall not exceed ten percent (10%) of Portland cement by weight.

E. Aggregate for Mortar: ASTM C 144.

1. For mortar that is exposed to view, use washed aggregate consisting of natural sand or crushed stone.
2. For joints less than ¼-inch-thick, use aggregate graded with one hundred percent (100%) passing the No. 16 sieve.
3. White-Mortar Aggregates: Natural white sand or crushed white stone.

F. Aggregate for Grout: ASTM C 404.

G. Water: Potable.

2.5 EMBEDDED FLASHING MATERIALS

A. Metal Flashing: Provide metal flashing complying with Section 076200 "Sheet Metal Flashing and Trim".

B. Flexible Flashing: Use the following unless otherwise indicated:

1. Copper-Laminated Flashing: 5-oz./sq. ft. copper sheet bonded between two (2) layers of glass-fiber cloth. Use only where flashing is fully concealed in masonry.

a. Basis-of-Design:

1) York Manufacturing, Inc.; **Multi-Flash 500**

b. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

1) Advanced Building Products Inc.
2) Sandell Moisture Protection Systems, a Hohmann & Barnard Company
3) Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

C. Application: Unless otherwise indicated, use the following:

1. Where flashing is indicated to receive counterflashing, use metal flashing.
2. Where flashing is indicated to be turned down at or beyond the wall face, use metal flashing.
3. Where flashing is partly exposed and is indicated to terminate at the wall face, use metal flashing or flexible flashing with a metal drip edge.
4. Where flashing is fully concealed, use flexible flashing, type as indicated on Drawings.

D. Adhesives, Primers, and Seam Tapes for Flashings: Flashing manufacturer's standard products or products recommended by flashing manufacturer for bonding flashing sheets to each other and to substrates.

2.6 MISCELLANEOUS MASONRY ACCESSORIES

A. Weep Vent Products: Use the following unless otherwise indicated:

1. Cellular Plastic Weep Vent: One-piece, flexible extrusion made from UV-resistant polypropylene copolymer, full height and width of head joint and depth 1/8-inch less than depth of outer wythe, in color selected by Architect and Owner from manufacturer's entire range.

a. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

1) Advanced Building Products Inc.; **Mortar Maze weep vent**
2) Heckmann Building Products Inc.; **No. 85 Cell Vent**
3) Hohmann & Barnard, Inc.; **Quadro-Vent**
4) Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2.7 MASONRY CLEANERS

A. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Diedrich Technologies, Inc.
b. EaCo Chem, Inc.
c. ProSoCo, Inc.
d. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2.8 MORTAR AND GROUT MIXES

A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures, unless otherwise indicated.

1. Do not use calcium chloride in mortar or grout.
2. Use Portland cement-lime mortar unless otherwise indicated.

B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.

C. Mortar for Unit Masonry: Comply with ASTM C 270, Property Specification. Provide the following types of mortar for applications stated unless another type is indicated.

1. For exterior, above-grade, load-bearing and non-load-bearing walls and parapet walls; for interior load-bearing walls; for interior non-load-bearing partitions; and for other applications where another type is not indicated, use Type N.

D. Pigmented Mortar: Use colored cement product.

1. Application: Use pigmented mortar for exposed mortar joints with the following units:

a. Face brick.

E. Grout for Unit Masonry: Comply with ASTM C 76.

1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with Table 1.15.1 in ACI 530.1/ASCE 6/TMS 602 for dimensions of grout spaces and pour height.
2. Proportion grout in accordance with ASTM C 476, Table 1.
3. Provide grout with a slump of 8 to 11 inches as measured according to ASTM C 143.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of work.
2. Verify that substrates are free of substances that impair mortar bond.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

A. Thickness: Build cavity and composite walls and other masonry construction to full thickness shown. Build single-wythe walls to actual widths of masonry units, using units of widths indicated.

B. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.

C. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures. Mix units from several pallets or cubes as they are placed.

D. **Matching Existing Masonry: Match coursing, bonding, color, and texture of existing masonry and mortar where exposed.**

3.3 TOLERANCES

A. Dimensions and Locations of Elements:

1. For dimensions in cross section or elevation do not vary by more than plus ½-inch or minus ¼-inch.
2. For location of elements in plan do not vary from that indicated by more than plus or minus ½-inch.
3. For location of elements in elevation do not vary from that indicated by more than plus or minus ¼-inch in a story height or ½-inch total.

B. Lines and Levels:

1. For bed joints and top surfaces of bearing walls do not vary from level by more than ¼-inch in 10 feet, or ½-inch maximum.
2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8-inch in 10 feet, ¼-inch in 20 feet, or ½-inch maximum.
3. For vertical lines and surfaces do not vary from plumb by more than ¼-inch in 10 feet, 3/8-inch in 20 feet, or ½-inch maximum.
4. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8-inch in 10 feet, ¼-inch in 20 feet, or ½-inch maximum.
5. For lines and surfaces do not vary from straight by more than ¼-inch in 10 feet, 3/8-inch in 20 feet, or ½-inch maximum.
6. For vertical alignment of exposed head joints, do not vary from plumb by more than ¼-inch in 10 feet, or ½-inch maximum.
7. For faces of adjacent exposed masonry units, do not vary from flush alignment by more than 1/16-inch except due to warpage of masonry units within tolerances specified for warpage of units.

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8-inch, with a maximum thickness limited to ½-inch.
2. For exposed bed joints, do not vary from bed-joint thickness of adjacent courses by more than 1/8-inch.
3. For head and collar joints, do not vary from thickness indicated by more than plus 3/8-inch or minus ¼-inch.
4. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8-inch. Do not vary from adjacent bed-joint and head-joint thicknesses by more than 1/8-inch.
5. For exposed bed joints and head joints of stacked bond, do not vary from a straight line by more than 1/16-inch from one (1) masonry unit to the next.

3.4 LAYING MASONRY WALLS

A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.

B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in running bond; do not use units with less than nominal 4-inch horizontal face dimensions at corners or jambs.

C. Stopping and Resuming Work: Stop work by racking back units in each course from those in course below; do not tooth. When resuming work, clean masonry surfaces that are to receive mortar, remove loose masonry units and mortar, and wet brick if required before laying fresh masonry.

D. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.

3.5 MORTAR BEDDING AND JOINTING

A. Lay hollow brick as follows:

1. Bed face shells in mortar and with head joints of depth equal to bed joints.
2. Bed webs in mortar in grouted masonry.
3. Fully bed units and fill cells with mortar.

B. Lay solid masonry units with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.

C. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.

3.6 CONTROL AND EXPANSION JOINTS

A. General: Install control and expansion joint materials in unit masonry as masonry progresses. Do not allow materials to span control and expansion joints without provision to allow for in-plane wall or partition movement.

B. Form expansion joints in brick as follows:

1. Build flanges of factory-fabricated, expansion-joint units into masonry.
2. Form open joint full depth of brick wythe and of width indicated, but not less than 3/8-inch for installation of sealant and backer rod specified in Section 079200 "Joint Sealants."

3.7 FLASHING, WEEP HOLES, CAVITY DRAINAGE, AND VENTS

A. General: Install embedded flashing and weep vents in masonry where indicated.

B. Install flashing as follows unless otherwise indicated:

1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on sloping bed of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing with adhesive, sealant, or tape as recommended by flashing manufacturer.
2. At multi-wythe masonry walls, including cavity walls, extend flashing through outer wythe, turned up a minimum of 8 inches, and 1½ inches into the inner wythe.
3. Install metal drip edges beneath flexible flashing at exterior face of wall. Stop flexible flashing ½-inch back from outside face of wall and adhere flexible flashing to top of metal drip edge.
4. Cut flexible flashing off flush with face of wall after masonry wall construction is completed.

C. Install weep vents in exterior wythes and veneers in head joints of first course of masonry immediately above embedded flashing and as follows:

1. Use specified products to form weep vents.
2. Space weep vents 24 inches o.c. unless otherwise indicated.

3.8 FIELD QUALITY CONTROL

A. Testing and Inspecting: Owner will engage special inspectors to perform tests and inspections and prepare reports. Allow inspectors access to scaffolding and work areas as needed to perform tests and inspections. Retesting of materials that fail to comply with specified requirements shall be done at Contractor's expense.

B. Inspections: Special inspections according to Level B in TMS 402/ACI 530/ASCE 5.

1. Begin masonry construction only after inspectors have verified proportions of site-prepared mortar.
2. Place grout only after inspectors have verified compliance of grout spaces and of grades, sizes, and locations of reinforcement.
3. Place grout only after inspectors have verified proportions of site-prepared grout.

C. Testing Prior to Construction: One (1) set of tests.

D. Clay Masonry Unit Test: For each type of unit provided, according to ASTM C 67 for compressive strength.

E. Mortar Aggregate Ratio Test (Proportion Specification): For each mix provided, according to ASTM C 780.

F. Mortar Test (Property Specification): For each mix provided, according to ASTM C 780. Test mortar for mortar air content and compressive strength.

G. Grout Test (Compressive Strength): For each mix provided, according to ASTM C 1019.

3.9 REPAIRING, POINTING, AND CLEANING

A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Install new units to match adjoining units; install in fresh mortar, pointed to eliminate evidence of replacement.

B. Pointing: During the tooling of joints, enlarge voids and holes, except weep vents, and completely fill with mortar. Point up joints, including corners, openings, and adjacent construction, to provide a neat, uniform appearance. Prepare joints for sealant application, where indicated.

C. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.

D. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:

1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.

3. Protect adjacent stone and non-masonry surfaces from contact with cleaner by covering them with liquid strippable masking agent or polyethylene film and waterproof masking tape.
4. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.
5. Clean masonry with a proprietary acidic cleaner applied according to manufacturer's written instructions.

3.10 MASONRY WASTE DISPOSAL

A. Salvageable Materials: Unless otherwise indicated, excess masonry materials are Contractor's property. At completion of unit masonry work, remove from Project site.

B. Excess Masonry Waste: Remove excess clean masonry waste that cannot be used as fill, as described above or recycled, and other masonry waste, and legally dispose of off Owner's property.

END OF SECTION 042000

SECTION 053100 - STEEL DECKING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The General Documents, as listed on the Table of Contents, and applicable parts of Division 01 General Requirements shall be included in and made a part of this Section.

1.2 SUMMARY

A. Section Includes:

1. Steel decking includes roof deck types. Provide all edge and end closures, deck support angles at columns, butt strips, ridge, and valley plates, reinforcing angles, recessed sump pans, cell closures, composite finish strips and pour stops.

B. Related Sections:

1. Section 012100 “Allowances” for work of this Section included in allowances.
2. Section 012200 “Unit Prices” for work of this Section included in unit prices.

1.3 QUALITY ASSURANCE

A. Codes and Standards: Comply with provisions of the following codes and standards, except as otherwise shown or specified:

1. AISI "Specification for the Design of Cold-Formed Steel Structural Members".
2. AWS "Structural Welding Code".
3. SDI "Design Manual for Floor Decks and Roof Decks".

B. Qualification of Field Welding: Qualify welding processes and welding operators in accordance with AWS "Standard Qualification Procedure".

C. Completed decking in place is subject to inspection and testing. Expense of removing and replacing portions of decking for testing purposes will be borne by Owner if welds are found to be satisfactory. Remove work found to be defective and replace with new acceptable work.

1.4 SUBMITTALS

A. Product Data: Submit manufacturer's specifications showing physical properties and installation instructions for each type of decking and accessories. Include manufacturer's certification as may be required to show compliance with these specifications.

B. Shop Drawings:

1. Submit shop drawings of all members to be furnished. Detail drawings of the members and their connections shall follow standard practice as set forth in the AISC "Manual of Structural Steel Detailing" (Second Edition). In particular, welding shall be shown, using standard AWS welding symbols. Show on detail drawings the paint to be used.
2. Shop drawings will not be reviewed unless accompanied by erection drawings which locates and identifies the members. Copies or reproductions of contract drawings will not be accepted or reviewed as shop drawings.

PART 2 - PRODUCTS

2.1 MATERIALS: Steel for Galvanized Metal Deck Units: ASTM A 653 coating class G-60, Minimum yield point, Fy = 33ksi.

A. Roof Decking: To match existing but as a minimum:

1. 1½-inch-wide rib, galvanized steel deck with nesting flat side laps, formed from hot dipped galvanized steel sheets. Minimum section properties as follows:

Gage	Ip (in4)	In (in4)	Sp (in3)	Sn (in3)
20	0.22	0.24	0.25	0.26

B. Miscellaneous Steel Shapes: ASTM A 36.

C. Sheet Metal Accessories: ASTM A 526, commercial quality galvanized.

D. Galvanizing Repair Paint: High zinc-dust content paint for repair of damaged galvanized surfaces complying with Military Specifications MIL-P-21035 (Ships).

E. Galvanizing: ASTM A 653, G60.

PART 3 - EXECUTION

3.1 INSPECTION

A. Installer must examine areas and conditions under which metal decking is to be installed and notify Contractor in writing of conditions detrimental to proper and timely completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to installer.

3.2 INSTALLATION

A. General: Install deck units and accessories in accordance with manufacturer's recommendations and final shop drawings, and as specified herein.

B. Do not use roof deck units for storage or working platforms until permanently secured.

C. Shop drawings shall fully address all edge conditions and pour stops, including overhangs, as described in structural and architectural details.

D. Fastening Deck Units: Welding of roof deck shall not be permitted.

1. Roof decks (1½-inch-depth) shall be pneumatically fastened in place 12 inches o.c. using Hilti pneumatic fasteners, (or equal), with a 36/4 fastening pattern (unless otherwise indicated on the Drawings). Mechanically fasten side laps of adjacent deck units between supports, at intervals not exceeding 18 inches o.c., using plated self-tapping No. 10-14 screws, with a minimum of four (4) #10 plated self-tapping screws per span.

E. Cutting and Fitting: Cut neatly and fit deck units and accessories around other work projecting through or adjacent to the decking, as shown.

F. Reinforcement at Openings: Provide additional metal reinforcement and closure pieces as required for strength, continuity of decking, and to provide support for concrete and other work shown.

G. Roof Sump Pans: Place over openings provided in roof decking and weld to top decking surface. Space welds not more than 12 inches o.c. with at least one (1) weld at each corner. Cut opening in roof sump bottom to accommodate drain size indicated.

H. Touch-up Painting: After decking installation, wire brush, clean and paint scarred areas, rust spots on top and bottom surfaces of roof decking units and supporting steel members.

1. Touch-up galvanized surfaces with galvanized repair paint applied in accordance with manufacturer's instructions.

END OF SECTION 053100

SECTION 055000 - METAL FABRICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Metal ladders.

1.3 ACTION SUBMITTALS

A. Product Data: For the following:

1. Nonslip aggregates and nonslip-aggregate surface finishes.
2. Fasteners.

B. Shop Drawings: Show fabrication and installation details. Include plans, elevations, sections, and details of metal fabrications and their connection. Show anchorage and accessory items.

C. Provide Shop Drawings for the following:

1. Metal ladders.

D. Delegated-Design Submittal: For ladders, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For professional engineer's experience with providing delegated-design engineering services of the kind indicated, including documentation that engineer is licensed in the jurisdiction in which Project is located.

B. Welding certificates.

C. Research Reports: For post-installed anchors.

1.5 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel in accordance with the following:

1. AWS D1.1, "Structural Welding Code - Steel."

1.6 FIELD CONDITIONS

A. Field Measurements: Verify actual locations of walls, floor slabs, decks, and other construction contiguous with metal fabrications by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design ladders.

B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on exterior metal fabrications by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 METALS

A. Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.

B. Steel Plates, Shapes, and Bars: ASTM A 36.

C. Steel Tubing: ASTM A 500, cold-formed steel tubing.

D. Steel Pipe: ASTM A 53, Standard Weight (Schedule 40) unless otherwise indicated.

2.3 FASTENERS

A. General: Unless otherwise indicated, provide Type 304 stainless-steel fasteners for exterior use and zinc-plated fasteners with coating complying with ASTM B633 or ASTM F 1941, Class Fe/Zn 5, at exterior walls. Select fasteners for type, grade, and class required.

B. Steel Bolts and Nuts: Regular hexagon-head bolts, ASTM A 307, Grade A; with hex nuts, ASTM A 563; and, where indicated, flat washers.

C. Stainless-Steel Bolts and Nuts: Regular hexagon-head annealed stainless steel bolts, ASTM F 593; with hex nuts, ASTM F 594; and, where indicated, flat washers; Alloy Group 1.

D. Anchor Bolts: ASTM F1554, Grade 36, of dimensions indicated; with nuts, ASTM A 563; and, where indicated, flat washers.

1. Hot-dip galvanize or provide mechanically deposited, zinc coating where item being fastened is indicated to be galvanized.

E. Anchors, General: Capable of sustaining, without failure, a load equal to six (6) times the load imposed when installed in unit masonry and four (4) times the load imposed when installed in concrete, as determined by testing in accordance with ASTM E 488, conducted by a qualified independent testing agency.

F. Post-Installed Anchors: Torque-controlled expansion anchors.

1. Material for Exterior Locations and Where Stainless-Steel Is Indicated: Alloy Group 1 stainless-steel bolts, ASTM F 593, and nuts, ASTM F 594.

2.4 MISCELLANEOUS MATERIALS

A. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.

B. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.

2.5 FABRICATION, GENERAL

A. Shop Assembly: Preassemble items in the shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.

B. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32-inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.

C. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.

D. Form exposed work with accurate angles and surfaces and straight edges.

E. Weld corners and seams continuously to comply with the following:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

F. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners or welds where possible. Where exposed fasteners are required, use Phillips flat-head (countersunk) fasteners unless otherwise indicated. Locate joints where least conspicuous.

G. Fabricate seams and other connections that are exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.

H. Cut, reinforce, drill, and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.

I. Provide for anchorage of type indicated, coordinate with supporting structure. Space anchoring devices to secure metal fabrications rigidly in place and to support indicated loads.

2.6 METAL LADDERS

A. General:

1. Comply with ANSI A14.3.

B. Steel Ladders:

1. Space siderails 18 inches apart unless otherwise indicated.
2. Siderails: Continuous, 1½-inch-diameter steel pipe.

3. Rungs: 1¼ inch-diameter steel bars.
4. Fit rungs in centerline of siderails; plug-weld and grind smooth on outer rail faces.
5. Provide nonslip surfaces on top of each rung, either by coating rung with aluminum-oxide granules set in epoxy-resin adhesive or by using a type of manufactured rung filled with aluminum-oxide grout.
6. Support each ladder at top and bottom and not more than 60 inches o.c. with welded or bolted steel brackets.
7. Galvanize ladders, including brackets.

2.7 GENERAL FINISH REQUIREMENTS

A. Finish metal fabrications after assembly.

B. Finish exposed surfaces to remove tool and die marks and stretch lines, and to blend into surrounding surface.

2.8 STEEL AND IRON FINISHES

A. Galvanizing: Hot-dip galvanize items as indicated to comply with ASTM A 153 for steel and iron hardware and with ASTM A 123 for other steel and iron products.

1. Do not quench or apply post galvanizing treatments that might interfere with paint adhesion.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.

B. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.

C. Field Welding: Comply with the following requirements:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

D. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag screws, wood screws, and other connectors.

3.2 REPAIRS

A. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A 780.

END OF SECTION 055000

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Rooftop equipment bases and support curbs.
2. Wood blocking and nailers.

1.3 DEFINITIONS

A. Boards or Strips: Lumber of less than 2 inches nominal size in least dimension.

B. Lumber grading agencies, and the abbreviations used to reference them, include the following:

1. NeLMA: Northeastern Lumber Manufacturers' Association.
2. NLGA: National Lumber Grades Authority.
3. WCLIB: West Coast Lumber Inspection Bureau.
4. WWPA: Western Wood Products Association.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
2. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

1.5 INFORMATIONAL SUBMITTALS

A. Evaluation Reports: For the following, from ICC-ES:

1. Wood-preservative-treated wood.
2. Power-driven fasteners.
3. Post-installed anchors.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Stack wood products flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.

B. Maximum Moisture Content of Lumber: Fifteen percent (15%) unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED LUMBER

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with the ground, Use Category UC3b for exterior construction not in contact with the ground, and Use Category UC4a for items in contact with the ground.

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

B. Kiln-dry lumber after treatment to a maximum moisture content of fifteen percent (15%). Do not use material that is warped or that does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

D. Application: Treat items indicated on Drawings, and the following:

1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
2. Wood sills, sleepers, blocking, furring, stripping and similar concealed members in contact with masonry or concrete.

2.3 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.

B. Dimension Lumber Items: Standard, Stud, or No. 3 grade lumber of any of the following species:

1. Hem-fir (north); NLGA.
2. Hem-fir; WCLIB or WWPA.
3. Spruce-pine-fir (south); NeLMA, WCLIB, or WWPA.

C. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.

D. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

2.4 FASTENERS

A. General: Fasteners shall be of size and type indicated and shall comply with requirements specified in this article for material and manufacture.

1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of Type 304 stainless-steel.

B. Nails, Brads, and Staples: ASTM F 1667.

C. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

D. Post-Installed Anchors: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01 or ICC-ES AC193 as appropriate for the substrate.

1. Material: Stainless-steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2.

2.5 MISCELLANEOUS MATERIALS

A. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, rubberized-asphalt compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.025-inch.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.

B. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry accurately to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.

C. Do not splice structural members between supports unless otherwise indicated.

D. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.

E. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

F. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

1. Use copper naphthenate for items not continuously protected from liquid water.

G. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.

H. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code (IBC).
2. ICC-ES evaluation report for fastener.

I. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

3.2 WOOD BLOCKING AND NAILER INSTALLATION

A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.

B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.

END OF SECTION 061000

SECTION 070150.19 - PREPARATION FOR REROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Full tear-off of roof system at areas indicated on Drawings.
2. Removal of flashings and counterflashings.

B. Related Requirements:

1. Section 011000 "Summary of Work" for use of the premises and phasing requirements.
2. Section 015000 "Temporary Facilities and Controls" for temporary construction and environmental-protection measures for reroofing preparation.

1.3 DEFINITIONS

A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.

B. Full Roof Tear-Off: Removal of existing roofing system down to existing roof deck.

1.4 PREINSTALLATION MEETINGS

A. Preliminary Roofing Conference: Before starting removal work, conduct conference at Project site.

1. Meet with Owner; Architect; Owner's insurer if applicable; testing and inspecting agency representative; roofing system manufacturer's representative; roofing Installer, including project manager, superintendent, and foreman; and installers whose work interfaces with or affects reroofing, including installers of roof deck, roof accessories, and roof-mounted equipment.
2. Review methods and procedures related to roofing tear-off, including, but not limited to, the following:

a. Reroofing preparation, including roofing system manufacturer's written instructions.
b. Temporary protection requirements for existing roofing system components that are to remain.
c. Existing roof drains and roof drainage during each stage of reroofing, and roof-drain plugging and plug removal.
d. Construction schedule and availability of materials, Installer's personnel, equipment, and facilities needed to avoid delays.
e. Existing roof deck conditions requiring notification of Architect.
f. Existing roof deck removal procedures and Owner notifications.
g. Condition and acceptance of existing roof deck and base flashing substrate for reuse.

h. Structural loading limitations of roof deck during reroofing.
i. Base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that affect reroofing.
j. HVAC shutdown and sealing of air intakes.
k. Shutdown of fire-suppression, -protection, and -alarm and -detection systems.
l. Governing regulations and requirements for insurance and certificates if applicable.
m. Existing conditions that may require notification of Architect before proceeding.

B. Comply with additional requirements in Section 013100 “Project Management and Coordination”.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.6 INFORMATIONAL SUBMITTALS

A. Field Test Reports:

1. Fastener pull-out test report.

B. Photographs: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces, that might be misconstrued as having been damaged by reroofing operations.

1. Submit before Work begins.

C. Landfill Records: Indicate receipt and acceptance of demolished roofing materials by a landfill facility licensed to accept them.

1.7 CLOSEOUT SUBMITTALS

A. Certified statement from manufacturer for existing warranted roof system stating that existing roof warranty has not been affected by Work performed under this Section.

1.8 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Comply with governing EPA notification regulations before beginning roofing removal.
2. Comply with hauling and disposal regulations of authorities having jurisdiction.

1.9 FIELD CONDITIONS

A. Existing Roofing System: Modified bitumen roofing.

B. Owner will occupy portions of building adjacent to reroofing area.

1. Conduct reroofing so Owner's operations are not disrupted.
2. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.
3. Coordinate work activities daily with Owner so Owner has adequate advance notice to place protective dust and water-leakage covers over sensitive equipment and furnishings,

shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below work area.

4. Before working over structurally impaired areas of deck, notify Owner to evacuate occupants from below affected area.

    a. Verify that occupants below work area have been evacuated before proceeding with work over impaired deck area.

C. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.

D. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.

E. Conditions existing at time of inspection for bidding are maintained by Owner as far as practical.

F. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.

1. Remove only as much roofing in one (1) day as can be made watertight in the same day.

G. Hazardous Materials: It is not expected that hazardous materials, such as asbestos-containing materials, will be encountered in the Work.

1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner.

    a. Hazardous materials will be removed by Owner under a separate contract.

1.10 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during reroofing, by methods and with materials so as not to void existing roofing system warranty.

1. Notify warrantor before proceeding with the Work.
2. Notify warrantor of existing roofing system on completion of reroofing, and obtain documentation verifying that existing roofing system has been inspected and warranty remains in effect.

    a. Submit documentation at Project closeout.

PART 2 - PRODUCTS

2.1 REPLACEMENT MATERIALS

A. Steel deck is specified in Section 053100 "Steel Decking."

B. Wood blocking, curbs, and nailers are specified in Section 061000 "Rough Carpentry."

2.2 AUXILIARY REROOFING MATERIALS

A. General: Use auxiliary reroofing preparation materials recommended by roofing system manufacturer for intended use and compatible with components of existing and new roofing system.

PART 3 - EXECUTION

3.1 PREPARATION

A. Seal or isolate windows that may be exposed to airborne substances created in removal of existing materials.

B. Shut off rooftop utilities and service piping before beginning the Work.

C. Test existing roof drains to verify that they are not blocked or restricted.

1. Immediately notify Architect of any blockages or restrictions.

D. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work.

1. Cover air-intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.

E. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.

F. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday.

1. Prevent debris from entering or blocking roof drains and conductors.

a. Use roof-drain plugs specifically designed for this purpose.
b. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.

2. If roof drains are temporarily blocked or unserviceable due to roofing system removal or partial installation of new roofing system, provide alternative drainage method to remove water and eliminate ponding.

a. Do not permit water to enter into or under existing roofing system components that are to remain.

3.2 ROOF TEAR-OFF

A. Notify Owner each day of extent of roof tear-off proposed for that day and obtain authorization to proceed.

B. Lower removed roofing materials to ground and onto lower roof levels, using dust-tight chutes or other acceptable means of removing materials from roof areas.

C. Remove loose aggregate from aggregate-surfaced, built-up bituminous roofing using a power broom.

D. Full Roof Tear-Off: Where indicated on Drawings, remove existing roofing and other roofing system components down to the existing roof deck.

1. Remove substrate board, vapor retarder, underlayment, roof insulation and cover board.
2. Remove base flashings and counter flashings.
3. Remove perimeter edge flashing and gravel stops.
4. Remove copings.
5. Remove flashings at pipes, curbs, mechanical equipment, and other penetrations.
6. Remove roof drains indicated on Drawings to be removed.
7. Remove wood blocking, curbs, and nailers.

8. Remove fasteners from deck.

3.3 DECK PREPARATION

A. Inspect deck after tear-off of roofing system.

B. If broken or loose fasteners that secure deck panels to one another or to structure are observed, or if deck appears or feels inadequately attached, immediately notify Architect.

1. Do not proceed with installation until directed by Architect.

C. If deck surface is unsuitable for receiving new roofing or if structural integrity of deck is suspect, immediately notify Architect.

1. Do not proceed with installation until directed by Architect.

D. Provide additional deck securement as recommended by manufacturer.

E. Replace decking as directed by Architect. Deck replacement will be paid for by adjusting the Contract Sum according to unit prices included in the Contract Documents.

F. Prepare and paint steel deck surface. Painting and preparation for painting is specified in Section 099113 "Exterior Painting."

3.4 BASE FLASHING REMOVAL

A. Remove existing base flashings.

1. Clean substrates of contaminants, such as asphalt, sheet materials, dirt, and debris.

B. Do not damage metal counterflashings that are to remain.

1. Replace metal counterflashings damaged during removal with counterflashings specified in Section 076200 "Sheet Metal Flashing and Trim."

C. When directed by Architect, replace wood blocking, curbs, and nailers to comply with Section 061000 "Rough Carpentry."

3.5 FASTENER PULL-OUT TESTING

A. Retain independent testing and inspecting agency to conduct fastener pull-out tests according to Chapter 16 of the International Building Code and submit test report to Architect and roofing manufacturer before installing new roofing system.

1. Obtain Architect's and roofing manufacturer's approval to proceed with specified fastening pattern.

    a. Architect and roofing manufacturer may furnish revised fastening pattern commensurate with pull-out test results.

3.6 DISPOSAL

A. Collect demolished materials and place in containers.

1. Promptly dispose of demolished materials.
2. Do not allow demolished materials to accumulate on-site.
3. Storage or sale of demolished items or materials on-site is not permitted.

B. Transport and legally dispose of demolished materials off Owner's property.

END OF SECTION 070150.19

SECTION 075216 - STYRENE-BUTADIENE-STYRENE (SBS) MODIFIED BITUMINOUS MEMBRANE ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Styrene-butadiene-styrene (SBS) modified bituminous membrane roofing.
2. Cover boards.
3. Vapor retarder.
4. Roof insulation.
5. Walkways.

B. Related Sections:

1. Section 012300 “Alternates” for work of this Section included in alternates.
2. Section 061000 "Rough Carpentry" for wood nailers, curbs, and blocking.
3. Section 076200 "Sheet Metal Flashing and Trim" for metal roof flashings and counterflashings.
4. Section 077100 "Roof Specialties" for premanufactured roof edge fasciae and gravel stops.
5. Section 077129 "Manufactured Roof Expansion Joints" for proprietary manufactured roof expansion-joint assemblies.
6. Section 079200 "Joint Sealants" for joint sealants, joint fillers, and joint preparation.
7. Section 221423 "Storm Drainage Piping Specialties" for roof drains.

1.3 DEFINITIONS

A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing Manual: Membrane Roof Systems" apply to Work of this Section.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Roofing Conference: Conduct conference at Project site. **Refer to Section 070150.19 “Preparation for Reroofing” for additional items.**

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: Include plans, sections, details, and attachments to other work, including the following:

1. Layout and thickness of insulation.
2. Base flashings and membrane terminations.
3. Flashing details at penetrations.

4. Tapered insulation, including slopes.
5. Roof plan showing orientation of steel roof deck and orientation of roof membrane, fastening spacings, and patterns for mechanically fastened roofing system.
6. Crickets, saddles, and tapered edge strips, including slopes.
7. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.

C. Samples: For the following products:

1. Sheet roofing materials, including roofing membrane base sheet, flashing backer sheet, membrane cap sheet and flashing sheet, of color specified.
2. Roof insulation.
3. Walkway pads or rolls, of color required.
4. Six (6) insulation fasteners of each type, length, and finish.

D. Wind Uplift Resistance Submittal: For roofing system indicating compliance with wind uplift performance requirements.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer, manufacturer, and testing agency.

B. Manufacturer Certificates:

1. Performance Requirement Certificate: Signed by roof membrane manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.

a. Submit evidence of complying with performance requirements.

2. Special Warranty Certificate: Signed by roof membrane manufacturer, certifying that all materials supplied under this Section are acceptable for special warranty.

C. Product Test Reports: For roof membrane and insulation, tests performed by a qualified testing agency, indicating compliance with specified requirements.

D. Evaluation Reports: For components of membrane roofing system, from ICC-ES.

E. Field quality-control reports.

F. Sample Warranties: For manufacturer’s special warranties.

1.7 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roofing system to include in maintenance manuals.

1.8 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer that is UL listed for roofing system identical to that used for this Project.

B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer.

1. Protect stored liquid material from direct sunlight.
2. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources.

1. Store in a dry location.
2. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

1.10 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.11 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.

1. Special warranty is fully inclusive of all membrane roofing, base flashings, roof insulation, fasteners, cover boards, roofing accessories, metal flashings, roof drainage fabrications, and other components of roofing system for an edge-to-edge warranty.
2. Warranty Period: Thirty (30) years, non-prorated, no-dollar-limit, from date of Substantial Completion.

B. Roofing Installer's Warranty: Signed by Installer, in which Installer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Two (2) years from date of Substantial Completion.

C. Provide self-adhesive emblems for each roof hatch, door, or access way, notifying the user of the roof condition, precautionary measures and other conditions of use or maintenance of the roofing membranes.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. CertainTeed Corp.
2. Elevate Building Products, a Holcim company
3. GAF Materials Corporation
4. Garland Company, Inc. (The)
5. Johns Manville, a Berkshire Hathaway company
6. Siplast, Inc.
7. Soprema US
8. Tremco Incorporated
9. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

B. Source Limitations: Obtain components for roofing system from roof membrane manufacturer or manufacturer approved by roof membrane manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing system and flashings shall remain watertight.

1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
2. Impact Resistance: Roofing system shall resist impact damage when tested according to ASTM D 3746 or ASTM D 4272, or the "Resistance to Foot Traffic Test" in FM Approvals 4470.

B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roof membrane manufacturer based on testing and field experience.

C. Roofing System Design: Tested by a qualified testing agency to resist the uplift requirements as indicated on the Drawings.

D. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class C; for application and roof slopes indicated; testing by a qualified testing agency.

1. Identify products with appropriate markings of applicable testing agency.

E. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated.

1. Identify products with appropriate markings of applicable testing agency.

2.3 ROOFING SHEET MATERIALS

A. Roofing Membrane Base Sheet: ASTM D 6163, Grade S, Type I or II, SBS-modified asphalt sheet (reinforced with glass fiber fabric); smooth surfaced; suitable for application method specified.

B. Granule-Surface Roofing Membrane Cap Sheet: ASTM D 6164, Grade G, Type I, SBS-modified asphalt sheet (reinforced with polyester fabric); granular surfaced; suitable for application method specified, and as follows:

1. Sheet Color: White
2. Granule Color: White.

2.4 BASE FLASHING SHEET MATERIALS

A. Backer Sheet: ASTM D 6163, Grade S, Type I or II, SBS-modified asphalt sheet (reinforced with glass fiber fabric) smooth surfaced; suitable for application method specified.

B. Granule-Surfaced Flashing Sheet: ASTM D 6164, Grade G, Type I, SBS-modified asphalt sheet (reinforced with polyester fabric) granular surfaced; suitable for application method specified, and as follows:

1. Sheet Color: White.
2. Granule Color: As selected by Architect and Owner from manufacturer's entire range, to match cap sheet.

2.5 ACCESSORY ROOFING MATERIALS

A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing membrane.

1. Adhesives and Sealants: Comply with VOC limits of authorities having jurisdiction.

B. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer.

C. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1-by-1/8-inch-thick; with anchors.

D. Cold-Applied Asphalt Adhesive: ASTM D 3019, Type III, roof membrane manufacturer's standard asphalt-based, one- or two-part, asbestos-free, cold-applied adhesive, specially formulated for compatibility and use with roofing membrane and base flashings.

E. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required by roofing system manufacturer for application.

F. Mastic Sealant: Polyisobutylene, plain or modified bitumen; nonhardening, nonmigrating, non-skinning, and nondrying.

G. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roofing components to substrate; tested by manufacturer for required pullout strength, and acceptable to roofing system manufacturer.

H. Roofing Granules: Ceramic-coated roofing granules, No. 11 screen size with one hundred percent (100%) passing No. 8 sieve and ninety-eight percent (98%) of mass retained on No. 40 sieve, color to match roofing membrane.

I. Miscellaneous Accessories: Provide those recommended by roofing system manufacturer.

J. Penetration Flashing: Two-part, liquid-applied flashing material that cures to a durable, elastomeric film. Flashing system consists of primer, flashing cement, and polyester scrim.

1. System must be compatible with roofing membrane system and be part of the warranty.

2.6 SUBSTRATE BOARDS

A. Substrate Board: ASTM C1325, fiber-mat-reinforced cementitious board, 7/16-inch-thick.

1. Basis-of-Design: Johns Manville; **JM DEXcell Cement Roof Board**

2.7 VAPOR RETARDER

A. Rubberized-Asphalt-Sheet Vapor Retarder, Self-Adhering: ASTM D 1970 polyethylene film laminated to layer of rubberized asphalt adhesive, minimum 40-mil total thickness; maximum permeance rating of 0.1 perm; cold applied, with slip-resisting surface and release paper backing. Provide primer when recommended by vapor-retarder manufacturer.

2.8 ROOF INSULATION

A. General: Preformed roof insulation boards manufactured or approved by roof membrane manufacturer.

B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 3, felt or glass-fiber mat facer on both major surfaces.

1. Compressive Strength: 25 psi.

C. Perlite Board Insulation: ASTM C 728, Type 1, rigid, mineral-aggregate thermal insulation board composed of expanded perlite, cellulosic fibers, binders, and waterproofing agents with top surface seal coated.

D. Tapered Insulation: Provide factory-tapered insulation boards.

1. Material: Match roof insulation.
2. Minimum Thickness: ¼-inch.
3. Slope:

a. Roof Field: ¼-inch per foot unless otherwise indicated on Drawings.
b. Saddles and Crickets: ½-inch per foot unless otherwise indicated on Drawings.

2.9 INSULATION ACCESSORIES AND COVER BOARD

A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with roofing.

B. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation to substrate, and acceptable to roofing system manufacturer.

C. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:

1. Modified asphaltic, asbestos-free, cold-applied adhesive.

D. Insulation Adhesive (Decks Exposed from Below): Two-component, polyurethane construction grade, low-rise expanding.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

    a. OMG, Inc.; **OlyBond 500 Spot Shot**
    b. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

E. Insulation Cant Strips: ASTM C 728, perlite insulation board.

F. Wood Nailer Strips: Comply with requirements in Section 061000 "Rough Carpentry."

G. Tapered Edge Strips: ASTM C 728, perlite insulation board.

H. Cover Board: ASTM C 1289, Type II, Class 4, Grade 2, polyisocyanurate board substrate with glass-fiber mat facer on both major surfaces.

2.10 WALKWAYS

A. Walkway Pads: Reinforced asphaltic composition pads with slip-resisting mineral-granule surface, manufactured as a traffic pad for foot traffic and acceptable to roofing system manufacturer, 3/8-inch-thick, minimum.

1. Pad Size: Manufacturer’s standard.
2. Color: In contrasting color of roofing membrane.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work:

1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof-drain bodies are securely clamped in place.
2. Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
3. Verify that surface plane flatness and fastening of steel roof deck complies with requirements in Section 053100 "Steel Decking."

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation in accordance with roofing system manufacturer's written instructions.

1. Remove sharp projections.

B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction.

1. Remove roof-drain plugs when no work is taking place or when rain is forecast.

C. Perform fastener-pullout tests according to roof system manufacturer's recommendations.

1. Submit test result within 24 hours of performing tests.

    a. Include manufacturer's requirements for any revision to previously submitted fastener patterns required to achieve specified wind uplift requirements.

3.3 INSTALLATION, GENERAL

A. Install roofing system according to roofing system manufacturer's written instructions.

B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast.

1. Remove and discard temporary seals before beginning work on adjoining roofing.

C. Substrate-Joint Penetrations: Prevent roofing adhesives from penetrating substrate joints, entering building, or damaging roofing system components or adjacent building construction.

3.4 INSTALLATION OF SUBSTRATE BOARD

A. Install substrate board with long joints in continuous straight lines, with end joints staggered not less than 24 inches in adjacent rows.

1. At steel roof decks, install substrate board at right angle to flutes of deck.

    a. Locate end joints over crests of steel roof deck.

2. Tightly butt substrate boards together.
3. Cut substrate board to fit tight around penetrations and projections, and to fit tight to intersecting sloping roof decks.
4. Loosely butt cover boards together and adhere.

3.5 INSTALLATION OF VAPOR RETARDER

A. Self-Adhering-Sheet Vapor Retarder: Prime substrate if required by manufacturer. Install self-adhering-sheet vapor retarder over area to receive vapor retarder, side and end lapping each sheet a minimum of 3½ and 6 inches, respectively.

1. Extend vertically up parapet walls and projections to a minimum height equal to height of the insulation and cover board.
2. Seal laps by rolling.

B. Completely seal vapor retarder at terminations, obstructions, and penetrations to prevent air movement into roofing system.

3.6 INSULATION INSTALLATION

A. Coordinate installation of roofing system components, so insulation is not exposed to precipitation or left exposed at the end of the workday.

B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.

C. Nailer Strips: Mechanically fasten 4-inch nominal-width wood nailer strips of same thickness as insulation perpendicular to sloped roof deck at the following spacing:

1. 48 inches apart for roof slopes greater than 3 inches per 12 inches (3:12).

D. Insulation Cant Strips: Install and secure preformed 45-degree insulation cant strips at junctures of roofing membrane system with vertical surfaces or angle changes more than 45 degrees.

E. Install tapered insulation under area of roofing to conform to slopes indicated.

F. Install insulation boards with long joints in a continuous straight line with end joints staggered between rows, abutting edges, and ends between boards. Fill gaps exceeding ¼-inch with insulation.

1. Cut and fit insulation within ¼-inch of nailers, projections, and penetrations.

G. Install insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2.7 inches or more, install two (2) or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches in each direction.

1. Where installing composite and non-composite insulation in two (2) or more layers, install non-composite board insulation for bottom layer and intermediate layers, if applicable, and install composite board insulation for top layer.

H. Trim surface of insulation boards where necessary at roof drains so completed surface is flush and does not restrict flow of water.

I. Install tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.

J. Adhered Insulation (Decks exposed from Below): Install each layer of insulation and adhere to substrate as follows:

1. Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing, and maintaining insulation in place.
2. Mechanically Fastened and Adhered Insulation (Metal Decks): Install first layer of insulation to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.

3. Fasten first layer of insulation to resist uplift pressure at corners, perimeter, and field of roof.
4. Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

K. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints a minimum of 6 inches in each direction from joints of insulation below. Loosely butt cover boards together. Tape joints if required by roofing system manufacturer.

1. Set in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

3.7 ROOFING MEMBRANE INSTALLATION, GENERAL

A. Install roofing system according to roofing system manufacturer's written instructions and applicable recommendations in ARMA/NRCA's "Quality Control Guidelines for the Application of Polymer Modified Bitumen Roofing".

B. Start installation of roofing membrane in presence of roofing system manufacturer's technical personnel.

C. Where roof slope exceeds ¾-inch per 12 inches (1:18), install roofing membrane sheets parallel with slope.

1. Backnail roofing sheets to nailer strips according to roofing system manufacturer's written instructions.

D. Coordinate installation of roofing system so insulation and other components of the roofing system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is forecast.

1. Provide tie-offs at end of each day's work to cover exposed roofing sheets and insulation with a course of coated felt set in roofing cement, with joints and edges sealed.
2. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system.
3. Remove and discard temporary seals before beginning work on adjoining roofing.

3.8 SBS-MODIFIED BITUMINOUS MEMBRANE INSTALLATION

A. Install modified bituminous roofing membrane base sheet and cap sheet according to roofing manufacturer's written instructions, starting at low point of roofing system. Extend roofing membrane sheets over and terminate beyond cants, installing in one (1) of the following ways:

1. Adhere to substrate in a uniform coating of cold-applied adhesive.
2. Unroll roofing membrane sheets and allow them to relax for minimum time period required by manufacturer.

B. Laps: Accurately align roofing membrane sheets, without stretching, and maintain uniform side and end laps. Stagger end laps. Completely bond and seal laps, leaving no voids.

1. Repair tears and voids in laps and lapped seams not completely sealed.

C. Install roofing sheets so side and end laps shed water.

3.9 FLASHING AND STRIPPING INSTALLATION

A. Install base flashing over cant strips and other sloped and vertical surfaces, at roof edges, and at penetrations through roof, and secure to substrates according to roofing system manufacturer's written instructions, and as follows:

1. Prime substrates with asphalt primer if required by roofing system manufacturer.
2. Backer Sheet Application:

a. Adhere backer sheet over roofing membrane at cants in cold-applied adhesive.

3. Flashing Sheet Application: Adhere flashing sheet to substrate in cold-applied adhesive at rate required by roofing system manufacturer.

B. Extend base flashing up walls or parapets a minimum of 8 inches above roofing membrane and 4 inches onto field of roofing membrane.

C. Mechanically fasten top of base flashing securely at terminations and perimeter of roofing.

1. Seal top termination of base flashing.

D. Penetration Flashing: Tape off area to be flashed. Prime protrusion with system approved primer. Apply system base coat. While tacky, embed system polyester scrim. Apply system topcoat. Remove masking tape.

E. Install roofing cap-sheet stripping where metal flanges and edgings are set on roofing according to roofing system manufacturer's written instructions.

F. Roof Drains: Set 30-by-30-inch 4-pound metal flashing in bed of asphaltic adhesive on completed roofing membrane.

1. Cover metal flashing with roofing cap-sheet stripping and extend a minimum of 6 inches beyond edge of metal flashing onto field of roofing membrane.
2. Clamp roofing membrane, metal flashing, and stripping into roof-drain clamping ring.
3. Install stripping according to roofing system manufacturer's written instructions.

3.10 WALKWAY INSTALLATION

A. Walkway Pads: Install walkway pads using units of size indicated or, if not indicated, of manufacturer's standard size according to walkway pad manufacturer's written instructions.

1. Adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

3.11 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified testing agency to inspect substrate conditions, surface preparation, membrane application, flashings, protection, and drainage components, and to furnish reports to Architect.

B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.

1. Notify Architect and Owner 48 hours in advance of date and time of inspection.

C. Roofing system will be considered defective if it does not pass tests and inspections.

1. Additional testing and inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements.

3.12 PROTECTING AND CLEANING

A. Protect roofing system from damage and wear during remainder of construction period.

1. When remaining construction does not affect or endanger roofing, inspect roofing system for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.

B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.

END OF SECTION 075216

SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Formed roof-drainage sheet metal fabrications.
2. Formed low-slope roof sheet metal fabrications.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wood nailers, curbs, and blocking.
2. Section 077200 "Roof Accessories" for equipment supports, roof hatches, vents, and other manufactured roof accessory units.

1.3 COORDINATION

A. Coordinate sheet metal flashing and trim layout and seams with sizes and locations of penetrations to be flashed, and joints and seams in adjacent materials.

B. Coordinate sheet metal flashing and trim installation with adjoining roofing and wall materials, joints, and seams to provide leak-proof, secure, and noncorrosive installation.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.

B. Shop Drawings: For sheet metal flashing and trim.

1. Include plans, elevations, sections, and attachment details.
2. Detail fabrication and installation layouts, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work.
3. Include identification of material, thickness, weight, and finish for each item and location in Project.
4. Include details for forming, including profiles, shapes, seams, and dimensions.
5. Include details for joining, supporting, and securing, including layout and spacing of fasteners, cleats, clips, and other attachments. Include pattern of seams.
6. Include details of termination points and assemblies.
7. Include details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction from fixed points.
8. Include details of roof-penetration flashing.
9. Include details of special conditions.
10. Include details of connections to adjoining work.

11. Detail formed flashing and trim at scale of not less than 3 inches per 12 inches (1:5).

C. Samples: For each type of sheet metal and accessory indicated with factory-applied finishes.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For fabricator.

B. Product Test Reports: For each product, for tests performed by a qualified testing agency.

C. Sample Warranty: For special warranty.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For sheet metal flashing and trim, and its accessories, to include in maintenance manuals.

1.7 QUALITY ASSURANCE

A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.

B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal flashing and trim installation.

1.9 WARRANTY

A. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.

1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:

a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: Twenty (20) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to

defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.

B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.

C. Wind Design Standard: Manufacture and install roof edge flashings tested according to Chapter 16 of the International Building Code and capable of resisting the following design pressure:

1. Design Pressure: As indicated on Drawings.

D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

2.2 SHEET METALS

A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.

B. Aluminum Sheet: ASTM B 209, alloy as standard with manufacturer for finish required, with temper as required to suit forming operations and performance required; with smooth, flat surface.

1. Exposed Coil-Coated Finish:

a. Two-Coat Fluoropolymer: AAMA 620. Fluoropolymer finish containing not less than seventy percent (70%) PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

2. Color: As selected by Architect and Owner from manufacturer's full range, to match existing.

2.3 UNDERLAYMENT MATERIALS

A. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt; nonperforated.

B. Slip Sheet: Rosin-sized building paper, 3 lb./100 sq. ft. minimum.

2.4 MISCELLANEOUS MATERIALS

A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal unless otherwise indicated.

B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal.

1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.

    a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
    b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.

2. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless-steel.

C. Sealant Tape: Pressure-sensitive, one hundred percent (100%) solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, non-sag, nontoxic, non-staining tape ½-inch-wide and 1/8-inch-thick.

D. Elastomeric Sealant: ASTM C 920, elastomeric polysulfide polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.

E. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.

F. Bituminous Coating: Cold-applied asphalt emulsion according to ASTM D 1187.

G. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.5 FABRICATION, GENERAL

A. General: Custom fabricate sheet metal flashing and trim to comply with details shown and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required. Fabricate sheet metal flashing and trim in shop to greatest extent possible.

1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
2. Obtain field measurements for accurate fit before shop fabrication.
3. Form sheet metal flashing and trim to fit substrates without excessive oil canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
4. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.

B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of ¼-inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

C. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.

1. Form expansion joints of intermeshing hooked flanges, not less than 1-inch-deep, filled with butyl sealant concealed within joints.
2. Use lapped expansion joints only where indicated on Drawings.

D. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal to provide for proper installation of elastomeric sealant according to cited sheet metal standard.

E. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.

F. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard for application, but not less than thickness of metal being secured.

G. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use.

H. Do not use graphite pencils to mark metal surfaces.

2.6 ROOF-DRAINAGE SHEET METAL FABRICATIONS

A. Parapet Scuppers: Fabricate scuppers to dimensions required, with closure flange trim to exterior, 4-inch-wide wall flanges to interior, and base extending 4 inches beyond cant or tapered strip into field of roof. Fabricate from the following materials:

1. Aluminum: 0.032-inch-thick.

2.7 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

A. Roof Fasciae and Other Exposed Flashings: Fabricate in minimum 96-inch-long, but not exceeding 12-foot-long sections. Furnish with 6-inch-wide, joint cover plates.

1. Joint Style: Overlapped, 4 inches wide.
2. Fabricate from the following materials:

a. Aluminum: 0.050-inch-thick.

B. Base Flashing: Fabricate from the following materials:

1. Aluminum: 0.040-inch-thick.

C. Counterflashing: Shop fabricate interior and exterior corners. Fabricate from the following materials:

1. Aluminum: 0.032-inch-thick.

D. Reglets: Units of type, material, and profile required, formed to provide secure interlocking of separate reglet and counterflashing pieces, and compatible with flashing indicated with factory-mitered and -welded corners and junctions.

1. Aluminum: 0.024-inch-thick.
2. Masonry Type: Provide with offset top flange for embedment in masonry mortar joint.
3. Accessories:

a. Counterflashing Wind-Restraint Clips: Provide clips to be installed before counterflashing to prevent wind uplift of counterflashing's lower edge.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, substrate, and other conditions affecting performance of the Work.

1. Verify compliance with requirements for installation tolerances of substrates.
2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

A. Felt Underlayment: Install felt underlayment, wrinkle free, using adhesive to minimize use of mechanical fasteners under sheet metal flashing and trim. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.

B. Apply slip sheet, wrinkle free, directly on substrate before installing sheet metal flashing and trim.

3.3 INSTALLATION, GENERAL

A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.

1. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
3. Space cleats not more than 12 inches apart. Attach each cleat with at least two (2) fasteners. Bend tabs over fasteners.
4. Install exposed sheet metal flashing and trim with limited oil canning, and free of buckling and tool marks.
5. Torch cutting of sheet metal flashing and trim is not permitted.
6. Do not use graphite pencils to mark metal surfaces.

B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.

1. Coat concealed side of sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.

C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.

1. Form expansion joints of intermeshing hooked flanges, not less than 1-inch-deep, filled with sealant concealed within joints.
2. Use lapped expansion joints only where indicated on Drawings.

D. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1¼ inches for nails and not less than ¾ inch for wood screws.

E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

F. Seal joints as required for watertight construction.

1. Use sealant-filled joints unless otherwise indicated. Embed hooked flanges of joint members not less than 1-inch into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is between 40 and 70 deg F (4 and 21 deg C), set joint members for fifty percent (50%) movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F (4 deg C).
2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."

G. Rivets: Rivet joints in uncoated aluminum and zinc where indicated and where necessary for strength.

3.4 ROOF-DRAINAGE SYSTEM INSTALLATION

A. General: Install sheet metal roof-drainage items to produce complete roof-drainage system according to cited sheet metal standard unless otherwise indicated. Coordinate installation of roof perimeter flashing with installation of roof-drainage system.

A. Parapet Scuppers: Continuously support scupper, set to correct elevation, and seal flanges to interior wall face, over cants or tapered edge strips, and under roofing membrane.

1. Anchor scupper closure trim flange to exterior wall and seal with elastomeric sealant to scupper.

B. Expansion-Joint Covers: Install expansion-joint covers at locations and of configuration indicated. Lap joints minimum of 4 inches in direction of water flow.

3.5 ROOF FLASHING INSTALLATION

A. General: Install sheet metal flashing and trim to comply with performance requirements and cited sheet metal standard. Provide concealed fasteners where possible, and set units true to line, levels, and slopes. Install work with laps, joints, and seams that are permanently watertight and weather resistant.

B. Fasciae and Other Exposed Flashings: Anchor to resist uplift and outward forces according to recommendations in cited sheet metal standard unless otherwise indicated. Interlock bottom edge of roof edge flashing with continuous cleat anchored to substrate at staggered 3-inch centers.

C. Pipe or Post Counterflashing: Install counterflashing umbrella with close-fitting collar with top edge flared for elastomeric sealant, extending minimum of 4 inches over base flashing. Install stainless-steel draw band and tighten.

D. Counterflashing: Coordinate installation of counterflashing with installation of base flashing. Insert counterflashing in reglets or receivers and fit tightly to base flashing. Extend counterflashing 4 inches over base flashing. Lap counterflashing joints minimum of 4 inches and bed in sealant. Secure in waterproof manner by means of interlocking folded seam or blind rivets and sealant unless otherwise indicated.Counterflashing: End counterflashing at termination bars as indicated on Drawings. Seal termination bar with sealant as specified in Section 079200 “Sealants”.

F. Roof-Penetration Flashing: Coordinate installation of roof-penetration flashing with installation of roofing and other items penetrating roof. Seal with elastomeric sealant and clamp flashing to pipes that penetrate roof.

3.6 ERECTION TOLERANCES

A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of ¼-inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.7 CLEANING AND PROTECTION

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Clean off excess sealants.

C. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of sheet metal flashing and trim installation, remove unused materials and clean finished surfaces as recommended by sheet metal flashing and trim manufacturer. Maintain sheet metal flashing and trim in clean condition during construction.

D. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 076200

SECTION 077100 - ROOF SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Roof-edge specialties.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wood nailers, curbs, and blocking.
2. Section 076200 "Sheet Metal Flashing and Trim" for custom- and site-fabricated sheet metal flashing and trim.
3. Section 077200 "Roof Accessories" for equipment supports, vents, and other manufactured roof accessory units.
4. Section 079200 "Joint Sealants" for field-applied sealants between roof specialties and adjacent materials.

C. Preinstallation Conference: Conduct conference at Project site.

1. Meet with Owner, Architect, Owner's insurer if applicable, roofing-system testing and inspecting agency representative, roofing Installer, roofing-system manufacturer's representative, Installer, structural-support Installer, and installers whose work interfaces with or affects roof specialties, including installers of roofing materials and accessories.
2. Examine substrate conditions for compliance with requirements, including flatness and attachment to structural members.
3. Review special roof details, roof drainage, and condition of other construction that will affect roof specialties.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: For roof specialties.

1. Include plans, elevations, expansion-joint locations, keyed details, and attachments to other work. Distinguish between plant- and field-assembled work.
2. Include details for expansion and contraction; locations of expansion joints, including direction of expansion and contraction.
3. Indicate profile and pattern of seams and layout of fasteners, cleats, clips, and other attachments.
4. Detail termination points and assemblies, including fixed points.
5. Include details of special conditions.

C. Samples: For each type of roof specialty and for each color and texture specified.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For manufacturer.

B. Product Test Reports: For roof-edge flashings, for tests performed by a qualified testing agency.

C. Sample Warranty: For manufacturer's special warranty.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roofing specialties to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer offering products meeting requirements that are tested to specified design pressure.

B. Source Limitations: Obtain roof specialties approved by manufacturer providing roofing-system warranty specified in Section 075216 “Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing”.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Do not store roof specialties in contact with other materials that might cause staining, denting, or other surface damage. Store roof specialties away from uncured concrete and masonry.

B. Protect strippable protective covering on roof specialties from exposure to sunlight and high humidity, except to extent necessary for the period of roof-specialty installation.

1.8 FIELD CONDITIONS

A. Field Measurements: Verify profiles and tolerances of roof-specialty substrates by field measurements before fabrication and indicate measurements on Shop Drawings.

B. Coordination: Coordinate roof specialties with flashing, trim, and construction of parapets, roof deck, roof and wall panels, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.9 WARRANTY

A. Roofing-System Warranty: Roof specialties are included in warranty provisions in Section 075216 “Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing”.

B. Special Warranty on Painted Finishes: Manufacturer agrees to repair finish or replace roof specialties that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Fluoropolymer Finish: Deterioration includes, but is not limited to, the following:

a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: Twenty (20) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General Performance: Roof specialties shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

B. Wind Design Standard: Manufacture and install copings and roof-edge specialties tested according to Chapter 16 of the International Building Code and capable of resisting the following design pressures:

1. Design Pressure: As indicated on Drawings.

C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of thermal movements. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

2.2 ROOF-EDGE SPECIALTIES

A. Roof-Edge Fascia: Manufactured, two-piece, roof-edge fascia consisting of snap-on metal fascia cover in section lengths not exceeding 12 feet and a continuous metal receiver with integral drip-edge cleat to engage fascia cover and secure single-ply roof membrane. Provide matching corner units.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Elevate Building Products, a Holcim company
b. Johns Manville
c. Perimeter Systems; a division of Southern Aluminum Finishing Company, Inc.
d. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Formed Aluminum Sheet Fascia Covers: Aluminum sheet, minimum 0.050-inch-thick but thickness as required to meet performance requirements.

a. Surface: Smooth, flat finish.
b. Finish: Two-coat fluoropolymer.
c. Color: As selected by Architect and Owner from manufacturer's entire range, to match existing.

3. Corners: Factory mitered and continuously welded.
4. Splice Plates: Concealed, of same material, finish, and shape as fascia cover.
5. Receiver: Manufacturer's standard material and thickness.

B. One-Piece Gravel Stops: Manufactured, one-piece, metal gravel stop in section lengths not exceeding 12 feet, with a horizontal flange and vertical leg, fascia, and concealed splice plates of same material, finish, and shape as gravel stop. Provide matching corner units.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Firestone Building Products
b. Johns Manville
c. Perimeter Systems; a division of Southern Aluminum Finishing Company, Inc.
d. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Formed Aluminum Sheet Gravel Stops: Aluminum sheet, minimum 0.050-inch but thickness as required to meet performance requirements.

a. Surface: Smooth, flat finish.
b. Finish: Two-coat fluoropolymer.
a. Color: As selected by Architect and Owner from manufacturer's entire range, to match existing.

3. Corners: Factory mitered and continuously welded.
4. Accessories: Fascia extenders with continuous hold-down cleats.

C. Metal Copings: Manufactured coping system consisting of metal coping cap in section lengths not exceeding 12 feet, concealed anchorage; with corner units, end cap units, and concealed splice plates with finish matching coping caps.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Elevate Building Products, a Holcim company
b. Johns Manville
c. Perimeter Systems; a division of Southern Aluminum Finishing Company, Inc.
d. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Formed Aluminum Sheet Coping Caps: Aluminum sheet, 0.050-inch-thick.

a. Surface: Smooth, flat finish.
b. Finish: Two-coat fluoropolymer.
c. Color: As selected by Architect and Owner from manufacturer's full range, to match existing.

2.3 MATERIALS

A. Aluminum Sheet: ASTM B 209 alloy as standard with manufacturer for finish required, with temper to suit forming operations and performance required.

2.4 UNDERLAYMENT MATERIALS

A. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, non-perforated.

B. Slip Sheet: Rosin-sized building paper, 3-lb./100 sq. ft. minimum.

2.5 MISCELLANEOUS MATERIALS

A. Fasteners: Manufacturer's recommended fasteners, suitable for application and designed to meet performance requirements. Furnish the following unless otherwise indicated:

1. Exposed Penetrating Fasteners: Gasketed screws with hex washer heads matching color of sheet metal.
2. Fasteners for Aluminum: Aluminum or Series 300 stainless-steel.

B. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane polymer sealant of type, grade, class, and use classifications required by roofing-specialty manufacturer for each application.

C. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type joints with limited movement.

D. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.

E. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.6 FINISHES

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

D. Coil-Coated Aluminum Sheet Finishes:

1. High-Performance Organic Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

a. Two-Coat Fluoropolymer: AAMA 2605. Fluoropolymer finish containing not less than seventy percent (70%) PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
b. Concealed Surface Finish: Apply pretreatment and manufacturer's standard acrylic or polyester backer finish consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.

B. Examine walls, roof edges, and parapets for suitable conditions for roof specialties.

C. Verify that substrate is sound, dry, smooth, clean, sloped for drainage where applicable, and securely anchored.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

A. Felt Underlayment: Install with adhesive for temporary anchorage to minimize use of mechanical fasteners under roof specialties. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.

B. Slip Sheet: Install with tape or adhesive for temporary anchorage to minimize use of mechanical fasteners under roof specialties. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.

3.3 INSTALLATION, GENERAL

A. General: Install roof specialties according to manufacturer's written instructions. Anchor roof specialties securely in place, with provisions for thermal and structural movement. Use fasteners, protective coatings, separators, underlayments, sealants, and other miscellaneous items as required to complete roof-specialty systems.

1. Install roof specialties level, plumb, true to line and elevation; with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.
2. Provide uniform, neat seams with minimum exposure of sealant.
3. Install roof specialties to fit substrates and to result in weathertight performance. Verify shapes and dimensions of surfaces to be covered before manufacture.
4. Torch cutting of roof specialties is not permitted.
5. Do not use graphite pencils to mark metal surfaces.

B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

1. Coat concealed side of uncoated aluminum roof specialties with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
2. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof specialties for waterproof performance.

C. Expansion Provisions: Allow for thermal expansion of exposed roof specialties.

1. Space movement joints at a maximum of 12 feet with no joints within 18 inches of corners or intersections unless otherwise indicated on Drawings.
2. When ambient temperature at time of installation is between 40 and 70 deg F (4 and 21 deg C), set joint members for fifty percent (50%) movement each way. Adjust setting proportionately for installation at higher ambient temperatures.

D. Fastener Sizes: Use fasteners of sizes that penetrate wood blocking or sheathing not less than 1¼ inches for nails and not less than ¾ inch for wood screws.

E. Seal concealed joints with butyl sealant as required by roofing-specialty manufacturer.

F. Seal joints as required for weathertight construction. Place sealant to be completely concealed in joint. Do not install sealants at temperatures below 40 deg F (4 deg C).

3.4 ROOF-EDGE SPECIALTIES INSTALLATION

A. Install cleats, cants, and other anchoring and attachment accessories and devices with concealed fasteners.

B. Anchor roof edgings with manufacturer's required devices, fasteners, and fastener spacing to meet performance requirements.

C. Anchor copings with manufacturer's required devices, fasteners, and fastener spacing to meet performance requirements.

1. Interlock face and back leg drip edges of snap-on coping cap into cleated anchor plates anchored to substrate at manufacturer's required spacing that meets performance requirements.

3.5 CLEANING AND PROTECTION

A. Clean off excess sealants.

B. Remove temporary protective coverings and strippable films as roof specialties are installed. On completion of installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain roof specialties in a clean condition during construction.

C. Replace roof specialties that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 077100

SECTION 077129 - MANUFACTURED ROOF EXPANSION JOINTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Bellows-type roof expansion joints.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wooden curbs or cants for mounting roof expansion joints.
2. Section 076200 "Sheet Metal Flashing and Trim" for shop- and field-fabricated sheet metal expansion-joint systems, flashing, and other sheet metal items.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For roof expansion joints.

1. Include plans, elevations, sections, and attachment details.
2. Include details of splices, intersections, transitions, fittings, method of field assembly, and location and size of each field splice.
3. Provide isometric drawings of intersections, terminations, and changes in joint direction or planes, depicting how components interconnect with each other and adjacent construction to allow movement and achieve waterproof continuity.

C. Samples: For each exposed product and for each color specified, 6 inches in size.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Test Reports: For each fire-barrier provided as part of a roof-expansion-joint assembly, for tests performed by a qualified testing agency.

C. Sample Warranties: For special warranties.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Installer of roofing membrane.

1.6 WARRANTY

A. Special Warranty: Manufacturer and Installer agree to repair or replace roof expansion joints and components that leak, deteriorate beyond normal weathering, or otherwise fail in materials or workmanship within specified warranty period.

1. Warranty Period: Two (2) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General: Roof expansion joints shall withstand exposure to weather, remain watertight, and resist the movements indicated without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, overstressing of components, failure of joint seals, failure of connections, and other detrimental effects.

1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

C. Fire-Test-Response Characteristics: Provide fire-barrier assemblies with fire-test-response characteristics as determined by testing identical products, per test method indicated, by UL or another testing agency acceptable to authorities having jurisdiction. Assemblies shall be capable of anticipated movement while maintaining fire rating. Fire-barrier products shall bear classification marking of qualified testing agency.

2.2 BELLOWS-TYPE ROOF EXPANSION JOINTS

A. Source Limitations: Obtain bellows-type roof expansion joints approved by roofing manufacturer and that are part of roofing membrane warranty.

B. Flanged Bellows Roof Expansion Joint: Manufactured, continuous, waterproof, joint-cover assembly, consisting of exposed membrane bellows, laminated to flexible, closed-cell support foam, and secured along each edge to a 3- to 4-inch-wide metal flange for nailing to substrate. Provide each size and type indicated, factory-fabricated units for corner and joint intersections and horizontal and vertical transitions including those to other building expansion joints, splicing units, adhesives, and other components as recommended by roof-expansion-joint manufacturer for complete installation. Fabricate each assembly specifically for installation configuration indicated on Drawings.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Johns Manville; **Expand-O-Flash**
b. JointMaster, a division of InPro Corporation; **672**
c. MM Systems Corporation; **Series ERFL**
d. Substitutions: Under provision of Section 012500 “Substitution Procedures”.

2. Joint Movement Capability: Plus and minus fifty percent (+/-50%) of joint size.

3. Bellows: Neoprene flexible membrane, nominal 60 mils thick.

   a. Color: Black.

4. Flanges: Aluminum, 0.032-inch-thick.

   a. Form: As indicated on Drawings.
   b. Mortar Flanges: Where flanges will be embedded in concrete or mortar, provide perforated-metal mortar flanges.

5. Fire Barrier: Manufacturer's standard fire-resistive joint system with ratings determined per ASTM E 119 to resist spread of fire and to accommodate building thermal movements without impairing its ability to resist the passage of fire and hot gases.

   a. Fire-Resistance Rating: Not less than 2-hour.

2.3 MATERIALS

A. Aluminum: ASTM B 209 for sheet and plate, ASTM B 221 for extrusions; alloy as standard with manufacturer for finish required, with temper to suit forming operations and performance required.

   1. Apply manufacturer's standard protective coating on aluminum surfaces to be placed in contact with cementitious or preservative-treated wood materials.
   2. Mill Finish: As manufactured.

B. Neoprene Membrane: Neoprene sheet recommended by EPDM manufacturer for resistance to hydrocarbons, non-aromatic solvents, grease, and oil; and as standard with roof-expansion-joint manufacturer for application.

C. Adhesives: As recommended by roof-expansion-joint manufacturer and with a VOC content of 70 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

D. Fasteners: Manufacturer's recommended fasteners, suitable for application and designed to withstand design loads.

   1. Exposed Fasteners: Gasketed. Use screws with hex washer heads matching color of material being fastened.

E. Mineral-Fiber Blanket: ASTM C 665.

F. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.

B. Examine roof-joint openings, inside surfaces of parapets, and expansion-control joint systems that interface with roof expansion joints, for suitable conditions where roof expansion joints will be installed.

C. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Comply with manufacturer's written instructions for handling and installing roof expansion joints.

1. Anchor roof expansion joints securely in place, with provisions for required movement. Use fasteners, protective coatings, sealants, and miscellaneous items as required to complete roof expansion joints.
2. Install roof expansion joints true to line and elevation; with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.
3. Provide for linear thermal expansion of roof expansion joint materials.
4. Provide uniform profile of roof expansion joint throughout its length; do not stretch or squeeze membranes.
5. Provide uniform, neat seams.
6. Install roof expansion joints to fit substrates and to result in watertight performance.
7. Torch cutting of roof expansion joints is not permitted.
8. Do not use graphite pencils to mark aluminum surfaces.

B. Splices: Splice roof expansion joints with materials provided by roof-expansion-joint manufacturer for this purpose, to provide continuous, uninterrupted, and waterproof joints.

C. Fire Barrier: Install fire barrier where indicated to provide continuous, uninterrupted fire resistance throughout length of roof expansion joint, including transitions and end joints.

D. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

3.3 PROTECTION

A. Protect roof expansion joints from foot traffic, displacement, or other damage.

B. Remove and replace roof expansion joints and components that become damaged by moisture or otherwise.

END OF SECTION 077129

SECTION 077200 - ROOF ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Roof hatches.
2. Pipe and duct supports.
3. Preformed flashing sleeves.

B. Related Sections:

1. Section 055000 "Metal Fabrications" for metal vertical ladders, ships' ladders, and stairs for access to roof hatches.
2. Section 076200 "Sheet Metal Flashing and Trim" for shop- and field-formed metal flashing, roof-drainage systems, and miscellaneous sheet metal trim and accessories.
3. Section 077100 "Roof Specialties" for manufactured fasciae and roof edge flashings.
4. Section 077129 "Manufactured Roof Expansion Joints" for manufactured roof expansion-joint covers.

1.3 COORDINATION

A. Coordinate layout and installation of roof accessories with roofing membrane and base flashing and interfacing and adjoining construction to provide a leakproof, weathertight, secure, and noncorrosive installation.

B. Coordinate dimensions with rough-in information or Shop Drawings of equipment to be supported.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of roof accessory.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: For roof accessories.

1. Include plans, elevations, keyed details, and attachments to other work. Indicate dimensions, loadings, and special conditions. Distinguish between plant- and field-assembled work.

C. Samples: For each exposed product and for each color and texture specified, prepared on Samples of size to adequately show color.

1.5 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Roof plans, drawn to scale, and coordinating penetrations and roof-mounted items. Show the following:

1. Size and location of roof accessories specified in this Section.
2. Method of attaching roof accessories to roof or building structure.
3. Other roof-mounted items including mechanical and electrical equipment, ductwork, piping, and conduit.
4. Required clearances.

B. Sample Warranties: For manufacturer's special warranties.

1.6 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For roof accessories to include in operation and maintenance manuals.

1.7 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace roof hatch that fails in materials or workmanship within specified warranty period.

1. Warranty Period: Five (5) years from date of Substantial Completion.

B. Special Warranty on Painted Finishes: Manufacturer's standard form in which manufacturer agrees to repair finishes or replace roof accessories that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Finish Warranty Period: Five (5) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General Performance: Roof accessories shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

2.2 ROOF HATCHES

A. Roof Hatches: Metal roof-hatch units with thermally broken lids and insulated single-walled curbs, welded or mechanically fastened and sealed corner joints, continuous lid-to-curb counterflashing and weathertight perimeter gasketing, and integrally formed deck-mounting flange at perimeter bottom.

1. Basis-of-Design:

a. Bilco Company (The); **Type F-50**

2. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Milcor Inc.; Commercial Products Group of Hart & Cooley, Inc.
b. Precision Ladders, LLC
c. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

B. Type and Size: Single- Double-leaf lid, sized to match existing.

C. Loads: Minimum 40-lbf/sq. ft. external live load and 20-lbf/sq. ft. internal uplift load.

D. Hatch Material: Aluminum sheet.

1. Thickness: 0.090-inch.
2. Finish: Mill.

E. Construction:

1. Insulation: Glass-fiber board.
2. Hatch Lid: Opaque, insulated, and double walled, with manufacturer's standard metal liner of same material and finish as outer metal lid.
   On ribbed or fluted metal roofs, form flange at perimeter bottom to conform to roof profile.
3. Fabricate curbs to minimum height of 12 inches above roofing surface unless otherwise indicated.

F. Hardware: Spring operators, hold-open arm, galvanized steel spring latch with turn handles, stainless-steel butt- or pintle-type hinge system, and padlock hasps inside and outside.

G. Safety Railing System: Roof-hatch manufacturer's standard system including rails, clamps, fasteners, safety barrier at railing opening, and accessories required for a complete installation; attached to roof hatch and complying with 29 CFR 1910.23 requirements and authorities having jurisdiction.

1. Height: 42 inches above finished roof deck.
2. Posts and Rails: Galvanized-steel pipe, 1¼ inches in diameter or galvanized-steel tube, 1-5/8 inches in diameter.
3. Flat Bar: Galvanized steel, 2 inches high by 3/8-inch-thick.
4. Maximum Opening Size: System constructed to prevent passage of a sphere 21 inches in diameter.
5. Self-Latching Gate: Fabricated of same materials and rail spacing as safety railing system. Provide manufacturer's standard hinges and self-latching mechanism.
6. Post and Rail Tops and Ends: Weather resistant, closed or plugged with prefabricated end fittings.
7. Provide weep holes or another means to drain entrapped water in hollow sections of handrail and railing members.
8. Fabricate joints exposed to weather to be watertight.
9. Fasteners: Manufacturer's standard, finished to match railing system.
10. Finish: Manufacturer's standard baked enamel or powder coat.

    a. Color: As selected by Architect and Owner from manufacturer's full range.

H. Ladder-Assist Post: Roof-hatch manufacturer's standard device for attachment to roof-access ladder.

1. Operation: Post locks in place on full extension; release mechanism returns post to closed position.
2. Height: 42 inches above finished roof deck.
3. Material: Hot-dip galvanized steel tube.

4. Post: 1-5/8-inch-diameter pipe.
5. Finish: Manufacturer's standard baked enamel or powder coat.

    a. Color: As selected by Architect and Owner from manufacturer's full range.

2.3 PIPE AND DUCT SUPPORTS

A. Rubber Pipe Support Curbs: Provide manufacturer's standard low-profile rubber pipe support curbs.

1. Basis-of-Design Product:

    a. Advanced Support Products; **EcoCurb REC 9S**

2. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

    a. MIFAB, Inc.
    b. Rugger Triangle Co. (The)
    c. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

B. Duct Supports: Internally reinforced metal duct supports capable of supporting superimposed live and dead loads, including equipment loads and other construction indicated on Drawings; with welded or mechanically fastened and sealed corner joints, and integrally formed deck-mounting flange at perimeter bottom.

1. Basis-of-Design Product:

    a. Miro Industries, Inc.; **6-DS**

2. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

    a. Custom Solution Roof and Metal Products
    b. Roof Products, Inc.
    c. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

3. Size:

    a. Bases: 9 inches x 15¼ inches.
    b. Strut Assembly: Minimum 16-inch-wide support bar, Width as required, with height adjustable from a minimum of 12 inches to a maximum of 36 inches in elevation above roof membrane.

4. Loads: Maximum load weight not to exceed 325 lbs. on each base.
5. Material: Polycarbonate plastic bases with zinc-coated (galvanized) steel struts and support bar. Finish and color per manufacturer’s standard.

2.4 PREFORMED FLASHING SLEEVES

A. Exhaust Vent Flashing: Double-walled metal flashing sleeve or boot, insulation filled, with integral deck flange, 12 inches high, with removable metal hood and slotted metal collar.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

    a. Custom Solution Roof and Metal Products
    b. Thaler Metal USA Inc
    c. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Metal: Aluminum sheet, 0.063-inch-thick.
3. Diameter: As required.
4. Finish: Manufacturer's standard.

B. Vent Stack Flashing: Metal flashing sleeve, uninsulated, with integral deck flange.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

    a. Custom Solution Roof and Metal Products
    b. Milcor Inc.; Commercial Products Group of Hart & Cooley, Inc.
    c. Thaler Metal USA Inc.
    d. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Metal: Aluminum sheet, 0.063-inch-thick.
3. Height: 19 inches.
4. Diameter: As required.
5. Finish: Manufacturer's standard.

2.5 METAL MATERIALS

A. Aluminum Sheet: ASTM B 209, manufacturer's standard alloy for finish required, with temper to suit forming operations and performance required.

1. Mill Finish: As manufactured.
2. Exposed Coil-Coated Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

    a. Two-Coat Fluoropolymer Finish: AAMA 2605. System consisting of primer and fluoropolymer color topcoat containing not less than seventy percent (70%) polyvinylidene fluoride (PVDF) resin by weight.

B. Aluminum Extrusions and Tubes: ASTM B 221, manufacturer's standard alloy and temper for type of use, finished to match assembly where used; otherwise mill finished.

C. Galvanized-Steel Tube: ASTM A 500, round tube, hot-dip galvanized according to ASTM A 123.

D. Steel Pipe: ASTM A 53, galvanized.

2.6 MISCELLANEOUS MATERIALS

A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items required by manufacturer for a complete installation.

B. Glass-Fiber Board Insulation: ASTM C 726, nominal density of 3 lb./cu. ft., thermal resistivity of 4.3 deg F x h x sq. ft./Btu x in. at 75 deg F (29.8 K x m/W at 24 deg C), thickness as indicated.

C. Wood Nailers: Softwood lumber, pressure treated with waterborne preservatives for aboveground use, acceptable to authorities having jurisdiction, containing no arsenic or chromium, and complying with AWPA C2; not less than 1½ inches thick.

D. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.

E. Underlayment:

1. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, non-perforated.
2. Polyethylene Sheet: 6-mil-thick polyethylene sheet complying with ASTM D 4397.
3. Slip Sheet: Building paper, 3-lb/100 sq. ft. minimum, rosin sized.

F. Fasteners: Roof accessory manufacturer's recommended fasteners suitable for application and metals being fastened. Match finish of exposed fasteners with finish of material being fastened. Provide non-removable fastener heads to exterior exposed fasteners. Furnish the following unless otherwise indicated:

1. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless-steel.

G. Gaskets: Manufacturer's standard tubular or fingered design of neoprene, EPDM, PVC, or silicone or a flat design of foam rubber, sponge neoprene, or cork.

H. Elastomeric Sealant: ASTM C 920, elastomeric polymer sealant as recommended by roof accessory manufacturer for installation indicated; low modulus; of type, grade, class, and use classifications required to seal joints and remain watertight.

I. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for expansion joints with limited movement.

J. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.7 GENERAL FINISH REQUIREMENTS

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Baked-Enamel or Powder-Coat Finish: After cleaning and pretreating, apply manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat to a minimum dry film thickness of 2 mils.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.

B. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

C. Verify dimensions of roof openings for roof accessories.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Install roof accessories according to manufacturer's written instructions.

1. Install roof accessories level, plumb, true to line and elevation, and without warping, jogs in alignment, excessive oil canning, buckling, or tool marks.
2. Anchor roof accessories securely in place so they are capable of resisting indicated loads.
3. Use fasteners, separators, sealants, and other miscellaneous items as required to complete installation of roof accessories and fit them to substrates.
4. Install roof accessories to resist exposure to weather without failing, rattling, leaking, or loosening of fasteners and seals.

B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

1. Coat concealed side of uncoated aluminum roof accessories with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
2. Underlayment: Where installing roof accessories directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet, or install a course of polyethylene sheet.
3. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof accessories for waterproof performance.

C. Roof-Hatch Accessories Installation:

1. Install roof hatch so top surface of hatch curb is level.
2. Verify that roof hatch operates properly. Clean, lubricate, and adjust operating mechanism and hardware.
3. Attach safety railing system to roof-hatch curb.
4. Attach ladder-assist post according to manufacturer's written instructions.

D. Duct Support Installation: Install supports so top surfaces are level with each other. All loose aggregate from an area of 2 inches larger than each base should be removed from the area directly beneath the duct support. Care should be taken to install each duct support so it supports a proportional and equal amount of weight at each duct support.

E. Pipe Support Installation: Comply with MSS SP-58 and MSS SP-89. Install supports and attachments as required to properly support piping. Arrange for grouping of parallel runs of horizontal piping, and support together.

1. Pipes of Various Sizes: Space supports for smallest pipe size or install intermediate supports for smaller diameter pipes as specified for individual pipe hangers.

F. Preformed Flashing-Sleeve Installation: Secure flashing sleeve to roof membrane according to flashing-sleeve manufacturer's written instructions.

G. Seal joints with elastomeric or butyl sealant as required by roof accessory manufacturer.

3.3 REPAIR AND CLEANING

A. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing according to ASTM A 780.

B. Clean exposed surfaces according to manufacturer's written instructions.

C. Clean off excess sealants.

D. Replace roof accessories that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 077200

SECTION 078413 - PENETRATION FIRESTOPPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Fireproof firestopping and firesafing materials and accessories.

1.3 PERFORMANCE REQUIREMENTS

A. Fireproofing Materials: ASTM E 119 and ASTM E 814 to achieve a fire rating as noted on Drawings.

B. Surface Burning: ASTM E 84 with a flame spread/fuel contributed/smoke developed rating of 5/0/0.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated provide characteristics, performance and limitation criteria.

B. Manufacturer's Installation Instructions: Indicate preparation and installation instructions.

C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing the products specified in this Section with minimum three (3) years documented experience.

B. Applicator: Company specializing in performing the work of this Section with minimum five (5) years documented experience.

1.6 REGULATORY REQUIREMENTS

A. Conform to applicable State Building code for fire resistance ratings and surface burning characteristics.

B. UL Classifications for these systems shall be (all two (2) hours or more):

1. Duct Penetrations: C-AJ-7027
2. Pipe Penetrations: C-AJ-1079
3. Cable Penetrations: C-AJ-1079
4. Conduit Penetrations: C-AJ-1079

1.7 MOCK-UP

A. Provide mock-up of applied firestopping material.

B. Apply 1 lineal ft to a representative substrate surface.

C. If accepted, mock-up will demonstrate minimum standard for the Work.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not apply materials when temperature of substrate material and ambient air is below 60 degrees F.

B. Maintain this minimum temperature before, during and for three (3) days after installation of materials.

C. Provide ventilation in areas to receive solvent cured materials.

1.9 SEQUENCING

A. Sequence Work to permit firestopping materials to be installed after adjacent and surrounding work is complete.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Thermal Ceramics; **Firemaster Putty, Bulk and Blankets**

B. Tremco Incorporated; **Fyre-shield and Cerablanket FS Hilti, Inc.**

C. United States Gypsum; **Thermafiber Safing Insulation and FIRECODE compound**

D. Substitutions: Under provisions of Section 016310 “Equals and Substitutions”.

2.2 MATERIALS

A. Firestopping Material: Single component silicone elastomeric compounds; conforming to the following:

1. Elongation & Shrinkage: Five percent (5%).
2. Tensile Strength: 300 psi.
3. Density: 8 lb/cu ft.
4. Surface Durability: 35 (Shore Hardness).
5. Durability and Longevity: Permanent.
6. Side Effects during Installation: Non-toxic.
7. Long Term Side Effects: None.

B. Primer: Type recommended by firestopping manufacturer for specific substrate surfaces.

C. Firesafing Blankets: ASTM C 665; 4 psf nominal density firesafing insulation.

D. Putty Pads: UL CLIV; acoustic, intumescent pad; 3.2mm thickness.

2.3 ACCESSORIES

A. Dam Material: Mineral fiber matting, permanent.

B. Retainers: Stainless clips to support mineral fiber matting

2.4 FINISHES

A. Color: Dark gray or manufacturer’s standard color.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for opening configurations, penetrating items, substrates, and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning: Clean out openings immediately before installing penetration firestopping to comply with manufacturer's written instructions and with the following requirements:

1. Remove from surfaces of opening substrates and from penetrating items foreign materials that could interfere with adhesion of penetration firestopping.
2. Clean opening substrates and penetrating items to produce clean, sound surfaces capable of developing optimum bond with penetration firestopping. Remove loose particles remaining from cleaning operation.
3. Remove laitance and form-release agents from concrete.

B. Install backing materials to arrest liquid material leakage.

3.3 INSTALLATION

A. General: Install penetration firestopping to comply with manufacturer's written installation instructions and published drawings for products and applications indicated.

B. Apply firestopping material to all wall and floor penetrations through rated assemblies. These penetrations include electrical conduit and raceways, plumbing and heating system penetrations, ducts and other system chases.

C. Apply primer and materials in accordance with manufacturer's instructions.

D. Apply firestopping material in sufficient thickness to achieve rating to a density of fifty percent (50%) to uniform density and texture.

E. Install material at walls or partition openings which contain penetrating sleeves, piping, ductwork, conduit and other items requiring firestopping.

F. Remove dam material after firestopping material has cured.

3.4 CLEANING AND PROTECTION

A. Clean off excess materials adjacent to openings as the Work progresses by methods and with cleaning materials that are approved in writing by penetration firestopping manufacturers and that do not damage materials in which openings occur.

B. Provide final protection and maintain conditions during and after installation that ensure that penetration firestopping is without damage or deterioration at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, immediately cut out and remove damaged or deteriorated penetration firestopping and install new materials to produce systems complying with specified requirements.

3.5 SCHEDULE

A. See Construction Documents for rating information and construction details and conditions.

B. Firesafe all penetrations through new and existing masonry and gypsum board construction in the project work areas, equal to the one (1) or two (2) hour rating of the appropriate spaces.

END OF SECTION 078413

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Silicone joint sealants.

1.3 ACTION SUBMITTALS

A. Product Data: For each joint-sealant product indicated.

B. Samples: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.

C. Joint-Sealant Schedule: Include the following information:

1. Joint-sealant application, joint location, and designation.
2. Joint-sealant manufacturer and product name.
3. Joint-sealant formulation.
4. Joint-sealant color.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer.

B. Product Certificates: For each kind of joint sealant and accessory, from manufacturer.

C. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, indicating that sealants comply with requirements.

D. Warranties: Sample of special warranties.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.

B. Source Limitations: Obtain each kind of joint sealant from single source from single manufacturer.

C. Product Testing: Test joint sealants using a qualified testing agency.

1. Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.

1.6 PROJECT CONDITIONS

A. Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F (5 deg C).
2. When joint substrates are wet.
3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.7 WARRANTY

A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Five (5) years from date of Substantial Completion.

B. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:

1. Movement of the structure caused by structural settlement or errors attributable to design or construction resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
2. Disintegration of joint substrates from natural causes exceeding design specifications.
3. Mechanical damage caused by individuals, tools, or other outside agents.
4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

B. VOC Content of Sealants: Sealants and sealant primers used as part of the weatherproofing system shall comply with the following:

1. Exterior: VOC content of 100 g/L or less.

C. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.

D. Stain-Test-Response Characteristics: Where sealants are specified to be non-staining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.

E. Colors of Exposed Joint Sealants: As selected by Architect and Owner from manufacturer's full range, to match adjacent where required.

2.2 SILICONE JOINT SEALANTS

A. Silicone, Non-Staining: Non-Staining, single-component, non-sag, plus fifty percent (+50%) and minus fifty percent (-50%) movement capability, non-traffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 50, Use NT.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

a. Dow Corning Corporation
b. Master Bond, Inc.
c. Pecora Corporation
d. Tremco Incorporated
e. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2.3 JOINT SEALANT BACKING

A. General: Provide sealant backings of material that are non-staining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

B. Cylindrical Sealant Backings: ASTM C 1330, Type B (bi-cellular material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

2.4 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.

C. Masking Tape: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:

1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Porous joint substrates include the following:

    a. Concrete.
    b. Masonry.

3. Remove laitance and form-release agents from concrete.
4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:

    a. Metal.
    b. Glass.

B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.

B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

1. Do not leave gaps between ends of sealant backings.
2. Do not stretch, twist, puncture, or tear sealant backings.
3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:

1. Place sealants so they directly contact and fully wet joint substrates.
2. Completely fill recesses in each joint configuration.
3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

F. Tooling of Non-Sag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.

1. Remove excess sealant from surfaces adjacent to joints.
2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
4. Provide flush joint profile where indicated per Figure 8B in ASTM C 1193.
5. Provide recessed joint configuration of recess depth and at locations indicated per Figure 8C in ASTM C 1193.

    a. Use masking tape to protect surfaces adjacent to recessed tooled joints.

3.4 CLEANING

A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

3.6 JOINT-SEALANT SCHEDULE

A. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal non-traffic surfaces.

1. Joint Locations:

    a. Control and expansion joints in unit masonry.
    b. Joints between different materials.
    c. Perimeter joints between materials listed above and frames of exterior doors and skylights.
    d. Other joints as indicated.

2. Joint Sealant: Silicone, non-staining, S, NS, 50, NT.

END OF SECTION 079200

SECTION 086200 - UNIT SKYLIGHTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Self-flashing unit skylights with integral curbs.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of unit skylight.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for unit skylights.

B. Shop Drawings: For unit skylight work.

1. Include plans, elevations, sections, details, and connections to supporting structure and other adjoining work.

C. Aluminum Finish Samples: For each type of exposed finish required, in a representative section of each unit skylight in manufacturer's standard size.

D. Glazing Samples: For each color and finish of glazing indicated, 12 inches square and of same thickness indicated for the final Work.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer and manufacturer.

B. Product Test Reports: For each type and size of unit skylight, for tests performed within the last four (4) years by a qualified testing agency. Test results based on testing of smaller unit skylights than specified will not be accepted.

C. Sample Warranty: For special warranty.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For unit skylights to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: A manufacturer capable of fabricating unit skylights that meet or exceed performance requirements indicated and of documenting this performance by inclusion in lists and by labels, test reports, and calculations.

B. Installer Qualifications: An installer acceptable to unit skylight manufacturer for installation of units required for this Project.

1.7 DELIVERY, HANDLING, STORAGE

A. Deliver products in manufacturer's original containers dry, undamaged, seals and labels intact.

B. Store and protect products in accordance with manufacturer's recommendations.

1.8 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of unit skylights that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Uncontrolled water leakage.
b. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
c. Breakage of polycarbonate glazing.

2. Warranty Period: Fifteen (15) years on skylight assembly and ten (10) years on acrylic coloring from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product:

1. Wasco Products, Inc., a VELUX Group company; **Model CWC2.**

B. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Kingspan Light + Air LLC
2. Substitutions: Under provisions of Section 012500 "Substitution Procedures".

2.2 PERFORMANCE REQUIREMENTS

A. Unit Skylight Standard: Comply with AAMA 101/I.S.2/NAFS for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.

B. General: Provide unit skylights capable of withstanding loads indicated without failure. Failure includes the following:

1. Thermal stresses transferred to the building structure.
2. Framing members transferring stresses, including those caused by thermal and structural movement, to glazing.
3. Noise or vibration created by thermal and structural movement and wind.
4. Loosening or weakening of fasteners, attachments, and other components.
5. Sealant failure.

C. System to provide for expansion and contraction within system components caused by a cycling temperature range of 170 degrees F without causing detrimental effects to system or components.

D. Design and size members to withstand dead loads and live loads caused by snow, hail and pressure or suction of wind acting vertically as calculated in accordance with Chapter 16 of the State of Connecticut Building Code. The domes shall be designed to withstand loads required by OSHA 1910.23(a)(4). Plastic skylights must meet the requirements of AAMA 101/I.S.2/NAFS, which requires glazing thickness adequate to withstand a positive and negative test pressure as calculated in accordance with Section 2405.5.1 of the State of Connecticut Building Code.

E. Skylight glazing shall be of such construction and mounting that they are capable of withstanding a load of at least 200 pounds applied perpendicularly at any single area on the skylight as required by OSHA 1910.23(e)(8).

F. Thermal transmittance (U-factor) shall be 1.30 and solar heat gain coefficient (SHGC) shall be 0.62 in accordance with Table 502.3 of the 2006 International Energy Conservation Code.

2.3 UNIT SKYLIGHTS

A. General: Provide factory-assembled unit skylights that include glazing, extruded-aluminum glazing retainers, gaskets, and inner frames and that are capable of withstanding performance requirements indicated.

B. Unit Shape and Size: To match existing.

C. Extruded aluminum alloy 6063-T5 with minimum effective thickness of 0.090-inch. Mitered and welded corner assembly in mill finish.

D. Polycarbonate Glazing: Thermoformable, extruded monolithic sheets, UV resistant, burglar-resistance rated according to UL 972, and with average impact strength of 12 to 16 ft-lb/in. of width when tested according to ASTM D 256, Test Method A (Izod).

1. Double-Glazing Profile:

   a. Inner/Outer Glazing: Colorless, transparent polycarbonate.

2. Self-Ignition Temperature: 650 deg F (343 deg C) or more for plastic sheets in thickness indicated when tested according to ASTM D 1929.
3. Smoke-Production Characteristics: Smoke-developed index of 450 or less when tested according to ASTM E 84, and smoke density of 75 or less when tested according to ASTM D 2843
4. Burning Characteristics: Tested according to ASTM D 635. Class CC1, burning extent of 1-inch or less for nominal thickness of 0.060-inch or thickness indicated for use.

E. Glazing Gaskets: Manufacturer's standard.

F. Integral Curb: Extruded-aluminum, self-flashing type.

1. Extruded-Aluminum Shapes: ASTM B 221, alloy and temper to suit structural and finish requirements but with not less than the strength and durability of Alloy 6063-T52.
2. Height: 8 inches or as required to meet minimum heights on Drawings.
3. Construction: Double wall.
4. Insulation: Manufacturer's standard rigid or semi-rigid type.

G. Condensation Control: Fabricate unit skylights with integral internal gutters and non-clogging weeps to collect and drain condensation to the exterior.

H. Thermal Break: Fabricate unit skylights with glass fiber reinforced polymer thermal barrier separating exterior and interior metal framing.

2.4 FALL PROTECTION SAFETY SCREENS

A. Interior Protective Screen: Welded steel wire mesh, 4-inch-by-4-inch spacing minimum, wire diameter 0.188-inch minimum hot dipped galvanized finish on carbon steel, or unfinished stainless-steel in integral frame.

B. Frame: Extruded aluminum alloy 6063-T5 (minimum); ASTM B 221 with minimum effective thickness of 0.090-inch.

1. Frame includes a pocket for the edges of the screen material, and a downward leg for attachment to any vertical surface of a skylight retainer or frame.

C. Adjustment Bar: Extruded aluminum bar stock, ¼-inch by 1-inch, alloy 6063-T5 (minimum); ASTM B 221.

1. Adjustment bar is slotted for width adjustment in the field.

2.5 ACCESSORY MATERIALS

A. Fasteners: Same metal as metal being fastened, nonmagnetic stainless steel, or other noncorrosive metal as recommended by manufacturer. Finish exposed fasteners to match material being fastened.

1. Where removal of exterior exposed fasteners might allow access to building, provide non-removable fastener heads.

B. Bituminous Coating: Cold-applied asphalt mastic, asbestos-free, compounded for 15-mil dry film thickness per coat.

2.6 ALUMINUM FINISHES

A. Mill Finish: Manufacturer's standard.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Where aluminum surfaces of unit skylights will contact another metal or corrosive substrates, such as preservative-treated wood, apply bituminous coating on concealed metal surfaces or

provide other approved permanent separation recommended in writing by unit skylight manufacturer.

3.3 INSTALLATION

A. Coordinate installation of unit skylight with installation of substrates, vapor retarders, roof insulation, roofing membrane, and flashing as required to ensure that each element of the Work performs properly and that combined elements are waterproof and weathertight.

B. Comply with recommendations in AAMA 1607 and with manufacturer's written instructions for installing unit skylights.

C. Install unit skylights level, plumb, and true to line, without distortion.

D. Anchor unit skylights securely to supporting substrates.

3.4 CLEANING

A. Clean exposed unit skylight surfaces according to manufacturer's written instructions. Touch up damaged metal coatings and finishes.

B. Remove excess sealants, glazing materials, dirt, and other substances.

C. Remove and replace glazing that has been broken, chipped, cracked, abraded, or damaged during construction period.

D. Protect unit skylight surfaces from contact with contaminating substances resulting from construction operations.

END OF SECTION 086200

SECTION 099113 - EXTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes surface preparation and the application of paint systems on the following exterior substrates:

1. Steel and iron.
2. Galvanized metal.

1.3 DEFINITIONS

A. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product. Include preparation requirements and application instructions.

B. Samples: For each type of paint system and each color and gloss of topcoat.

1. Submit Samples on rigid backing, 8 inches square.
2. Step coats on Samples to show each coat required for system.
3. Label each coat of each Sample.
4. Label each Sample for location and application area.

C. Product List: For each product indicated, include the following:

1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
2. Printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.
3. VOC content.

1.5 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Paint: Five percent, (5%) but not less than 1 gal. of each material and color applied.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).

B. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds eighty-five percent (85%); at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Behr Process Corporation
2. Benjamin Moore & Co.
3. Duron, Inc.
4. ICI Paints
5. PPG Architectural Finishes, Inc.
6. Sherwin-Williams Company (The)
7. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2.2 PAINT, GENERAL

A. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."

B. Material Compatibility:

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

C. VOC Content: Provide materials that comply with VOC limits of authorities having jurisdiction.

D. Colors: As selected by Architect and Owner from manufacturer’s entire range, to match existing where required.

2.3 SOURCE QUALITY CONTROL

A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:

1. Owner will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.
2. Testing agency will perform tests for compliance with product requirements.

3. Owner may direct Contractor to stop applying paints if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two (2) paints are incompatible.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

B. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

C. Proceed with coating application only after unsatisfactory conditions have been corrected.

1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and paint systems indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.

C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.

1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

D. Steel Substrates: Remove rust, loose mill scale, and shop primer if any. Clean using methods recommended in writing by paint manufacturer but not less than the following:

1. SSPC-SP 3.

E. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.

3.3 APPLICATION

A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Manual."

1. Use applicators and techniques suited for paint and substrate indicated.

2. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
3. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.

B. Tint undercoats same color as topcoat but tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Provide sufficient difference in shade of undercoats to distinguish each separate coat.

C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.

D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:

1. Paint the following work where exposed to view, unless factory-finished:

a. Uninsulated metal piping.
b. Pipe hangers and supports.
c. Metal conduit.

3.4 FIELD QUALITY CONTROL

A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.

1. Contractor shall touch up and restore painted surfaces damaged by testing.
2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 EXTERIOR PAINTING SCHEDULE

A. Steel and Iron Substrates:

1. Water-Based Light Industrial Coating System:

    a. Prime Coat: Primer, zinc rich, inorganic, **MPI #19**.
    b. Intermediate Coat: Light industrial coating, exterior, water based, matching topcoat.
    c. Topcoat: Light industrial coating, exterior, water based, semi-gloss (Gloss Level 5), **MPI #163**.

B. Galvanized-Metal Substrates:

1. Water-Based Light Industrial Coating System:

    a. Prime Coat: Primer, galvanized, water based**, MPI #134**.
    b. Intermediate Coat: Light industrial coating, exterior, water based, matching topcoat.
    c. Topcoat: Light industrial coating, exterior, water based, semi-gloss (Gloss Level 5), **MPI #163**.

END OF SECTION 099113

SECTION 220719 - PLUMBING PIPING INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes insulating the following plumbing piping services:

1. Stormwater piping exposed to freezing conditions.
2. Roof drains and rainwater leaders.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated. Include thermal conductivity, water-vapor permeance thickness, and jackets (both factory- and field-applied, if any).

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

1. Detail application of protective shields, saddles, and inserts at hangers for each type of insulation and hanger.
2. Detail insulation application at pipe expansion joints for each type of insulation.
3. Detail insulation application at elbows, fittings, flanges, valves, and specialties for each type of insulation.
4. Detail removable insulation at piping specialties, equipment connections, and access panels.
5. Detail application of field-applied jackets.
6. Detail application at linkages of control devices.

C. Samples: For each type of insulation and jacket indicated. Identify each Sample, describing product and intended use. Sample sizes are as follows:

1. Preformed Pipe Insulation Materials: 12 inches long by NPS 2.
2. Jacket Materials for Pipe: 12 inches long by NPS 2.
3. Sheet Jacket Materials: 12 inches square.
4. Manufacturer's Color Charts: For products where color is specified, show the full range of colors available for each type of finish material.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer.

B. Material Test Reports: From a qualified testing agency acceptable to authorities having jurisdiction indicating, interpreting, and certifying test results for compliance of insulation materials, sealers, attachments, cements, and jackets, with requirements indicated. Include dates of tests and test methods employed.

C. Field quality-control reports.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Skilled mechanics who have successfully completed an apprenticeship program or another craft training program certified by the Department of Labor, Bureau of Apprenticeship and Training.

B. Surface-Burning Characteristics: For insulation and related materials, as determined by testing identical products according to ASTM E 84 by a testing agency acceptable to authorities having jurisdiction. Factory label insulation and jacket materials and adhesive, mastic, tapes, and cement material containers, with appropriate markings of applicable testing agency.

1. Insulation Installed Indoors: Flame-spread index of 25 or less, and smoke-developed index of 50 or less.
2. Insulation Installed Outdoors: Flame-spread index of 75 or less, and smoke-developed index of 150 or less.

C. Comply with the following applicable standards and other requirements specified for miscellaneous components:

1. Supply and Drain Protective Shielding Guards: ICC A117.1.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Packaging: Insulation material containers shall be marked by manufacturer with appropriate ASTM standard designation, type and grade, and maximum use temperature.

1.7 COORDINATION

A. Coordinate sizes and locations of supports, hangers, and insulation shields specified in Section 220529 "Hangers and Supports for Plumbing Piping and Equipment."

B. Coordinate clearance requirements with piping Installer for piping insulation application. Before preparing piping Shop Drawings, establish and maintain clearance requirements for installation of insulation and field-applied jackets and finishes and for space required for maintenance.

1.8 SCHEDULING

A. Schedule insulation application after pressure testing systems. Insulation application may begin on segments that have satisfactory test results.

B. Complete installation and concealment of plastic materials as rapidly as possible in each area of construction.

PART 2 - PRODUCTS

2.1 INSULATION MATERIALS

A. Pipe insulation thickness shall conform to ASHRAE 90.1 2007, Table 6.8.3.

B. Comply with requirements in "Piping Insulation Schedule, General" and "Indoor Piping Insulation Schedule" articles for where insulating materials shall be applied.

C. Products shall not contain asbestos, lead, mercury, or mercury compounds.

D. Products that come in contact with stainless-steel shall have a leachable chloride content of less than 50 ppm when tested according to ASTM C 871.

E. Insulation materials for use on austenitic stainless-steel shall be qualified as acceptable according to ASTM C 795.

F. Foam insulation materials shall not use CFC or HCFC blowing agents in the manufacturing process.

G. Mineral-Fiber, Preformed Pipe Insulation:

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Johns Manville; a Berkshire Hathaway company; **Micro-Lok**
b. Knauf Insulation; **Earthwool 1000 Degree Pipe Insulation with ECOSE Technology**
c. Owens Corning; **Fiberglas Pipe Insulation**

2. Type I, 850 Deg F Materials: Mineral or glass fibers bonded with a thermosetting resin. Comply with ASTM C 547, Type I, Grade A, with factory-applied ASJ-SSL. Factory-applied jacket requirements are specified in "Factory-Applied Jackets" Article.

2.2 INSULATING CEMENTS

A. Mineral-Fiber Insulating Cement: Comply with ASTM C 195.

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Ramco Insulation, Inc; **Super-Stik**

B. Expanded or Exfoliated Vermiculite Insulating Cement: Comply with ASTM C 196.

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Ramco Insulation, Inc; **Thermokote V**

C. Mineral-Fiber, Hydraulic-Setting Insulating and Finishing Cement: Comply with ASTM C 449.

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Ramco Insulation, Inc; **Ramcote 1200** and **Quik-Cote**

2.3 ADHESIVES

A. Materials shall be compatible with insulation materials, jackets, and substrates and for bonding insulation to itself and to surfaces to be insulated, unless otherwise indicated.

B. Cellular-Glass Adhesive: Two-component, thermosetting urethane adhesive containing no flammable solvents, with a service temperature range of minus 100 to plus 200 deg F.

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Foster Brand; H. B. Fuller Construction Products; **81-84**

2. For indoor applications, adhesive shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

C. Mineral-Fiber Adhesive: Comply with MIL-A-3316C, Class 2, Grade A.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-127**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; **85-60/85-70**
d. Mon-Eco Industries, Inc; **22-25**

2. For indoor applications, adhesive shall have a VOC content of 80 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

D. ASJ Adhesive, and FSK Jacket Adhesive: Comply with MIL-A-3316C, Class 2, Grade A for bonding insulation jacket lap seams and joints.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-82**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; **85-20**
d. Mon-Eco Industries, Inc; **22-25**

2. For indoor applications, adhesive shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.4 MASTICS

A. Materials shall be compatible with insulation materials, jackets, and substrates; comply with MIL-PRF-19565C, Type II.

1. For indoor applications, use mastics that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

B. Breather Mastic: Water based; suitable for indoor and outdoor use on above-ambient services.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-10**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; 4**6-50**
d. Knauf Insulation; EXPERT Mastics - **KI-705 ASJ+**
e. Mon-Eco Industries, Inc; **55-50**
f. Vimasco Corporation; **WC-1/WC-5**

2. Water-Vapor Permeance: ASTM F 1249, 1.8 perms at 0.0625-inch dry film thickness.
3. Service Temperature Range: Minus 20 to plus 180 deg F.
4. Solids Content: Sixty percent (60%) by volume and sixty-six percent (66%) by weight.
5. Color: White.

2.5 LAGGING ADHESIVES

A. Description: Comply with MIL-A-3316C, Class I, Grade A, and shall be compatible with insulation materials, jackets, and substrates.

1. For indoor applications, use lagging adhesives that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
2. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-50 AHV2**
b. Foster Brand; H. B. Fuller Construction Products; **30-36**
c. Vimasco Corporation; **713** and **714**

3. Fire-resistant, water-based lagging adhesive and coating for use indoors to adhere fire-resistant lagging cloths over pipe insulation.
4. Service Temperature Range: 0 to plus 180 deg F.
5. Color: White.

2.6 SEALANTS

A. Joint Sealants:

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-76**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; **30-45**
d. Mon-Eco Industries, Inc; **44-05**
e. Pittsburgh Corning Corporation; **Pittseal 444**

2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Permanently flexible, elastomeric sealant.
4. Service Temperature Range: Minus 100 to plus 300 deg F.
5. Color: White or gray.
6. For indoor applications, sealants shall have a VOC content of 420 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

B. FSK and Metal Jacket Flashing Sealants:

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-76**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; **95-44**
d. Mon-Eco Industries, Inc; **44-05**

2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Fire- and water-resistant, flexible, elastomeric sealant.
4. Service Temperature Range: Minus 40 to plus 250 deg F.
5. Color: Aluminum.
6. For indoor applications, sealants shall have a VOC content of 420 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

C. ASJ Flashing Sealants, and Vinyl, PVDC, and PVC Jacket Flashing Sealants:

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-76**

2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Fire- and water-resistant, flexible, elastomeric sealant.
4. Service Temperature Range: Minus 40 to plus 250 deg F.
5. Color: White.
6. For indoor applications, sealants shall have a VOC content of 420 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.7 FACTORY-APPLIED JACKETS

A. Insulation system schedules indicate factory-applied jackets on various applications. When factory-applied jackets are indicated, comply with the following:

1. ASJ: White, Kraft-paper, fiberglass-reinforced scrim with aluminum-foil backing; complying with ASTM C 1136, Type I.
2. ASJ-SSL: ASJ with self-sealing, pressure-sensitive, acrylic-based adhesive covered by a removable protective strip; complying with ASTM C 1136, Type I.
3. FSK Jacket: Aluminum-foil, fiberglass-reinforced scrim with Kraft-paper backing; complying with ASTM C 1136, Type II.

2.8 FIELD-APPLIED JACKETS

A. Field-applied jackets shall comply with ASTM C 921, Type I, unless otherwise indicated.

B. PVC Jacket: High-impact-resistant, UV-resistant PVC complying with ASTM D 1784, Class 16354-C; thickness as scheduled; roll stock ready for shop or field cutting and forming. Thickness is indicated in field-applied jacket schedules.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Johns Manville; a Berkshire Hathaway company; **Zeston**
b. P.I.C. Plastics, Inc; **FG Series**
c. Proto Corporation; **LoSmoke**
d. Speedline Corporation; **SmokeSafe**

2. Adhesive: As recommended by jacket material manufacturer.
3. Color: Color-code jackets based on system. Color as selected by Architect.
4. Factory-fabricated fitting covers to match jacket if available; otherwise, field fabricate.

a. Shapes: 45- and 90-degree, short- and long-radius elbows, tees, valves, flanges, unions, reducers, end caps, soil-pipe hubs, traps, mechanical joints, and P-trap and supply covers for lavatories.

2.9 TAPES

A. ASJ Tape: White vapor-retarder tape matching factory-applied jacket with acrylic adhesive, complying with ASTM C 1136.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

    a. Avery Dennison Corporation, Specialty Tapes Division; **Fasson 0836**
    b. Compac Corporation; **104** and **105**
    c. Ideal Tape Co., Inc,; an American Biltrite company; **428 AWF ASJ**
    d. Knauf Insulation; EXPERT Tapes - **ASJ+ Tape**
    e. Venture Tape; **1540 CW Plus**, **1542 CW Plus**, and **1542 CW Plus/SQ**

2. Width: 3 inches.
3. Thickness: 11.5 mils.
4. Adhesion: 90 ounces force/inch in width.
5. Elongation: Two percent (2%).
6. Tensile Strength: 40 lbf/inch in width.
7. ASJ Tape Disks and Squares: Precut disks or squares of ASJ tape.

B. FSK Tape: Foil-face, vapor-retarder tape matching factory-applied jacket with acrylic adhesive; complying with ASTM C 1136.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

    a. Avery Dennison Corporation, Specialty Tapes Division; **Fasson 0827**
    b. Compac Corporation; **110** and **111**
    c. Ideal Tape Co., Inc,; an American Biltrite company; **491 AWF FSK**
    d. Knauf Insulation; EXPERT Tapes - **FSK Tape**
    e. Venture Tape; **1525 CW NT**, **1528 CW**, and **1528 CW/SQ**

2. Width: 3 inches.
3. Thickness: 6.5 mils.
4. Adhesion: 90 ounces force/inch in width.
5. Elongation: Two percent (2%).
6. Tensile Strength: 40 lbf/inch in width.
7. FSK Tape Disks and Squares: Precut disks or squares of FSK tape.

C. PVC Tape: White vapor-retarder tape matching field-applied PVC jacket with acrylic adhesive; suitable for indoor and outdoor applications.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

    a. Compac Corporation
    b. Ideal Tape Co., Inc,; an American Biltrite company; **370 White PVC tape**
    c. Venture Tape; **1506 CW NS**

2. Width: 2 inches.
3. Thickness: 6 mils.
4. Adhesion: 64 ounces force/inch in width.
5. Elongation: Five hundred percent (500%).
6. Tensile Strength: 18 lbf/inch in width.

D. Aluminum-Foil Tape: Vapor-retarder tape with acrylic adhesive.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Avery Dennison Corporation, Specialty Tapes Division; **Fasson 0800**
b. Compac Corporation
c. Ideal Tape Co., Inc,; an American Biltrite company; **488 AWF**
d. Knauf Insulation; EXPERT Tapes - **2 Mil Foil Tape**
e. Venture Tape; **3520 CW**

2. Width: 2 inches.
3. Thickness: 3.7 mils.
4. Adhesion: 100 ounces force/inch in width.
5. Elongation: Five percent (5%).
6. Tensile Strength: 34 lbf/inch in width.

2.10 SECUREMENTS

A. Bands:

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. ITW Insulation Systems; Illinois Tool Works, Inc; **Gerrard Strapping and Seals**
b. RPR Products, Inc; **Insul-Mate Strapping and Seals**

2. Stainless-Steel: ASTM A 167 or ASTM A 240, Type 316; 0.015-inch-thick, ¾-inch-wide with wing seal or closed seal.
3. Aluminum: ASTM B 209, Alloy 3003, 3005, 3105, or 5005; Temper H-14, 0.020-inch-thick, ¾-inch-wide with wing seal or closed seal.

B. Staples: Outward-clinching insulation staples, nominal ¾-inch-wide, stainless-steel or Monel.

C. Wire: 0.062-inch soft-annealed, stainless-steel.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. C & F Wire

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of insulation application.

1. Verify that systems to be insulated have been tested and are free of defects.
2. Verify that surfaces to be insulated are clean and dry.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Preparation: Clean and dry surfaces to receive insulation. Remove materials that will adversely affect insulation application.

B. Mix insulating cements with clean potable water; if insulating cements are to be in contact with stainless-steel surfaces, use demineralized water.

3.3 GENERAL INSTALLATION REQUIREMENTS

A. Install insulation materials, accessories, and finishes with smooth, straight, and even surfaces; free of voids throughout the length of piping including fittings, valves, and specialties.

B. Install insulation materials, forms, vapor barriers or retarders, jackets, and thicknesses required for each item of pipe system as specified in insulation system schedules.

C. Install accessories compatible with insulation materials and suitable for the service. Install accessories that do not corrode, soften, or otherwise attack insulation or jacket in either wet or dry state.

D. Install insulation with longitudinal seams at top and bottom of horizontal runs.

E. Install multiple layers of insulation with longitudinal and end seams staggered.

F. Do not weld brackets, clips, or other attachment devices to piping, fittings, and specialties.

G. Keep insulation materials dry during application and finishing.

H. Install insulation with tight longitudinal seams and end joints. Bond seams and joints with adhesive recommended by insulation material manufacturer.

I. Install insulation with least number of joints practical.

J. Where vapor barrier is indicated, seal joints, seams, and penetrations in insulation at hangers, supports, anchors, and other projections with vapor-barrier mastic.

1. Install insulation continuously through hangers and around anchor attachments.
2. For insulation application where vapor barriers are indicated, extend insulation on anchor legs from point of attachment to supported item to point of attachment to structure. Taper and seal ends at attachment to structure with vapor-barrier mastic.
3. Install insert materials and install insulation to tightly join the insert. Seal insulation to insulation inserts with adhesive or sealing compound recommended by insulation material manufacturer.
4. Cover inserts with jacket material matching adjacent pipe insulation. Install shields over jacket, arranged to protect jacket from tear or puncture by hanger, support, and shield.

K. Apply adhesives, mastics, and sealants at manufacturer's recommended coverage rate and wet and dry film thicknesses.

L. Install insulation with factory-applied jackets as follows:

1. Draw jacket tight and smooth.
2. Cover circumferential joints with 3-inch-wide strips of same material as insulation jacket. Secure strips with adhesive and outward clinching staples along both edges of strip, spaced 4 inches o.c.
3. Overlap jacket longitudinal seams at least 1½ inches. Install insulation with longitudinal seams at bottom of pipe. Clean and dry surface to receive self-sealing lap. Staple laps with outward clinching staples along edge at 2 inches o.c.

    a. For below-ambient services, apply vapor-barrier mastic over staples.

4. Cover joints and seams with tape, according to insulation material manufacturer's written instructions, to maintain vapor seal.
5. Where vapor barriers are indicated, apply vapor-barrier mastic on seams and joints and at ends adjacent to pipe flanges and fittings.

M. Cut insulation in a manner to avoid compressing insulation more than seventy-five percent (75%) of its nominal thickness.

N. Finish installation with systems at operating conditions. Repair joint separations and cracking due to thermal movement.

O. Repair damaged insulation facings by applying same facing material over damaged areas. Extend patches at least 4 inches beyond damaged areas. Adhere, staple, and seal patches similar to butt joints.

P. For above-ambient services, do not install insulation to the following:

1. Vibration-control devices.
2. Testing agency labels and stamps.
3. Nameplates and data plates.
4. Cleanouts.

3.4 PENETRATIONS

A. Insulation Installation at Roof Penetrations: Install insulation continuously through roof penetrations.

1. Seal penetrations with flashing sealant.
2. For applications requiring only indoor insulation, terminate insulation above roof surface and seal with joint sealant. For applications requiring indoor and outdoor insulation, install insulation for outdoor applications tightly joined to indoor insulation ends. Seal joint with joint sealant.
3. Extend jacket of outdoor insulation outside roof flashing at least 2 inches below top of roof flashing.
4. Seal jacket to roof flashing with flashing sealant.

B. Insulation Installation at Aboveground Exterior Wall Penetrations: Install insulation continuously through wall penetrations.

1. Seal penetrations with flashing sealant.
2. For applications requiring only indoor insulation, terminate insulation inside wall surface and seal with joint sealant. For applications requiring indoor and outdoor insulation, install insulation for outdoor applications tightly joined to indoor insulation ends. Seal joint with joint sealant.
3. Extend jacket of outdoor insulation outside wall flashing and overlap wall flashing at least 2 inches.
4. Seal jacket to wall flashing with flashing sealant.

C. Insulation Installation at Interior Wall and Partition Penetrations (That Are Not Fire Rated): Install insulation continuously through walls and partitions.

D. Insulation Installation at Fire-Rated Wall and Partition Penetrations: Install insulation continuously through penetrations of fire-rated walls and partitions.

1. Comply with requirements in Section 078413 "Penetration Firestopping" for firestopping and fire-resistive joint sealers.

E. Insulation Installation at Floor Penetrations:

1. Pipe: Install insulation continuously through floor penetrations.
2. Seal penetrations through fire-rated assemblies. Comply with requirements in Section 078413 "Penetration Firestopping."

3.5 GENERAL PIPE INSULATION INSTALLATION

A. Requirements in this article generally apply to all insulation materials except where more specific requirements are specified in various pipe insulation material installation articles.

B. Insulation Installation on Fittings, Valves, Strainers, Flanges, and Unions:

1. Install insulation over fittings, valves, strainers, flanges, unions, and other specialties with continuous thermal and vapor-retarder integrity unless otherwise indicated.
2. Insulate pipe elbows using preformed fitting insulation, mitered fittings made from same material and density as adjacent pipe insulation or PVC fitting cover manufacturer recommended flexible fiberglass inserts. Each piece shall be butted tightly against adjoining piece and bonded with adhesive. Fill joints, seams, voids, and irregular surfaces with insulating cement finished to a smooth, hard, and uniform contour that is uniform with adjoining pipe insulation.
3. Insulate tee fittings with preformed fitting insulation or sectional pipe insulation of same material and thickness as used for adjacent pipe. Cut sectional pipe insulation to fit. Butt each section closely to the next and hold in place with tie wire. Bond pieces with adhesive.
4. Insulate valves using preformed fitting insulation or sectional pipe insulation of same material, density, and thickness as used for adjacent pipe. Overlap adjoining pipe insulation by not less than two (2) times the thickness of pipe insulation, or one (1) pipe diameter, whichever is thicker. For valves, insulate up to and including the bonnets, valve stuffing-box studs, bolts, and nuts. Fill joints, seams, and irregular surfaces with insulating cement.
5. Insulate strainers using preformed fitting insulation or sectional pipe insulation of same material, density, and thickness as used for adjacent pipe. Overlap adjoining pipe insulation by not less than two (2) times the thickness of pipe insulation, or one (1) pipe diameter, whichever is thicker. Fill joints, seams, and irregular surfaces with insulating cement. Insulate strainers so strainer basket flange or plug can be easily removed and replaced without damaging the insulation and jacket. Provide a removable reusable insulation cover. For below-ambient services, provide a design that maintains vapor barrier.
6. Insulate flanges and unions using a section of oversized preformed pipe insulation. Overlap adjoining pipe insulation by not less than two (2) times the thickness of pipe insulation, or one (1) pipe diameter, whichever is thicker.
7. Cover segmented insulated surfaces with a layer of finishing cement and coat with a mastic. Install vapor-barrier mastic for below-ambient services and a breather mastic for above-ambient services. Reinforce the mastic with fabric-reinforcing mesh. Trowel the mastic to a smooth and well-shaped contour.
8. For services not specified to receive a field-applied jacket except for flexible elastomeric and polyolefin, install fitted PVC cover over elbows, tees, strainers, valves, flanges, and unions. Terminate ends with PVC end caps. Tape PVC covers to adjoining insulation facing using PVC tape.
9. Stencil or label the outside insulation jacket of each union with the word "union." Match size and color of pipe labels.

C. Insulate instrument connections for thermometers, pressure gages, pressure temperature taps, test connections, flow meters, sensors, switches, and transmitters on insulated pipes. Shape insulation at these connections by tapering it to and around the connection with insulating cement and finish with finishing cement, mastic, and flashing sealant.

D. Install removable insulation covers at locations indicated. Installation shall conform to the following:

1. Make removable flange and union insulation from sectional pipe insulation of same thickness as that on adjoining pipe. Install same insulation jacket as adjoining pipe insulation.
2. When flange and union covers are made from sectional pipe insulation, extend insulation from flanges or union long at least two (2) times the insulation thickness over adjacent pipe insulation on each side of flange or union. Secure flange cover in place with stainless-steel or aluminum bands. Select band material compatible with insulation and jacket.
3. Construct removable valve insulation covers in same manner as for flanges, except divide the two-part section on the vertical center line of valve body.
4. When covers are made from block insulation, make two (2) halves, each consisting of mitered blocks wired to stainless-steel fabric. Secure this wire frame, with its attached insulation, to flanges with tie wire. Extend insulation at least 2 inches over adjacent pipe insulation on each side of valve. Fill space between flange or union cover and pipe insulation with insulating cement. Finish cover assembly with insulating cement applied in two coats. After first coat is dry, apply and trowel second coat to a smooth finish.
5. Unless a PVC jacket is indicated in field-applied jacket schedules, finish exposed surfaces with a metal jacket.

3.6 INSTALLATION OF MINERAL-FIBER INSULATION

A. Insulation Installation on Straight Pipes and Tubes:

1. Secure each layer of preformed pipe insulation to pipe with wire or bands and tighten bands without deforming insulation materials.
2. Where vapor barriers are indicated, seal longitudinal seams, end joints, and protrusions with vapor-barrier mastic and joint sealant.
3. For insulation with factory-applied jackets on above-ambient surfaces, secure laps with outward clinched staples at 6 inches o.c.
4. For insulation with factory-applied jackets on below-ambient surfaces, do not staple longitudinal tabs. Instead, secure tabs with additional adhesive as recommended by insulation material manufacturer and seal with vapor-barrier mastic and flashing sealant.

B. Insulation Installation on Pipe Flanges:

1. Install preformed pipe insulation to outer diameter of pipe flange.
2. Make width of insulation section same as overall width of flange and bolts, plus twice the thickness of pipe insulation.
3. Fill voids between inner circumference of flange insulation and outer circumference of adjacent straight pipe segments with mineral-fiber blanket insulation.
4. Install jacket material with manufacturer's recommended adhesive, overlap seams at least 1 inch, and seal joints with flashing sealant.

C. Insulation Installation on Pipe Fittings and Elbows:

1. Install preformed sections of same material as straight segments of pipe insulation when available.

2. When preformed insulation elbows and fittings are not available, install mitered sections of pipe insulation, to a thickness equal to adjoining pipe insulation. Secure insulation materials with wire or bands.

D. Insulation Installation on Valves and Pipe Specialties:

1. Install preformed sections of same material as straight segments of pipe insulation when available.
2. When preformed sections are not available, install mitered sections of pipe insulation to valve body.
3. Arrange insulation to permit access to packing and to allow valve operation without disturbing insulation.
4. Install insulation to flanges as specified for flange insulation application.

3.7 FIELD-APPLIED JACKET INSTALLATION

A. Where glass-cloth jackets are indicated, install directly over bare insulation or insulation with factory-applied jackets.

1. Draw jacket smooth and tight to surface with 2-inch overlap at seams and joints.
2. Embed glass cloth between two (2) 0.062-inch-thick coats of lagging adhesive.
3. Completely encapsulate insulation with coating, leaving no exposed insulation.

B. Where FSK jackets are indicated, install as follows:

1. Draw jacket material smooth and tight.
2. Install lap or joint strips with same material as jacket.
3. Secure jacket to insulation with manufacturer's recommended adhesive.
4. Install jacket with 1½-inch laps at longitudinal seams and 3-inch-wide joint strips at end joints.
5. Seal openings, punctures, and breaks in vapor-retarder jackets and exposed insulation with vapor-barrier mastic.

C. Where PVC jackets are indicated, install with 1-inch overlap at longitudinal seams and end joints. Seal with manufacturer's recommended adhesive.

1. Apply two (2) continuous beads of adhesive to seams and joints, one bead under lap and the finish bead along seam and joint edge.

D. Where metal jackets are indicated, install with 2-inch overlap at longitudinal seams and end joints. Overlap longitudinal seams arranged to shed water. Seal end joints with weatherproof sealant recommended by insulation manufacturer. Secure jacket with stainless-steel bands 12 inches o.c. and at end joints.

3.8 FINISHES

A. Insulation with ASJ, Glass-Cloth, or Other Paintable Jacket Material: Paint jacket with paint system identified below.

1. Flat Acrylic Finish: Two (2) finish coats over a primer that is compatible with jacket material and finish coat paint. Add fungicidal agent to render fabric mildew proof.

a. Finish Coat Material: Interior, flat, latex-emulsion size.

B. Flexible Elastomeric Thermal Insulation: After adhesive has fully cured, apply two (2) coats of insulation manufacturer's recommended protective coating.

C. Color: As selected by Architect and Owner from manufacturer’s entire range. Vary first and second coats to allow visual inspection of the completed Work.

D. Do not field paint aluminum or stainless-steel jackets.

3.9 FIELD QUALITY CONTROL

A. Perform tests and inspections.

B. Tests and Inspections:

1. Inspect pipe, fittings, strainers, and valves, randomly selected by Architect, by removing field-applied jacket and insulation in layers in reverse order of their installation. Extent of inspection shall be limited to three (3) locations of straight pipe, three (3) locations of threaded fittings, three (3) locations of welded fittings, two (2) locations of threaded strainers, two (2) locations of welded strainers, three (3) locations of threaded valves, and three (3) locations of flanged valves for each pipe service defined in the "Piping Insulation Schedule, General" Article.

C. All insulation applications will be considered defective Work if sample inspection reveals noncompliance with requirements.

3.10 PIPING INSULATION SCHEDULE, GENERAL

A. Acceptable preformed pipe and tubular insulation materials and thicknesses are identified for each piping system and pipe size range. If more than one material is listed for a piping system, selection from materials listed is Contractor's option.

B. Items Not Insulated: Unless otherwise indicated, do not install insulation on the following:

1. Drainage piping located in crawl spaces.
2. Underground piping.
3. Chrome-plated pipes and fittings unless there is a potential for personnel injury.

3.11 INDOOR PIPING INSULATION SCHEDULE

A. Stormwater and Overflow:

1. All Pipe Sizes: Insulation shall be the following:

a. Mineral-Fiber, Preformed Pipe Insulation, Type I: 1-inch-thick.

B. Roof Drain and Overflow Drain Bodies:

1. All Pipe Sizes: Insulation shall be the following:

a. Mineral-Fiber, Preformed Pipe Insulation, Type I: 1-inch-thick.

3.12 INDOOR, FIELD-APPLIED JACKET SCHEDULE

A. Install jacket over insulation material. For insulation with factory-applied jacket, install the field-applied jacket over the factory-applied jacket. If more than one material is listed, selection from materials listed is Contractor's option.

B. Piping, Concealed:

1. None.

C. Piping, Exposed:

1. PVC: 20 mils thick.

END OF SECTION 220719

SECTION 221423 - STORM DRAINAGE PIPING SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Pipe, tube, and fittings.
2. Roof drains.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

1.4 QUALITY ASSURANCE

A. Drainage piping specialties shall bear label, stamp, or other markings of specified testing agency.

PART 2 - PRODUCTS

2.1 CAST-IRON PIPE AND FITTINGS

A. Pipe and Fittings: ASTM A 74, Service classes.

B. Gaskets: ASTM C 564, rubber.

C. Caulking Materials: ASTM B 29, pure lead and oakum or hemp fiber.

2.2 METAL ROOF DRAINS

A. Cast-Iron, Large-Sump, General-Purpose Roof Drains:

1. Basis-of-Design Product: Subject to compliance with requirements, provide Josam Company; **Series 21500** or comparable product by one (1) of the following:

   a. Smith, Jay R. Mfg. Co.
   b. Watts; a Watts Water Technologies company
   c. Zurn Industries, LLC

2. Standard: ASME A112.6.4, for general-purpose roof drains.
3. Body Material: Cast iron.
4. Dimension of Body: Nominal 15-inch diameter.
5. Combination Flashing Ring and Gravel Stop: Required.
6. Outlet: Bottom.
7. Extension Collars: Required.

8. Underdeck Clamp: Required.
9. Sump Receiver Plate: Required.
10. Dome Material: Cast iron.
11. Perforated Gravel Guard: Not required.
12. Vandal-Proof Dome: Required.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install piping at indicated slopes.

B. Install piping free of sags and bends.

C. Install fittings for changes in direction and branch connections.

D. Make changes in direction for storm drainage piping using appropriate branches, bends, and long-sweep bends. Do not change direction of flow more than 90 degrees. Use proper size of standard increasers and reducers if pipes of different sizes are connected. Reducing size of drainage piping in direction of flow is prohibited.

E. Install roof drains at low points of roof areas according to roof membrane manufacturer's written installation instructions.

1. Install flashing collar or flange of roof drain to prevent leakage between drain and adjoining roofing. Maintain integrity of waterproof membranes where penetrated.
2. Install expansion joints, if indicated, in roof drain outlets.
3. Position roof drains for easy access and maintenance.

3.2 PROTECTION

A. Protect drains during remainder of construction period to avoid clogging with dirt or debris and to prevent damage from traffic or construction work.

B. Place plugs in ends of uncompleted piping at end of each day or when work stops.

END OF SECTION 221423

PROJECT NAME:

PARTIAL ROOF REPLACEMENT AT:

JOHN F. KENNEDY HIGH SCHOOL

422 HIGHLAND AVENUE
WATERBURY, CONNECTICUT 06708

PROJECT LOCATION:



DRAWING LIST

COVER SHEET

ARCHITECTURAL:

- C1 CODE INFORMATION
- A1 OVERALL ROOF PLAN
- A2 ROOF PLAN PART "1"
- A3 ROOF PLAN PART "2"
- A4 ROOF DETAILS

ARCHITECT
SILVER PETRUCELLI & ASSOC.
3190 WHITNEY AVENUE, HAMDEN CT 06518
311 STATE STREET NEW LONDON, CT 06320
PHONE 203 230 9007 silverpetrucelli.com

SILVER PETRUCELLI + ASSOCIATES

3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

CONSTRUCTION DOCUMENT SUBMISSION 03/27/2023

ISSUE FOR BID: 10/23/23

CODE INFORMATION

DATE OF ORIGINAL CONSTRUCTION	1963
DATE OF ADDITION	

1. GROUP CLASSIFICATION (CHAPTER 3)

(PRIMARY)	E-EDUCATIONAL
(INCIDENTAL)	A3-ASSEMBLY

2. CONSTRUCTION TYPE (CHAPTER 6)

MINIMUM TYPE REQUIRED	2B
ACTUAL TYPE PROVIDED (EXISTING)	--
(NEW)	2B

3. BUILDING HEIGHT (CHAPTER 5)

ALLOWABLE HEIGHT (STORY/FEET)	3/75'-0"
ACTUAL HEIGHT (STORY/FEET)	1/50'-0"
(STORIES ABOVE GRADE)	2

4. BUILDING AREA (CHAPTER 5)

A) BUILDING AREA (FIRST)

EXISTING CONSTRUCTION	156,626	sq.ft.
NEW CONSTRUCTION	0	sq.ft.
TOTAL FLOOR	156,626	sq.ft.

B) BUILDING AREA (SECOND)

EXISTING CONSTRUCTION	156,626	sq.ft.
NEW CONSTRUCTION	0	sq.ft.
TOTAL FLOOR	156,626	sq.ft.
TOTAL (ALL FLOORS)	156,626	sq.ft.

5. AREA MODIFICATIONS TO TABLE 503 (FOR EACH SEPARATE BUILDING AS DEFINED BY FIRE WALLS AND/OR EXTERIOR WALLS)

NA

6. CASE 1 - SINGLE OCCUPANCY OR NONSEPARATED USES (302.3.1)
(ALLOWABLE AREA 506.4)

NA

7. CASE 2 - MIXED OCCUPANCY SEPARATED USES (302.3.2)
(ALLOWABLE AREA 506.4)

NA

8. FIRE-RESISTANCE RATED REQUIREMENTS FOR BUILDING ELEMENTS
(TABLE 601, SEE CODE PLANS FOR SPECIFIC DESIGNATIONS)

1	STRUCTURAL FRAME: INCLUDING COLUMNS, GIRDERS, TRUSSES	0	Hr(s)
2	BEARING WALLS: EXTERIOR (TABLE 602)	0/1	Hr(s)
	INTERIOR	0	Hr(s)
3	NONBEARING WALLS & PARTITIONS EXTERIOR (TABLE 602)	0/1	Hr(s)
4	NONBEARING WALLS & PARTITIONS INTERIOR	0	Hr(s)
5	FLOOR CONSTRUCTION (INCLUDING SUPPORTING BEAMS & JOISTS)	0	Hr(s)
6	ROOF CONSTRUCTION (INCLUDING SUPPORTING BEAMS & JOISTS)	0	Hr(s)

9. OCCUPANCY LOAD

DESIGN TOTAL FOR BASEMENT	NA
TOTAL EXIT CAPACITY FOR BASEMENT	NA
DESIGN TOTAL FOR FIRST FLOOR	NA
TOTAL EXIT CAPACITY FOR FIRST FLOOR	NA
DESIGN TOTAL FOR BUILDING	NA
TOTAL EXIT CAPACITY FOR BUILDING	NA

10. MODIFICATIONS

	APPROVED	NOT APPROVED

11. ACCESSIBLE BUILDING

X	DESIGNATED
	NON DESIGNATED

12. MINIMUM PLUMBING FIXTURE COUNT (I.P.C. CHAPTER 4)
FOR EACH TYPE OF OCCUPANCY PER ENTIRE FACILITY

GROUP "A3" OCCUPANCY
(DESIGN LOAD = NA)

	REQUIRED	PROVIDED
W/C MALE	NA	NA
W/C FEMALE	NA	NA
LAVS	NA	NA
D/F	NA	NA
W/C UNISEX	NA	NA
LAVS UNISEX	NA	NA

GROUP "E" OCCUPANCY,
(DESIGN LOAD = NA)

W/C	NA	NA
LAVS	NA	NA
D/F	NA	NA

(TOTAL DESIGN LOAD FOR ENTIRE FACILITY = NA)

	YES	NO
13. ENTIRE BUILDINGS SPRINKLERED		X
14. THRESHOLD BUILDING CONDITIONS		X

15. CODES TO WHICH THIS PROJECT WAS DESIGNED

State Building Code	2021 IBC CTSBC/2022 AMEND.
State Mechanical Code	2017 ICC
State Plumbing Code	2015 IPC
State Energy Conservation Code	2015 IECC
State Electrical Code	2020 NFPA 70
State Health Code	MOST CURRENT
OSHA	MOST CURRENT
Section 504	CURRENT
ADA	MOST CURRENT
ANSI 117.1	MOST CURRENT

16. BUILDING AREAS FOR GRANT CALCULATION (ENTIRE FACILITY)

(MEASURED TO INSIDE FACE OF EXTERIOR WALLS)

EXISTING UNRENOVATED CONSTRUCTION	0	SQ.FT.
EXISTING RENOVATED CONSTRUCTION	0	SQ.FT.
EXISTING BEING DEMOLISHED	0	SQ.FT.
TOTAL EXISTING CONSTRUCTION	156,626	SQ.FT.
TOTAL NEW CONSTRUCTION	0	SQ.FT.
TOTAL FACILITY	156,626	SQ.FT.

OPEN AREAS (NOT INCLUDED IN TOTAL FACILITY)

NA	NA	SQ.FT.

17. TOTAL CONSTRUCTED BUILDING AREA (OUTSIDE FACE OF EXTERIOR WALLS INCLUDING OPEN AREAS ABOVE)

NA SQ.FT.

FIRE SAFETY CODE DATA:

1. CLASSIFICATION OF OCCUPANCY	EDUCATIONAL/ASSEMBLY	
2. MINIMUM CONSTRUCTION REQUIRED	2B	
ACTUAL CONSTRUCTION PROVIDED	2A	
3. NOTIFICATION / ALARMS (CFSC 2005, NFPA 72, NATIONAL FIRE ALARM CODE 2002)	YES X	NO
4. DETECTION (CFSC 2005, NFPA 72, NATIONAL FIRE ALARM CODE 2002)	YES X	NO
5. EXTINGUISHMENT REQUIREMENTS (NFPA 13, 2002)	YES X	NO

MEANS OF EGRESS

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT IBC TABLE 1004.1.2

USE	FLOOR AREA IN S.F. PER OCCUPANT
1. CLASSROOMS	20 S.F. NET
2. SHOPS & VOCATIONAL	50 S.F. NET
3. ASSEMBLY	
WITHOUT FIXED SEATS	7 S.F. NET
TABLES AND CHAIRS	15 S.F. NET
4. PLATFORMS	15 S.F. NET
5. LIBRARY	
READING ROOMS	50 S.F. NET
STACK AREA	100 S.F. GROSS
6. LOCKER ROOMS	50 S.F. GROSS
7. MECHANICAL AREAS	300 S.F. GROSS
8. STORAGE	300 S.F. GROSS
9. BUSINESS AREAS	100 S.F. GROSS
10. Courtyards	15 S.F. NET

MAXIMUM LENGTH OF EXIT TRAVEL

1. I.B.C. TABLE 1015.1	250 feet

SYMBOL LEGEND

- X / XX - PLAN SECTION DETAIL OR ELEVATION- SHEET NUMBER
- SL - INDICATES SLOPE DIRECTION OF TAPERED INSULATION AT ¼" PER FOOT
- SL - TAPERED INSULATION CRICKET SLOPED @ ¼" PER FOOT
- @X / X - INDICATES SLOPE DIRECTION & INDICATES EXISTING ROOF PITCH.
- NIC. - NOT IN CONTRACT SCOPE
- WALKWAY PADS, SEE CONSTRUCTION NOTE #2
- ERD. - EXISTING ROOF DRAIN TO BE REMOVED. SEE DEMOLITION NOTES.
- NRD. - NEW ROOF DRAIN TO BE INSTALLED. SEE DETAIL A/A4
- OSC. - EMERGENCY OVERFLOW SCUPPER. SEE DETAIL B/A4
- DL. - NEW HORIZONTAL DRAIN PIPING. SEE CONSTRUCTION NOTE #3
- VS. - EXISTING VENT STACK. SEE DETAIL E/A4
- FU. - EXISTING FAN UNIT. SEE DETAIL G/A4
- MU. - EXISTING MECHANICAL UNIT. SEE DETAIL D/A4
- RTU. - EXISTING ROOF TOP MECHANICAL UNIT. SEE DETAIL H/A4
- SK. - SKYLIGHT. SEE DETAIL K/A4
- RD. - ROOF DIVIDER. SEE DETAIL R/A4
- ED. - EXISTING DOOR. SEE DETAIL Q/A4
- ML. - METAL LADDER. SEE DETAIL N/A4
- GL. - EXISTING GAS LINE, SEE CONSTRUCTION NOTE #4
- EC. - EXISTING ELECTRICAL CONDUIT. SEE CONSTRUCTION NOTE #5
- RH. - ROOF HATCH. SEE DETAIL S/A4

GENERAL NOTES

1. ALL FLAT ROOFS TO RECEIVE ¼" PER FOOT TAPERED RIGID INSULATION MINIMUM UNLESS OTHERWISE NOTED.
2. FIELD VERIFY ALL DIMENSIONS & PERFORM TEST CUTS AT EACH ROOF PRIOR TO THE BID.
3. ALL MATERIALS ARE NEW UNLESS OTHERWISE NOTED "EXISTING".
4. ALL WOOD BLOCKING, PLYWOOD & NAILERS TO BE PRESSURE TREATED. (P.T.)
5. ALL WOOD BLOCKING INDICATED IN DETAILS ARE TO BE ANCHORED TO THE EXISTING STRUCTURE.
6. ALL MEMBRANE FLASHING INDICATED IS TO EXTEND A MINIMUM OF 8", (VERTICAL OR HORIZONTAL)
7. CONTRACTOR IS TO SURVEY THE EXISTING ROOF DECKS W/A LEVEL (AFTER DEMOLITION) TO VERIFY THE SLOPES INDICATED ON PLAN ARE ACCURATE. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY ADDITIONAL ROOFING OPERATIONS.
8. CONTRACTOR IS TO INSPECT THE UNDERSIDE OF ALL ROOF DECKS PRIOR TO ROOFING OPERATIONS TO ENSURE THAT NO INTERIOR MATERIALS, EQUIPMENT, FINISHES OR OBJECTS WILL BE PIERCED OR DAMAGED.
9. CONTRACTOR ASSUMES ALL RESPONSIBILITY DURING PROJECT & WILL REPLACE ANY & ALL DAMAGED EQUIPMENT W/NO ADDITIONAL COST TO OWNER.
10. SITE AREAS DISTURBED SHALL BE CLEANED & RE-LEVELED, W/LAWN AREAS MAGNETICALLY RAKED TO REMOVE ANY METAL DEBRIS & RE-SEEDED AS REQUIRED TO MATCH ADJACENT CONDITIONS.
11. CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR CLEAN UP OF ROOFING MATERIALS & DEBRIS THAT PENETRATES THE INTERIOR ENVELOPE OF THE BUILDING W/NO ADDITIONAL COST TO THE OWNER.
12. SNAKE/CLEAN OUT ALL EXISTING VERTICAL & HORIZONTAL LEADERS OUT TO NEAREST MANHOLE OUTSIDE OF BUILDING.
13. ALL CRICKETS ARE TO BE SLOPED @ A MINIMUM OF ¼" PER FOOT & COORDINATE CRICKETS AROUND EXIST. HVAC UNITS AS REQUIRED TO AVOID PONDING.
14. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL & RE-INSTALLATION OF ALL HVAC UNITS INCLUDING ANY ELECTRICAL OR MECHANICAL CONNECTIONS. THIS MAY INCLUDE THE EXTENSION OF EXISTING ELECTRICAL & DUCTWORK SYSTEMS TO ACCOMMODATE NEW MECHANICAL UNIT CURBING & NEW ROOFING SYSTEM.
15. SNAKE/CLEAN OUT ALL EXISTING VENT STACKS BEFORE THE INSTALLATION OF METAL SLEEVE.
16. ALL DRAIN PIPING IS INSULATED ABOVE THE CEILINGS. THE EXACT ROUTE WILL BE DETERMINED IN THE FIELD. MAKE MINOR ADJUSTMENT IN THE ROUTE AT NO ADDITIONAL COST TO OWNER.
17. NEW ROOF INSULATION TO BE A MINIMUM OF R-30 AT ALL NEW ROOF DRAINS AND/OR THE LOW POINTS OF THE ROOF AREAS.
18. ALL ANTENNAE, CONDUITS & ANY OTHER OBJECTS TO REMAIN AFFECTED BY SCOPE OF WORK, TO BE REMOVED & REINSTALLED.

DEMOLITION NOTES (X)

1. REMOVE EXISTING ROOFING SYSTEM.
2. REMOVE ALL PERIMETER METAL FLASHING WITHIN SCOPE OF WORK.
3. REMOVE EXISTING ROOF DRAINS & SUMP.

CONSTRUCTION NOTES (X)

1. CONTRACTOR TO PROVIDE A SPECIFIED QUANTITY OF EXISTING DECK REPAIR & REPLACEMENT. SEE PROJECT MANUAL.
2. WALKWAY PADS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATION. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION. COORDINATE & FINALIZE EXACT ROUTE W/ OWNER & ARCHITECT.
3. HORIZONTAL ROOF LEADER (MATCH DIAMETER OF EXIST.) ABOVE CEILING SLOPED @ 1/8"/FT MIN. TIE VERTICAL LEADERS INTO EXIST. PIPING AS REQ'D. SEAL ALL PENETRATIONS THROUGH WALLS W/FIRE PUTTY AS REQ'D. BY CODE. PATCH & REPAIR ALL AREAS DAMAGED BY INSTALLATION OF NEW PIPING.
4. EXISTING GAS PIPING TO BE DISCONNECTED & PURGED. RAISE EXISTING GAS PIPING AS REQUIRED TO ACCOMMODATE NEW ROOFING INSULATION HEIGHTS. PROVIDE NEW PIPING EXTENSIONS, JOINTS, FITTINGS & RECONNECT TO EXISTING GAS MAIN. INSTALL ALL EXIST. & NEW GAS PIPING ON NEW PIPE CURBS 24" O.C. PRIME & PAINT ALL EXISTING & NEW GAS PIPING. SEE PROJECT MANUAL.
5. EXISTING ELECTRICAL CONDUIT TO BE DISCONNECTED & RAISED TO ACCOMMODATE NEW ROOF INSULATION HEIGHTS. REMOVE WIRE/CONDUIT & DISPOSE OF. INSTALL NEW CONDUIT & WIRING IN EXIST LOCATIONS & REPLACE ALL EXISTING JUNCTION BOXES TO MATCH EXISTING. SEE PROJECT MANUAL.

ROOF AREAS

ROOF "1"	830	SF.	ROOF "10"	18,843	SF.
ROOF "2"	5,948	SF.	ROOF "11"	735	SF.
ROOF "3"	1,840	SF.	ROOF "12"	2,458	SF.
ROOF "4"	328	SF.	ROOF "13"	18,465	SF.
ROOF "5"	19,308	SF.	ROOF "15"	4,162	SF.
ROOF "6"	13,822	SF.	ROOF "16"	4,151	SF.
ROOF "7"	4,809	SF.	ROOF "17"	6,216	SF.
ROOF "8"	1,918	SF.	ROOF "18"	1,809	SF.
ROOF "9"	135	SF.	ROOF "19"	8,423	SF.

TOTAL ROOF AREAS: 125,000 SF.
THIS AREA IS APPROXIMATE- V.I.F.
IECC CODE REQUIREMENT R-VALUE MIN. R-30
CONNECTICUT ZONE 2B
CBSC REQUIREMENT : R-30 -U.0333

CODE INFORMATION

USE GROUP : B
CONSTRUCTION CLASS: 2B
RISK CATEGORY #3
ULTIMATE DESIGN WIND SPEED: 130 MPH
NOMINAL DESIGN WIND SPEED: 101 MPH

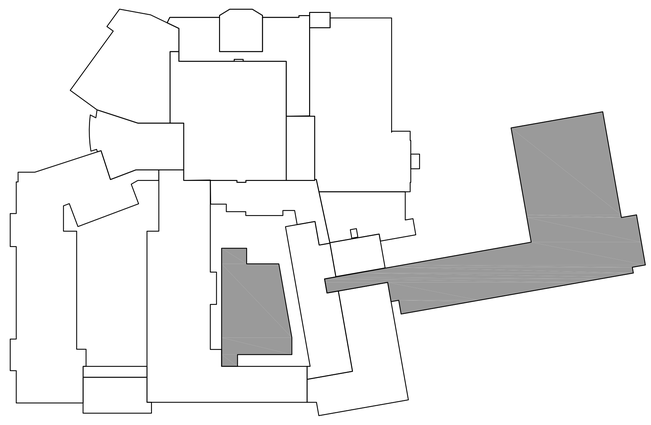
FACTORY MUTUAL ENGINEERING & RESEARCH CORPORATION (FM): ROOF ASSEMBLY CLASSIFICATION OF NON-COMBUSTIBLE CONSTRUCTION, WIND UPLIFT REQUIREMENT OF I-60 FOR FIELD, I-75 FOR PERIMETER AND I-110 FOR CORNERS, IN ACCORDANCE WITH FM PROPERTY LOSS PREVENTION DATA SHEETS 1-28.

ROOF ASSEMBLY

OUTSIDE AIR	0.17
ROOF MEMBRANE	0.33
COVERBOARD	2.20
5" POLYISO INSUL.	29.7
EXISTING DECK	1.23
INSIDE AIR	0.61
R-VALUE TOTAL	34.24

ROOF KEY PLAN

- AREA IN SCOPE OF WORK
- AREA NOT IN SCOPE OF WORK



Project Title:

PARTIAL ROOF REPLACEMENT AT:

JOHN F. KENNEDY HIGH SCHOOL

422 HIGHLAND AVENUE
WATERBURY, CONNECTICUT 06708

SILVER PETRUCELLI + ASSOCIATES

3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	-	-	

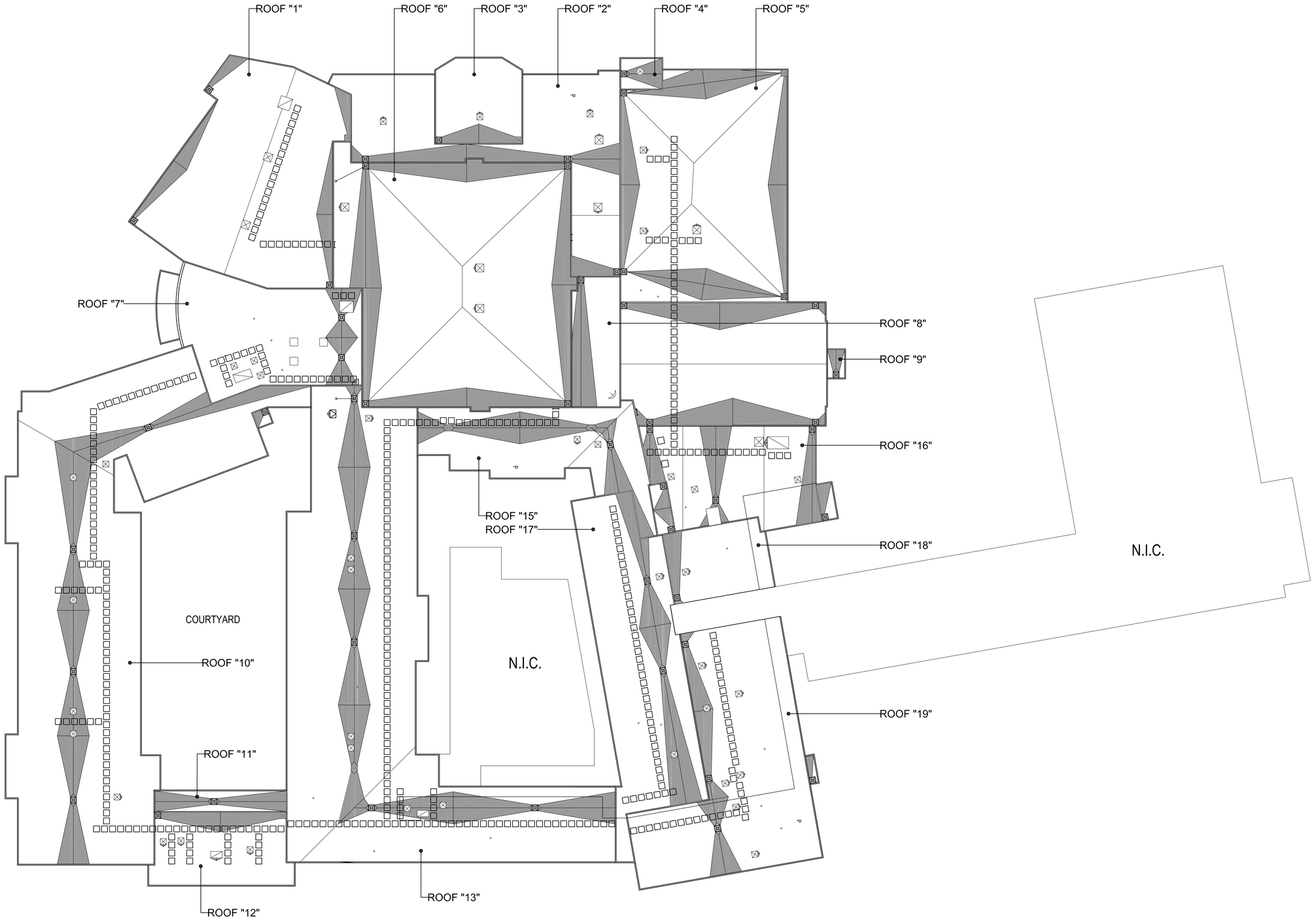
Drawing Title:

CODE INFORMATION

STATE PROJECT 151-0307 RR

Date: 03/27/2023
Scale: NONE
Drawn By: K.LINSLEY
Project Number: 22.059

Drawing Number: C1



1 OVERALL ROOF PLAN
1"=20'-0"

NORTH
PLAN NORTH

SYMBOL LEGEND

X / XX	-	PLAN SECTION DETAIL OR ELEVATION- SHEET NUMBER
SL	-	INDICATES SLOPE DIRECTION OF TAPERED INSULATION AT ¼" PER FOOT
SL	-	TAPERED INSULATION CRICKET SLOPED @ ¼" PER FOOT
@X / X	-	INDICATES SLOPE DIRECTION & INDICATES EXISTING ROOF PITCH.
NIC.	-	NOT IN CONTRACT SCOPE
	-	WALKWAY PADS. SEE CONSTRUCTION NOTE #2
ERD.	-	EXISTING ROOF DRAIN TO BE REMOVED. SEE DEMOLITION NOTES.
NRD.	-	NEW ROOF DRAIN TO BE INSTALLED. SEE DETAIL A/A4
OSC.	-	EMERGENCY OVERFLOW SCUPPER. SEE DETAIL B/A4
DL.	-	NEW HORIZONTAL DRAIN PIPING. SEE CONSTRUCTION NOTE #3
VS.	-	EXISTING VENT STACK. SEE DETAIL E/A4
FU.	-	EXISTING FAN UNIT. SEE DETAIL G/A4
MU.	-	EXISTING MECHANICAL UNIT. SEE DETAIL D/A4
RTU.	-	EXISTING ROOF TOP MECHANICAL UNIT. SEE DETAIL H/A4
SK.	-	SKYLIGHT. SEE DETAIL K/A4
RD.	-	ROOF DIVIDER. SEE DETAIL R/A4
ED.	-	EXISTING DOOR. SEE DETAIL Q/A4
ML.	-	METAL LADDER. SEE DETAIL N/A4
GL.	-	EXISTING GAS LINE. SEE CONSTRUCTION NOTE #4
EC.	-	EXISTING ELECTRICAL CONDUIT. SEE CONSTRUCTION NOTE #5
RH.	-	ROOF HATCH. SEE DETAIL S/A4

GENERAL NOTES

1. ALL FLAT ROOFS TO RECEIVE ¼" PER FOOT TAPERED RIGID INSULATION MINIMUM UNLESS OTHERWISE NOTED.
2. FIELD VERIFY ALL DIMENSIONS & PERFORM TEST CUTS AT EACH ROOF PRIOR TO THE BID.
3. ALL MATERIALS ARE NEW UNLESS OTHERWISE NOTED "EXISTING".
4. ALL WOOD BLOCKING, PLYWOOD & NAILERS TO BE PRESSURE TREATED. (P.T.)
5. ALL WOOD BLOCKING INDICATED IN DETAILS ARE TO BE ANCHORED TO THE EXISTING STRUCTURE.
6. ALL MEMBRANE FLASHING INDICATED IS TO EXTEND A MINIMUM OF 8", (VERTICAL OR HORIZONTAL)
7. CONTRACTOR IS TO SURVEY THE EXISTING ROOF DECKS W/A LEVEL (AFTER DEMOLITION) TO VERIFY THE SLOPES INDICATED ON PLAN ARE ACCURATE. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY ADDITIONAL ROOFING OPERATIONS.
8. CONTRACTOR IS TO INSPECT THE UNDERSIDE OF ALL ROOF DECKS PRIOR TO ROOFING OPERATIONS TO ENSURE THAT NO INTERIOR MATERIALS, EQUIPMENT, FINISHES OR OBJECTS WILL BE PIERCED OR DAMAGED.
9. CONTRACTOR ASSUMES ALL RESPONSIBILITY DURING PROJECT & WILL REPLACE ANY & ALL DAMAGED EQUIPMENT W/NO ADDITIONAL COST TO OWNER.
10. SITE AREAS DISTURBED SHALL BE CLEANED & RE-LEVELED. W/LAWN AREAS MAGNETICALLY RAKED TO REMOVE ANY METAL DEBRIS & RE-SEEDED AS REQUIRED TO MATCH ADJACENT CONDITIONS.
11. CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR CLEAN UP OF ROOFING MATERIALS & DEBRIS THAT PENETRATES THE INTERIOR ENVELOPE OF THE BUILDING W/NO ADDITIONAL COST TO THE OWNER.
12. SNAKE/CLEAN OUT ALL EXISTING VERTICAL & HORIZONTAL LEADERS OUT TO NEAREST MANHOLE OUTSIDE OF BUILDING.
13. ALL CRICKETS ARE TO BE SLOPED @ A MINIMUM OF ¼" PER FOOT & COORDINATE CRICKETS AROUND EXIST. HVAC UNITS AS REQUIRED TO AVOID PONDING.
14. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL & RE-INSTALLATION OF ALL HVAC UNITS INCLUDING ANY ELECTRICAL OR MECHANICAL CONNECTIONS. THIS MAY INCLUDE THE EXTENSION OF EXISTING ELECTRICAL & DUCTWORK SYSTEMS TO ACCOMMODATE NEW MECHANICAL UNIT CURBING & NEW ROOFING SYSTEM.
15. SNAKE/CLEAN OUT ALL EXISTING VENT STACKS BEFORE THE INSTALLATION OF METAL SLEEVE.
16. ALL DRAIN PIPING IS INSULATED ABOVE THE CEILINGS. THE EXACT ROUTE WILL BE DETERMINED IN THE FIELD. MAKE MINOR ADJUSTMENT IN THE ROUTE AT NO ADDITIONAL COST TO OWNER.
17. NEW ROOF INSULATION TO BE A MINIMUM OF R-30 AT ALL NEW ROOF DRAINS AND/OR THE LOW POINTS OF THE ROOF AREAS.
18. ALL ANTENNAE, CONDUITS & ANY OTHER OBJECTS TO REMAIN AFFECTED BY SCOPE OF WORK, TO BE REMOVED & REINSTALLED.

DEMOLITION NOTES (X)

1. REMOVE EXISTING ROOFING SYSTEM.
2. REMOVE ALL PERIMETER METAL FLASHING WITHIN SCOPE OF WORK.
3. REMOVE EXISTING ROOF DRAINS & SUMP.

CONSTRUCTION NOTES (X)

1. CONTRACTOR TO PROVIDE A SPECIFIED QUANTITY OF EXISTING DECK REPAIR & REPLACEMENT. SEE PROJECT MANUAL.
2. WALKWAY PADS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATION. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION. COORDINATE & FINALIZE EXACT ROUTE W/ OWNER & ARCHITECT.
3. HORIZONTAL ROOF LEADER (MATCH DIAMETER OF EXIST.) ABOVE CEILING SLOPED @ 1/8"/FT MIN. TIE VERTICAL LEADERS INTO EXIST. PIPING AS REQ'D, SEAL ALL PENETRATIONS THROUGH WALLS W/FIRE PUTTY AS REQ'D, BY CODE. PATCH & REPAIR ALL AREAS DAMAGED BY INSTALLATION OF NEW PIPING.
4. EXISTING GAS PIPING TO BE DISCONNECTED & PURGED. RAISE EXISTING GAS PIPING AS REQUIRED TO ACCOMMODATE NEW ROOFING INSULATION HEIGHTS. PROVIDE NEW PIPING EXTENSIONS, JOINTS, FITTINGS & RECONNECT TO EXISTING GAS MAIN. INSTALL ALL EXIST. & NEW GAS PIPING ON NEW PIPE CURBS 24" O.C. PRIME & PAINT ALL EXISTING & NEW GAS PIPING. SEE PROJECT MANUAL.
5. EXISTING ELECTRICAL CONDUIT TO BE DISCONNECTED & RAISED TO ACCOMMODATE NEW ROOF INSULATION HEIGHTS. REMOVE WIRE/CONDUIT & DISPOSE OF. INSTALL NEW CONDUIT & WIRING IN EXIST LOCATIONS & REPLACE ALL EXISTING JUNCTION BOXES TO MATCH EXISTING. SEE PROJECT MANUAL.

ROOF AREAS

ROOF "1"	830	SF.	ROOF "10"	18,843	SF.
ROOF "2"	5,948	SF.	ROOF "11"	735	SF.
ROOF "3"	1,840	SF.	ROOF "12"	2,458	SF.
ROOF "4"	328	SF.	ROOF "13"	18,465	SF.
ROOF "5"	19,308	SF.	ROOF "15"	4,162	SF.
ROOF "6"	13,822	SF.	ROOF "16"	4,151	SF.
ROOF "7"	4,809	SF.	ROOF "17"	6,216	SF.
ROOF "8"	1,918	SF.	ROOF "18"	1,809	SF.
ROOF "9"	135	SF.	ROOF "19"	8,423	SF.

TOTAL ROOF AREAS: 125,000 SF.
THIS AREA IS APPROXIMATE- V.I.F.
IECC CODE REQUIREMENT R-VALUE MIN. R-30
CONNECTICUT ZONE 2B
CBSC REQUIREMENT : R-30 -U.0333

ROOF ASSEMBLY

OUTSIDE AIR	0.17
ROOF MEMBRANE	0.33
COVERBOARD	2.20
5" POLYISO INSUL.	29.7
EXISTING DECK	1.23
INSIDE AIR	0.61
R-VALUE TOTAL	34.24

CODE INFORMATION

USE GROUP : B
CONSTRUCTION CLASS: 2B
RISK CATEGORY #3
ULTIMATE DESIGN WIND SPEED: 130 MPH
NOMINAL DESIGN WIND SPEED: 101 MPH

FACTORY MUTUAL ENGINEERING & RESEARCH CORPORATION (FM): ROOF ASSEMBLY CLASSIFICATION OF NON-COMBUSTIBLE CONSTRUCTION, WIND UPLIFT REQUIREMENT OF I-60 FOR FIELD, I-75 FOR PERIMETER AND I-110 FOR CORNERS, IN ACCORDANCE WITH FM PROPERTY LOSS PREVENTION DATA SHEETS 1-28.

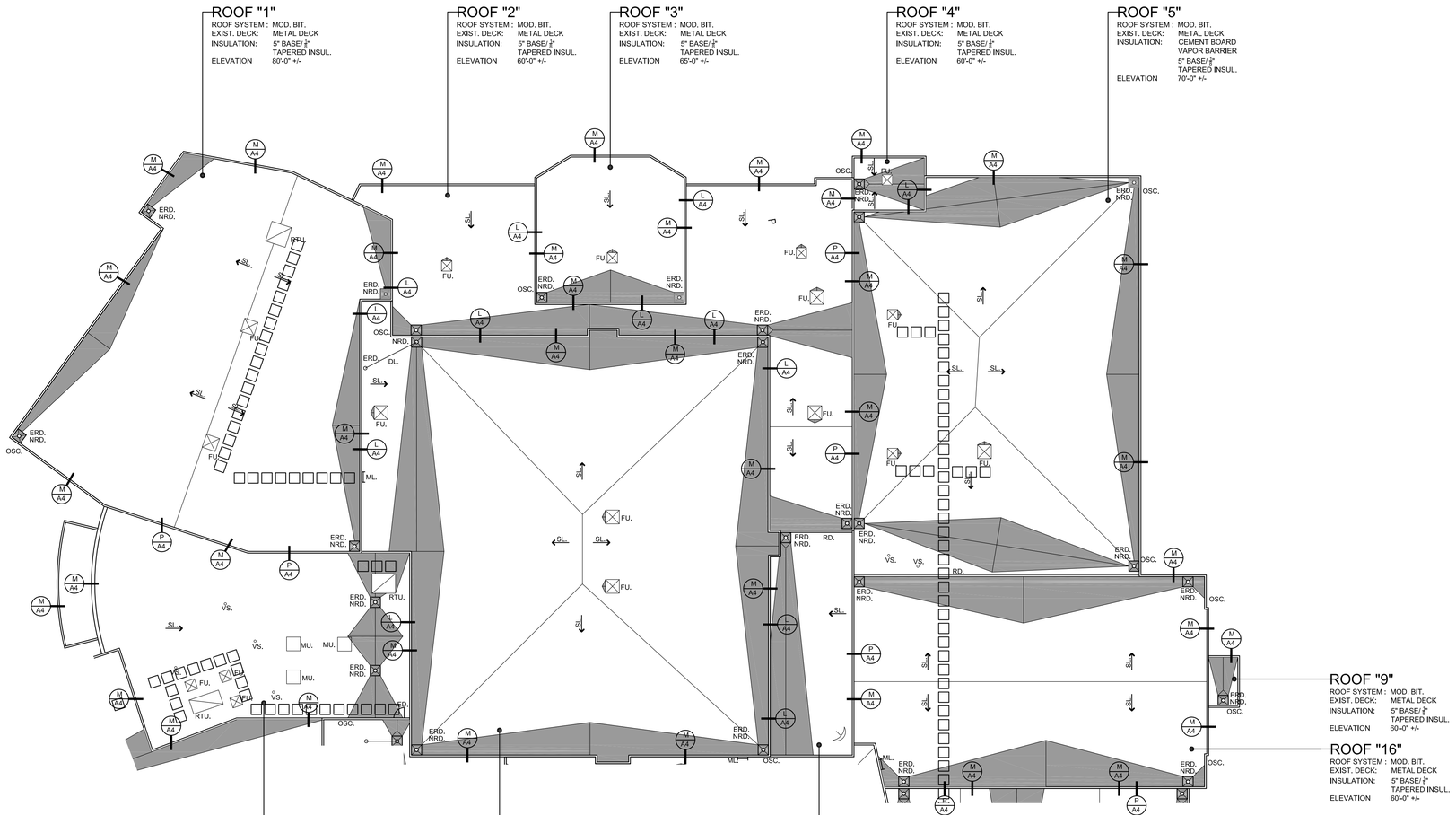
Project Title:
PARTIAL ROOF REPLACEMENT AT:
JOHN F. KENNEDY HIGH SCHOOL
422 HIGHLAND AVENUE
WATERBURY, CONNECTICUT 06708

SILVER PETRUCELLI + ASSOCIATES
3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	-	-	

Drawing Title:
OVERALL ROOF PLAN
STATE PROJECT 151-0307 RR

Date: 03/27/2023
Scale: 1"=20'-0"
Drawn By: K.LINSLEY
Project Number: 22.059
Drawing Number: A1



2 ROOF PLAN PART "2"
1/16"=1'-0"

NORTH
PLAN NORTH

SYMBOL LEGEND

- X/XX - PLAN SECTION DETAIL OR ELEVATION- SHEET NUMBER
- SL. - INDICATES SLOPE DIRECTION OF TAPERED INSULATION AT 1/4" PER FOOT
- SL. - TAPERED INSULATION CRICKET SLOPED @ 1/4" PER FOOT
- @X - INDICATES SLOPE DIRECTION & INDICATES EXISTING ROOF PITCH.
- NIC. - NOT IN CONTRACT SCOPE
- WALKWAY PADS. SEE CONSTRUCTION NOTE #2
- ERD. - EXISTING ROOF DRAIN TO BE REMOVED. SEE DEMOLITION NOTES.
- NRD. - NEW ROOF DRAIN TO BE INSTALLED. SEE DETAIL A/A4
- OSC. - EMERGENCY OVERFLOW SCUPPER. SEE DETAIL B/A4
- DL. - NEW HORIZONTAL DRAIN PIPING. SEE CONSTRUCTION NOTE #3
- VS. - EXISTING VENT STACK. SEE DETAIL E/A4
- FU. - EXISTING FAN UNIT. SEE DETAIL G/A4
- MU. - EXISTING MECHANICAL UNIT. SEE DETAIL D/A4
- RTU. - EXISTING ROOF TOP MECHANICAL UNIT. SEE DETAIL H/A4
- SK. - SKYLIGHT. SEE DETAIL K/A4
- RD. - ROOF DIVIDER. SEE DETAIL R/A4
- ED. - EXISTING DOOR. SEE DETAIL Q/A4
- ML. - METAL LADDER. SEE DETAIL N/A4
- GL. - EXISTING GAS LINE. SEE CONSTRUCTION NOTE #4
- EC. - EXISTING ELECTRICAL CONDUIT. SEE CONSTRUCTION NOTE #5
- RH. - ROOF HATCH. SEE DETAIL S/A4

GENERAL NOTES

1. ALL FLAT ROOFS TO RECEIVE 1/4" PER FOOT TAPERED RIGID INSULATION MINIMUM UNLESS OTHERWISE NOTED.
2. FIELD VERIFY ALL DIMENSIONS & PERFORM TEST CUTS AT EACH ROOF PRIOR TO THE BID.
3. ALL MATERIALS ARE NEW UNLESS OTHERWISE NOTED "EXISTING".
4. ALL WOOD BLOCKING, PLYWOOD & NAILERS TO BE PRESSURE TREATED. (P.T.)
5. ALL WOOD BLOCKING INDICATED IN DETAILS ARE TO BE ANCHORED TO THE EXISTING STRUCTURE.
6. ALL MEMBRANE FLASHING INDICATED IS TO EXTEND A MINIMUM OF 8", (VERTICAL OR HORIZONTAL)
7. CONTRACTOR IS TO SURVEY THE EXISTING ROOF DECKS W/A LEVEL (AFTER DEMOLITION) TO VERIFY THE SLOPES INDICATED ON PLAN ARE ACCURATE. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY ADDITIONAL ROOFING OPERATIONS.
8. CONTRACTOR IS TO INSPECT THE UNDERSIDE OF ALL ROOF DECKS PRIOR TO ROOFING OPERATIONS TO ENSURE THAT NO INTERIOR MATERIALS, EQUIPMENT, FINISHES OR OBJECTS WILL BE PIERCED OR DAMAGED.
9. CONTRACTOR ASSUMES ALL RESPONSIBILITY DURING PROJECT & WILL REPLACE ANY & ALL DAMAGED EQUIPMENT W/NO ADDITIONAL COST TO OWNER.
10. SITE AREAS DISTURBED SHALL BE CLEANED & RE-LEVELED. W/LAWN AREAS MAGNETICALLY RAKED TO REMOVE ANY METAL DEBRIS & RE-SEEDED AS REQUIRED TO MATCH ADJACENT CONDITIONS.
11. CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR CLEAN UP OF ROOFING MATERIALS & DEBRIS THAT PENETRATES THE INTERIOR ENVELOPE OF THE BUILDING W/NO ADDITIONAL COST TO THE OWNER.
12. SNAKE/CLEAN OUT ALL EXISTING VERTICAL & HORIZONTAL LEADERS OUT TO NEAREST MANHOLE OUTSIDE OF BUILDING.
13. ALL CRICKETS ARE TO BE SLOPED @ A MINIMUM OF 1/4" PER FOOT & COORDINATE CRICKETS AROUND EXIST. HVAC UNITS AS REQUIRED TO AVOID PONDING.
14. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL & RE-INSTALLATION OF ALL HVAC UNITS INCLUDING ANY ELECTRICAL OR MECHANICAL CONNECTIONS. THIS MAY INCLUDE THE EXTENSION OF EXISTING ELECTRICAL & DUCTWORK SYSTEMS TO ACCOMMODATE NEW MECHANICAL UNIT CURBING & NEW ROOFING SYSTEM.
15. SNAKE/CLEAN OUT ALL EXISTING VENT STACKS BEFORE THE INSTALLATION OF METAL SLEEVE.
16. ALL DRAIN PIPING IS INSULATED ABOVE THE CEILINGS. THE EXACT ROUTE WILL BE DETERMINED IN THE FIELD. MAKE MINOR ADJUSTMENT IN THE ROUTE AT NO ADDITIONAL COST TO OWNER.
17. NEW ROOF INSULATION TO BE A MINIMUM OF R-30 AT ALL NEW ROOF DRAINS AND/OR THE LOW POINTS OF THE ROOF AREAS.
18. ALL ANTENNAE, CONDUITS & ANY OTHER OBJECTS TO REMAIN AFFECTED BY SCOPE OF WORK, TO BE REMOVED & REINSTALLED.

DEMOLITION NOTES (X)

1. REMOVE EXISTING ROOFING SYSTEM.
2. REMOVE ALL PERIMETER METAL FLASHING WITHIN SCOPE OF WORK.
3. REMOVE EXISTING ROOF DRAINS & SUMP.

CONSTRUCTION NOTES (X)

1. CONTRACTOR TO PROVIDE A SPECIFIED QUANTITY OF EXISTING DECK REPAIR & REPLACEMENT. SEE PROJECT MANUAL.
2. WALKWAY PADS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATION. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION. COORDINATE & FINALIZE EXACT ROUTE W/ OWNER & ARCHITECT.
3. HORIZONTAL ROOF LEADER (MATCH DIAMETER OF EXIST.) ABOVE CEILING SLOPED @ 1/8"/FT MIN, TIE VERTICAL LEADERS INTO EXIST. PIPING AS REQ'D. SEAL ALL PENETRATIONS THROUGH WALLS W/FIRE PUTTY AS REQ'D, BY CODE. PATCH & REPAIR ALL AREAS DAMAGED BY INSTALLATION OF NEW PIPING.
4. EXISTING GAS PIPING TO BE DISCONNECTED & PURGED. RAISE EXISTING GAS PIPING AS REQUIRED TO ACCOMMODATE NEW ROOFING INSULATION HEIGHTS. PROVIDE NEW PIPING EXTENSIONS, JOINTS, FITTINGS & RECONNECT TO EXISTING GAS MAIN. INSTALL ALL EXIST. & NEW GAS PIPING ON NEW PIPE CURBS 24" O.C. PRIME & PAINT ALL EXISTING & NEW GAS PIPING. SEE PROJECT MANUAL.
5. EXISTING ELECTRICAL CONDUIT TO BE DISCONNECTED & RAISED TO ACCOMMODATE NEW ROOF INSULATION HEIGHTS. REMOVE WIRE/CONDUIT & DISPOSE OF. INSTALL NEW CONDUIT & WIRING IN EXIST LOCATIONS & REPLACE ALL EXISTING JUNCTION BOXES TO MATCH EXISTING. SEE PROJECT MANUAL.

ROOF AREAS

ROOF "1"	830	SF.	ROOF "10"	18,843	SF.
ROOF "2"	5,948	SF.	ROOF "11"	735	SF.
ROOF "3"	1,840	SF.	ROOF "12"	2,458	SF.
ROOF "4"	328	SF.	ROOF "13"	18,465	SF.
ROOF "5"	19,308	SF.	ROOF "15"	4,162	SF.
ROOF "6"	13,822	SF.	ROOF "16"	4,151	SF.
ROOF "7"	4,809	SF.	ROOF "17"	6,216	SF.
ROOF "8"	1,918	SF.	ROOF "18"	1,809	SF.
ROOF "9"	135	SF.	ROOF "19"	8,423	SF.

TOTAL ROOF AREAS: 125,000 SF.
THIS AREA IS APPROXIMATE- V.I.F.
IECC CODE REQUIREMENT R-VALUE MIN. R-30
CONNECTICUT ZONE 2B
CBSC REQUIREMENT : R-30 -U,0333

ROOF ASSEMBLY

OUTSIDE AIR	0.17
ROOF MEMBRANE	0.33
COVERBOARD	2.20
5" POLYISO INSUL.	29.7
EXISTING DECK	1.23
INSIDE AIR	0.61
R-VALUE TOTAL	34.24

CODE INFORMATION

USE GROUP : B
CONSTRUCTION CLASS; 2B
RISK CATEGORY #3
ULTIMATE DESIGN WIND SPEED: 130 MPH
NOMINAL DESIGN WIND SPEED: 101 MPH

FACTORY MUTUAL ENGINEERING & RESEARCH CORPORATION (FM): ROOF ASSEMBLY CLASSIFICATION OF NON-COMBUSTIBLE CONSTRUCTION, WIND UPLIFT REQUIREMENT OF I-60 FOR FIELD, I-75 FOR PERIMETER AND I-110 FOR CORNERS, IN ACCORDANCE WITH FM PROPERTY LOSS PREVENTION DATA SHEETS 1-28.

Project Title:
PARTIAL ROOF REPLACEMENT AT:
JOHN F. KENNEDY HIGH SCHOOL
422 HIGHLAND AVENUE
WATERBURY, CONNECTICUT 06708

SILVER PETRUCELLI + ASSOCIATES
3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	-	-	

Drawing Title:
ROOF PLAN PART "1"
STATE PROJECT 151-0307 RR

Date: 03/27/2023
Scale: 1/16"=1'-0"
Drawn By: K.LINSLEY
Project Number: 22.059

Drawing Number: A2



3 ROOF PLAN PART "2"
1/16"=1'-0"

NORTH
PLAN NORTH

SYMBOL LEGEND

- X / XX - PLAN SECTION DETAIL OR ELEVATION- SHEET NUMBER
- SL - INDICATES SLOPE DIRECTION OF TAPERED INSULATION AT 1/4" PER FOOT
- SL @X - TAPERED INSULATION CRICKET SLOPED @ 1/4" PER FOOT
- @X - INDICATES SLOPE DIRECTION & INDICATES EXISTING ROOF PITCH.
- NIC. - NOT IN CONTRACT SCOPE
- WALKWAY PADS. SEE CONSTRUCTION NOTE #2
- ERD. - EXISTING ROOF DRAIN TO BE REMOVED. SEE DEMOLITION NOTES.
- NRD. - NEW ROOF DRAIN TO BE INSTALLED. SEE DETAIL A/A4
- OSC. - EMERGENCY OVERFLOW SCUPPER. SEE DETAIL B/A4
- DL. - NEW HORIZONTAL DRAIN PIPING. SEE CONSTRUCTION NOTE #3
- VS. - EXISTING VENT STACK. SEE DETAIL E/A4
- FU. - EXISTING FAN UNIT. SEE DETAIL G/A4
- MU. - EXISTING MECHANICAL UNIT. SEE DETAIL D/A4
- RTU. - EXISTING ROOF TOP MECHANICAL UNIT. SEE DETAIL H/A4
- SK. - SKYLIGHT. SEE DETAIL K/A4
- RD. - ROOF DIVIDER. SEE DETAIL R/A4
- ED. - EXISTING DOOR. SEE DETAIL Q/A4
- ML. - METAL LADDER. SEE DETAIL N/A4
- GL. - EXISTING GAS LINE. SEE CONSTRUCTION NOTE #4
- EC. - EXISTING ELECTRICAL CONDUIT. SEE CONSTRUCTION NOTE #5
- RH. - ROOF HATCH. SEE DETAIL S/A4

GENERAL NOTES

1. ALL FLAT ROOFS TO RECEIVE 1/4" PER FOOT TAPERED RIGID INSULATION MINIMUM UNLESS OTHERWISE NOTED.
2. FIELD VERIFY ALL DIMENSIONS & PERFORM TEST CUTS AT EACH ROOF PRIOR TO THE BID.
3. ALL MATERIALS ARE NEW UNLESS OTHERWISE NOTED "EXISTING".
4. ALL WOOD BLOCKING, PLYWOOD & NAILERS TO BE PRESSURE TREATED. (P.T.)
5. ALL WOOD BLOCKING INDICATED IN DETAILS ARE TO BE ANCHORED TO THE EXISTING STRUCTURE.
6. ALL MEMBRANE FLASHING INDICATED IS TO EXTEND A MINIMUM OF 8", (VERTICAL OR HORIZONTAL)
7. CONTRACTOR IS TO SURVEY THE EXISTING ROOF DECKS W/A LEVEL (AFTER DEMOLITION) TO VERIFY THE SLOPES INDICATED ON PLAN ARE ACCURATE. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY ADDITIONAL ROOFING OPERATIONS.
8. CONTRACTOR IS TO INSPECT THE UNDERSIDE OF ALL ROOF DECKS PRIOR TO ROOFING OPERATIONS TO ENSURE THAT NO INTERIOR MATERIALS, EQUIPMENT, FINISHES OR OBJECTS WILL BE PIERCED OR DAMAGED.
9. CONTRACTOR ASSUMES ALL RESPONSIBILITY DURING PROJECT & WILL REPLACE ANY & ALL DAMAGED EQUIPMENT W/NO ADDITIONAL COST TO OWNER.
10. SITE AREAS DISTURBED SHALL BE CLEANED & RE-LEVELED. W/LAWN AREAS MAGNETICALLY RAKED TO REMOVE ANY METAL DEBRIS & RE-SEEDED AS REQUIRED TO MATCH ADJACENT CONDITIONS.
11. CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR CLEAN UP OF ROOFING MATERIALS & DEBRIS THAT PENETRATES THE INTERIOR ENVELOPE OF THE BUILDING W/NO ADDITIONAL COST TO THE OWNER.
12. SNAKE/CLEAN OUT ALL EXISTING VERTICAL & HORIZONTAL LEADERS OUT TO NEAREST MANHOLE OUTSIDE OF BUILDING.
13. ALL CRICKETS ARE TO BE SLOPED @ A MINIMUM OF 1/4" PER FOOT & COORDINATE CRICKETS AROUND EXIST. HVAC UNITS AS REQUIRED TO AVOID PONDING.
14. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL & RE-INSTALLATION OF ALL HVAC UNITS INCLUDING ANY ELECTRICAL OR MECHANICAL CONNECTIONS. THIS MAY INCLUDE THE EXTENSION OF EXISTING ELECTRICAL & DUCTWORK SYSTEMS TO ACCOMMODATE NEW MECHANICAL UNIT CURBING & NEW ROOFING SYSTEM.
15. SNAKE/CLEAN OUT ALL EXISTING VENT STACKS BEFORE THE INSTALLATION OF METAL SLEEVE.
16. ALL DRAIN PIPING IS INSULATED ABOVE THE CEILINGS. THE EXACT ROUTE WILL BE DETERMINED IN THE FIELD, MAKE MINOR ADJUSTMENT IN THE ROUTE AT NO ADDITIONAL COST TO OWNER.
17. NEW ROOF INSULATION TO BE A MINIMUM OF R-30 AT ALL NEW ROOF DRAINS AND/OR THE LOW POINTS OF THE ROOF AREAS.
18. ALL ANTENNAE, CONDUITS & ANY OTHER OBJECTS TO REMAIN AFFECTED BY SCOPE OF WORK, TO BE REMOVED & REINSTALLED.

DEMOLITION NOTES (X)

1. REMOVE EXISTING ROOFING SYSTEM.
2. REMOVE ALL PERIMETER METAL FLASHING WITHIN SCOPE OF WORK.
3. REMOVE EXISTING ROOF DRAINS & SUMP.

CONSTRUCTION NOTES (X)

1. CONTRACTOR TO PROVIDE A SPECIFIED QUANTITY OF EXISTING DECK REPAIR & REPLACEMENT. SEE PROJECT MANUAL.
2. WALKWAY PADS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATION. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION. COORDINATE & FINALIZE EXACT ROUTE W/ OWNER & ARCHITECT.
3. HORIZONTAL ROOF LEADER (MATCH DIAMETER OF EXIST.) ABOVE CEILING SLOPED @ 1/8"/FT MIN, TIE VERTICAL LEADERS INTO EXIST. PIPING AS REQ'D. SEAL ALL PENETRATIONS THROUGH WALLS W/FIRE PUTTY AS REQ'D. BY CODE. PATCH & REPAIR ALL AREAS DAMAGED BY INSTALLATION OF NEW PIPING.
4. EXISTING GAS PIPING TO BE DISCONNECTED & PURGED. RAISE EXISTING GAS PIPING AS REQUIRED TO ACCOMMODATE NEW ROOFING INSULATION HEIGHTS. PROVIDE NEW PIPING EXTENSIONS, JOINTS, FITTINGS & RECONNECT TO EXISTING GAS MAIN. INSTALL ALL EXIST. & NEW GAS PIPING ON NEW PIPE CURBS 24" O.C. PRIME & PAINT ALL EXISTING & NEW GAS PIPING. SEE PROJECT MANUAL.
5. EXISTING ELECTRICAL CONDUIT TO BE DISCONNECTED & RAISED TO ACCOMMODATE NEW ROOF INSULATION HEIGHTS. REMOVE WIRE/CONDUIT & DISPOSE OF, INSTALL NEW CONDUIT & WIRING IN EXIST LOCATIONS & REPLACE ALL EXISTING JUNCTION BOXES TO MATCH EXISTING. SEE PROJECT MANUAL.

ROOF AREAS

ROOF "1"	830	SF.	ROOF "10"	18,843	SF.
ROOF "2"	5,948	SF.	ROOF "11"	735	SF.
ROOF "3"	1,840	SF.	ROOF "12"	2,458	SF.
ROOF "4"	328	SF.	ROOF "13"	18,465	SF.
ROOF "5"	19,308	SF.	ROOF "15"	4,162	SF.
ROOF "6"	13,822	SF.	ROOF "16"	4,151	SF.
ROOF "7"	4,809	SF.	ROOF "17"	6,216	SF.
ROOF "8"	1,918	SF.	ROOF "18"	1,809	SF.
ROOF "9"	135	SF.	ROOF "19"	8,423	SF.

TOTAL ROOF AREAS: 125,000 SF.
THIS AREA IS APPROXIMATE- V.I.F.
IECC CODE REQUIREMENT R-VALUE MIN. R-30
CONNECTICUT ZONE 2B
CBSC REQUIREMENT : R-30 -U.0333

ROOF ASSEMBLY

OUTSIDE AIR	0.17
ROOF MEMBRANE	0.33
COVERBOARD	2.20
5" POLYISO INSUL.	29.7
EXISTING DECK	1.23
INSIDE AIR	0.61
R-VALUE TOTAL	34.24

CODE INFORMATION

USE GROUP : B
CONSTRUCTION CLASS: 2B
RISK CATEGORY #3
ULTIMATE DESIGN WIND SPEED: 130 MPH
NOMINAL DESIGN WIND SPEED: 101 MPH

FACTORY MUTUAL ENGINEERING & RESEARCH CORPORATION (FM): ROOF ASSEMBLY CLASSIFICATION OF NON-COMBUSTIBLE CONSTRUCTION. WIND UPLIFT REQUIREMENT OF I-60 FOR FIELD, I-75 FOR PERIMETER AND I-110 FOR CORNERS, IN ACCORDANCE WITH FM PROPERTY LOSS PREVENTION DATA SHEETS 1-28.

Project Title:
PARTIAL ROOF REPLACEMENT AT:
JOHN F. KENNEDY HIGH SCHOOL
422 HIGHLAND AVENUE
WATERBURY, CONNECTICUT 06708

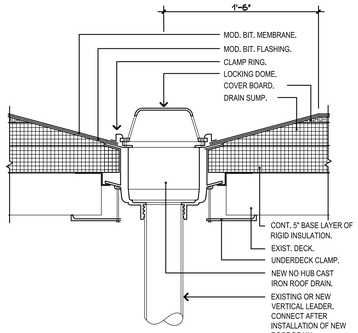
SILVER PETRUCELLI + ASSOCIATES
3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	-	-	

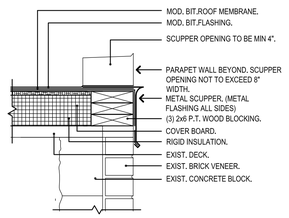
Drawing Title:
ROOF PLAN PART "2"
STATE PROJECT 151-0307 RR

Date: 03/27/2023
Scale: 1/16"=1'-0"
Drawn By: K.LINSLEY
Project Number: 22.059

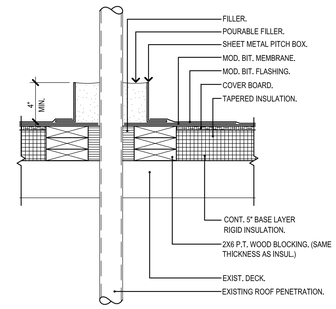
Drawing Number: A3



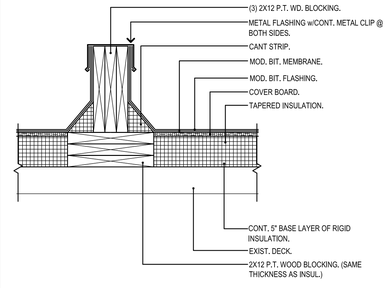
A ROOF DRAIN
1-1/2"=1'-0"



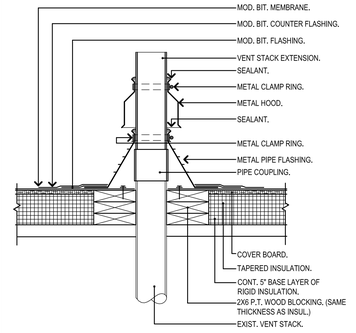
B EMERGENCY OVERFLOW SCUPPER
1-1/2"=1'-0"



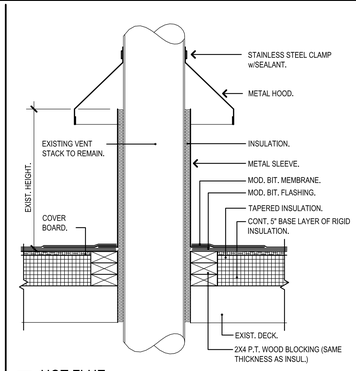
C PITCH BOX
1-1/2"=1'-0"



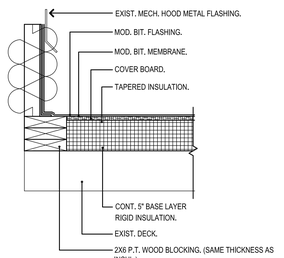
D MECHANICAL UNIT CURB
1-1/2"=1'-0"



E VENT STACK
1-1/2"=1'-0"

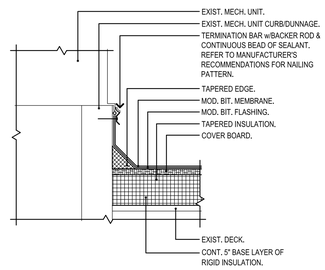


F HOT FLUE
1-1/2"=1'-0"

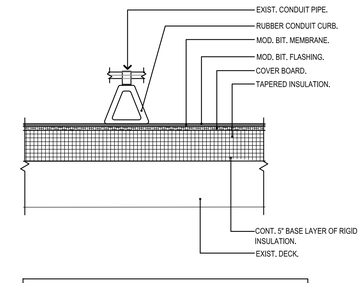


NOTE:
EXIST. MECHANICAL UNIT TO BE REMOVED & REINSTALLED AS REQUIRED FOR NEW CURB & ROOFING OPERATIONS. EXTEND ALL ELECTRICAL WIRING & DUCTWORK AS REQUIRED.

G ROOF EXHAUST FAN
1-1/2"=1'-0"

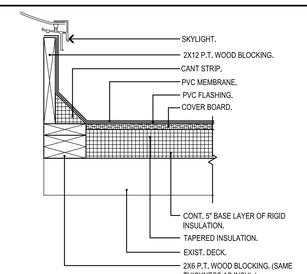


H ROOF TOP MECHANICAL UNIT
1-1/2"=1'-0"



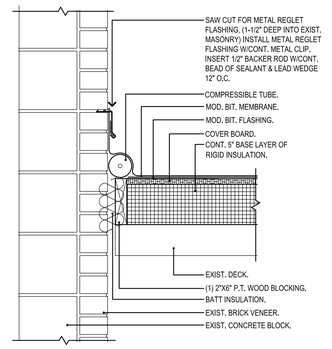
NOTE:
INSTALL NEW CONDUIT CURBS 3'-0" O.C. BENEATH ALL GAS PIPING & ELECTRICAL CONDUIT WHERE INDICATED.

J CONDUIT CURB
1-1/2"=1'-0"

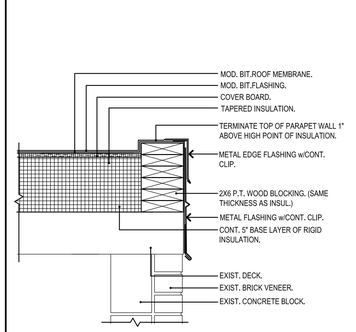


NOTE:
EXIST. SKYLIGHT TO BE REMOVED, PATCH & REPAIR INTERIOR FINISHES TO MATCH EXISTING. PROVIDE NEW CURB w/MIN. R-25 INSULATION & INSTALL NEW SKYLIGHT.

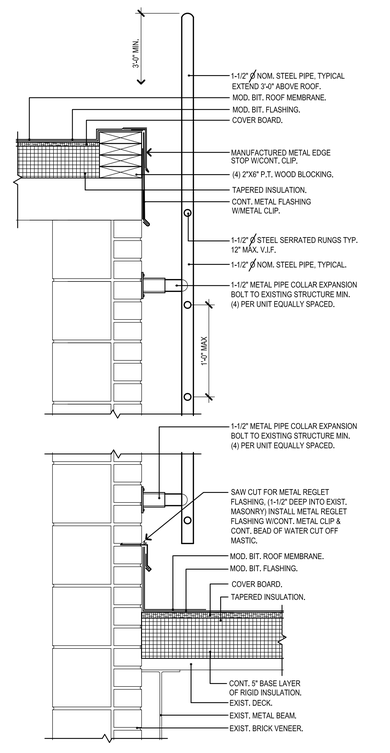
K SKYLIGHT
1-1/2"=1'-0"



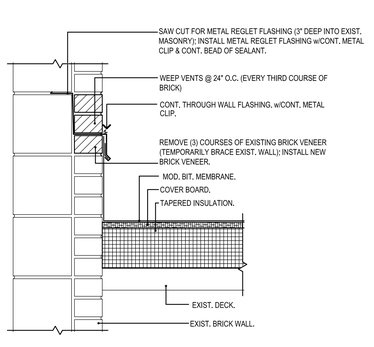
L REGLET
1-1/2"=1'-0"



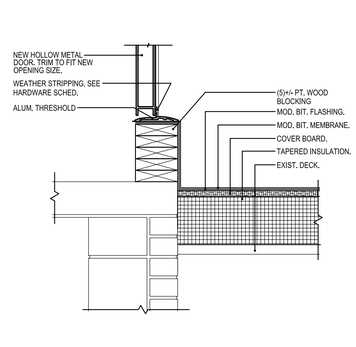
M ROOF EDGE
1-1/2"=1'-0"



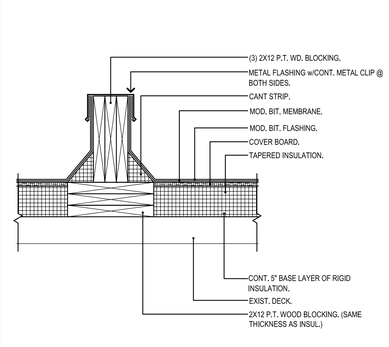
N METAL LADDER
1-1/2"=1'-0"



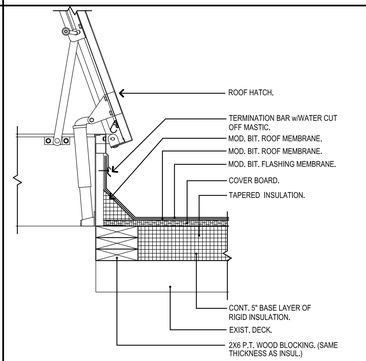
P NEW WEEP HOLES
1-1/2"=1'-0"



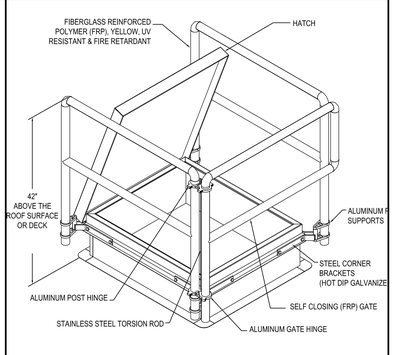
Q EXISTING DOOR
1-1/2"=1'-0"



R ROOF DIVIDER
1-1/2"=1'-0"



S ROOF HATCH
1-1/2"=1'-0"



T ROOF HATCH SAFTEY CAGE
1-1/2"=1'-0"

Project Title:

PARTIAL ROOF REPLACEMENT AT:

JOHN F. KENNEDY HIGH SCHOOL

422 HIGHLAND AVENUE
WATERBURY, CONNECTICUT 06708

SILVER PETRUCELLI + ASSOCIATES

3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	-	-	

Drawing Title:

ROOF DETAILS

STATE PROJECT 151-0307 RR

Date: 03/27/2023
Scale: 1-1/2"=1'-0"
Drawn By: K.LINSLEY
Project Number: 22.059

Drawing Number: A4

MAUREEN McCAULEY
ASSISTANT DIRECTOR OF PURCHASING



OFFICE OF THE DIRECTOR OF PURCHASING
THE CITY OF WATERBURY
CONNECTICUT

ADDENDUM #1

January 26, 2024

RFP 7930 Kennedy Elementary School Roof Replacement; Project 151-0307RR

All proposals of the above captioned project are hereby notified that the Contract Documents for the above referenced project are amended as noted in this Addendum No. 1. This Addendum shall be part of the Contract Documents for the above referenced project as provided in the Request for Proposal.

Receipt of this Addendum shall be acknowledged in writing on the form included in Attachment C of the RFP. Failure to do so may subject Proposer to disqualification.

The Contract Documents are hereby amended as follows:

General Information:

- The Contractor must obtain their own required building permits at no additional charge to the Owner.

Changes to the Drawings:

- DRAWING A2, ROOF PLAN PART 1, Detail Tag L/A4, revise all instances to read "P/A4".
- DRAWING A3, ROOF PLAN PART 2:
  - All instances, Detail Tags shown as A2, revise to read A4.
  - Detail Tag L/A2, revise all instances to read "P/A4".
- DRAWING A4,ROOF DETAILS, Detail "L-Reglet", has been deleted in its entirety.

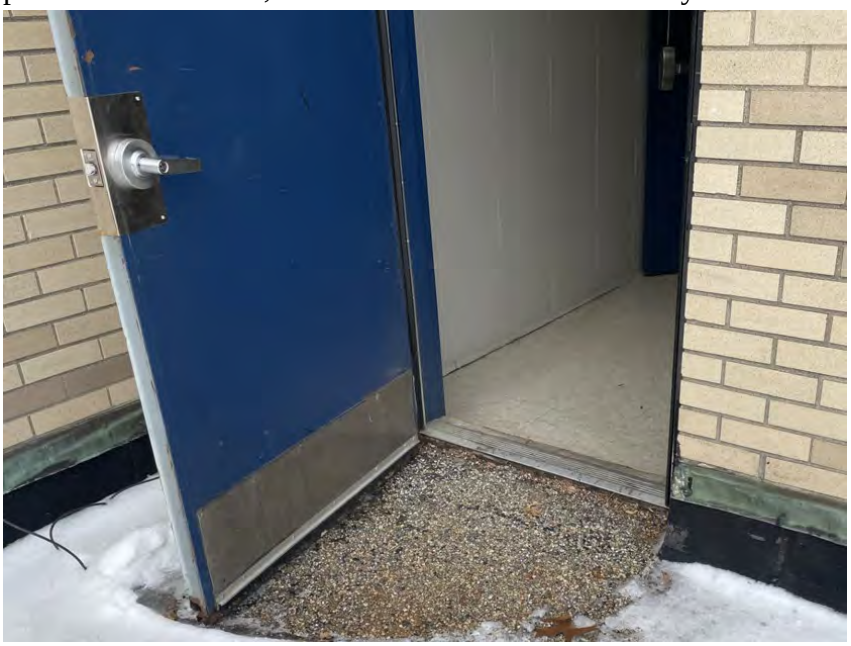
Please refer to the questions and answers below.

Question: Core cuts were not possible during prebid meeting due to ice buildup on roofs. Please provide assembly per roof area to determine the correct number of dumpsters needed for removal.
Answer: Core cut data is unavailable.

235 GRAND STREET • WATERBURY, CONNECTICUT 06702 • PHONE: (203) 574-6749 • FAX: (203) 597-3437

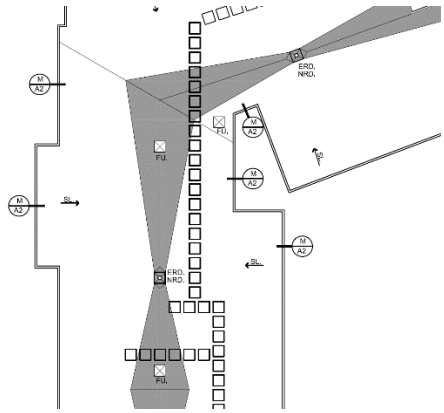
Question: There is a discrepancy between the Insurance Requirements listed in Attachment D versus the Sample Contract, which is correct?
Answer: Please see attached updated Attachment D, which is correct and supersedes any previously published insurance requirements.

Question: Roofing over roof 7 meets door sill. Without a core cut which was not possible at prebid due to the ice, we could not tell if this doorway will need to be adjusted.



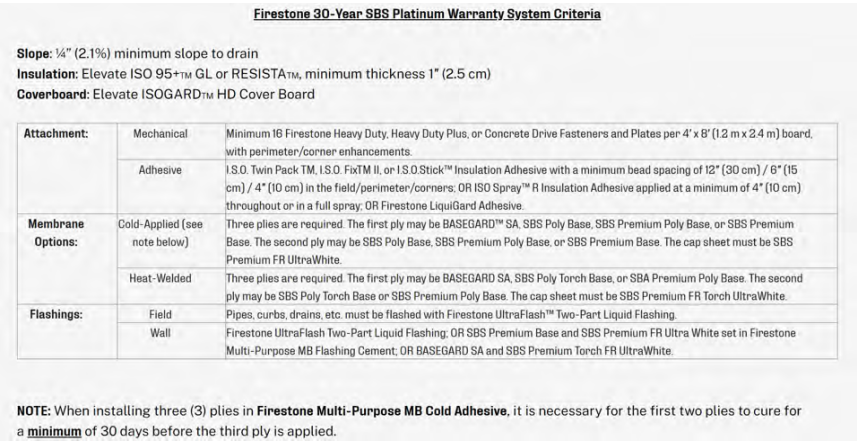
Answer: See detail Q/A4 for door modification detail.

Question: Plan A3 as shown below references details from plan A2 which do not exist. Please clarify.



Answer: All instances, Detail Tags shown as A2, revise to read A4.

Question: Membrane MFG require 2 base sheets and a cap to achieve a 30yr warranty. How should we price?



Firestone 30-Year SBS Platinum Warranty System Criteria

Slope: ¼" (2.1%) minimum slope to drain
Insulation: Elevate ISO 95+TM GL or RESISTATM, minimum thickness 1" (2.5 cm)
Coverboard: Elevate ISOGARDTM HD Cover Board

Attachment:	Mechanical	Minimum 16 Firestone Heavy Duty, Heavy Duty Plus, or Concrete Drive Fasteners and Plates per 4' x 8' (1.2 m x 2.4 m) board, with perimeter/corner enhancements.
	Adhesive	I.S.O. Twin Pack TM, I.S.O. FixTM II, or I.S.O.Stick™ Insulation Adhesive with a minimum bead spacing of 12" (30 cm) / 6" (15 cm) / 4" (10 cm) in the field/perimeter/corners; OR ISO Spray™ R Insulation Adhesive applied at a minimum of 4" (10 cm) throughout or in a full spray; OR Firestone LiquiGard Adhesive.
Membrane Options:	Cold-Applied (see note below)	Three plies are required. The first ply may be BASEGARD™ SA, SBS Poly Base, SBS Premium Poly Base, or SBS Premium Base. The second ply may be SBS Poly Base, SBS Premium Poly Base, or SBS Premium Base. The cap sheet must be SBS Premium FR UltraWhite.
	Heat-Welded	Three plies are required. The first ply may be BASEGARD SA, SBS Poly Torch Base, or SBA Premium Poly Base. The second ply may be SBS Poly Torch Base or SBS Premium Poly Base. The cap sheet must be SBS Premium FR Torch UltraWhite.
Flashings:	Field	Pipes, curbs, drains, etc. must be flashed with Firestone UltraFlash™ Two-Part Liquid Flashing.
	Wall	Firestone UltraFlash Two-Part Liquid Flashing; OR SBS Premium Base and SBS Premium FR Ultra White set in Firestone Multi-Purpose MB Flashing Cement; OR BASEGARD SA and SBS Premium Torch FR UltraWhite.

NOTE: When installing three (3) plies in **Firestone Multi-Purpose MB Cold Adhesive**, it is necessary for the first two plies to cure for a **minimum** of 30 days before the third ply is applied.

Answer: We require a 30 year warranty, the number of sheets is at the direction of the manufacturer.

NOTE: Each Proposal over $50,000.00 submitted shall be accompanied by a Proposal Security (a Certified Check or Bid Bond) in the amount of ten (10) percent of the Total Proposal Price.

END OF ADDENDUM 1

Thank you.

Maureen McCauley

Assistant Director of Purchasing – City of Waterbury

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Kennedy High School Roof Replacement
RFP# 7930
Project 151-0307RR

Attachment D
Insurance Requirements- Corrected 1/26/2024

Contractor/Vendor shall agree to maintain in force at all times during the contract the following minimum coverages and shall name the City of Waterbury and the Waterbury Board of Education as Additional Insured on a primary and non-contributory basis to all policies, except Workers Compensation. All policies should also include a Waiver of Subrogation. Insurance shall be written with Carriers approved in the State of Connecticut and with a minimum AM Best's rating of "A"VIII.

If any policy is written on a "Claims Made" basis, the policy must be continually renewed for a minimum of two (2) years from the completion date of this contract. If the policy is replaced and/or the retroactive date is changed, then the expiring policy must be endorsed to extend the reporting period for claims for the policy in effect during the contract for two (2) years from the completion date.

Original, completed Certificates of Insurance must be presented to the City of Waterbury and the Waterbury Board of Education prior to contract issuance. Contractor/Vendor agrees to provide replacement/renewal certificates at least 30 days prior to the expiration date of the policies. Should any of the above described policies be cancelled, limits reduced or coverage altered, 30 days written notice must be given to the City of Waterbury and the Waterbury Board of Education.

General Liability:	**$1,000,000 each Occurrence** **$2,000,000 General Aggregate** **$2,000,000 Products/ Completed Operations Aggregate**
Auto Liability:	**$1,000,000 Combined Single Limit each Accident** **Any Auto, All Owned and Hired Autos**
Workers Compensation:	**WC Statutory Limits** **Employer Liability (EL)** **$1,000,000 EL each Accident** **$1,000,000 EL Disease each Employee** **$1,000,000 EL Disease Policy Limits**
Excess/Umbrella Liability:	**$4,000,000 each Occurrence** **$4,000,000 Aggregate**

Wording for Additional Insured Endorsement and Waiver of Subrogation:
The City Waterbury and its Board of Education is listed as an Additional Insured on a primary and non-contributory basis on all policies except Workers Compensation. All policies shall include a Waiver of Subrogation.

MAUREEN McCAULEY
ASSISTANT DIRECTOR OF PURCHASING



OFFICE OF THE DIRECTOR OF PURCHASING
THE CITY OF WATERBURY
CONNECTICUT

ADDENDUM #2

January 31, 2024

RFP 7930 Kennedy High School Roof Replacement; Project 151-0307RR

All proposals of the above captioned project are hereby notified that the Contract Documents for the above referenced project are amended as noted in this Addendum No. 2. This Addendum shall be part of the Contract Documents for the above referenced project as provided in the Request for Proposal.

Receipt of this Addendum shall be acknowledged in writing on the form included in Attachment C of the RFP. Failure to do so may subject Proposer to disqualification.

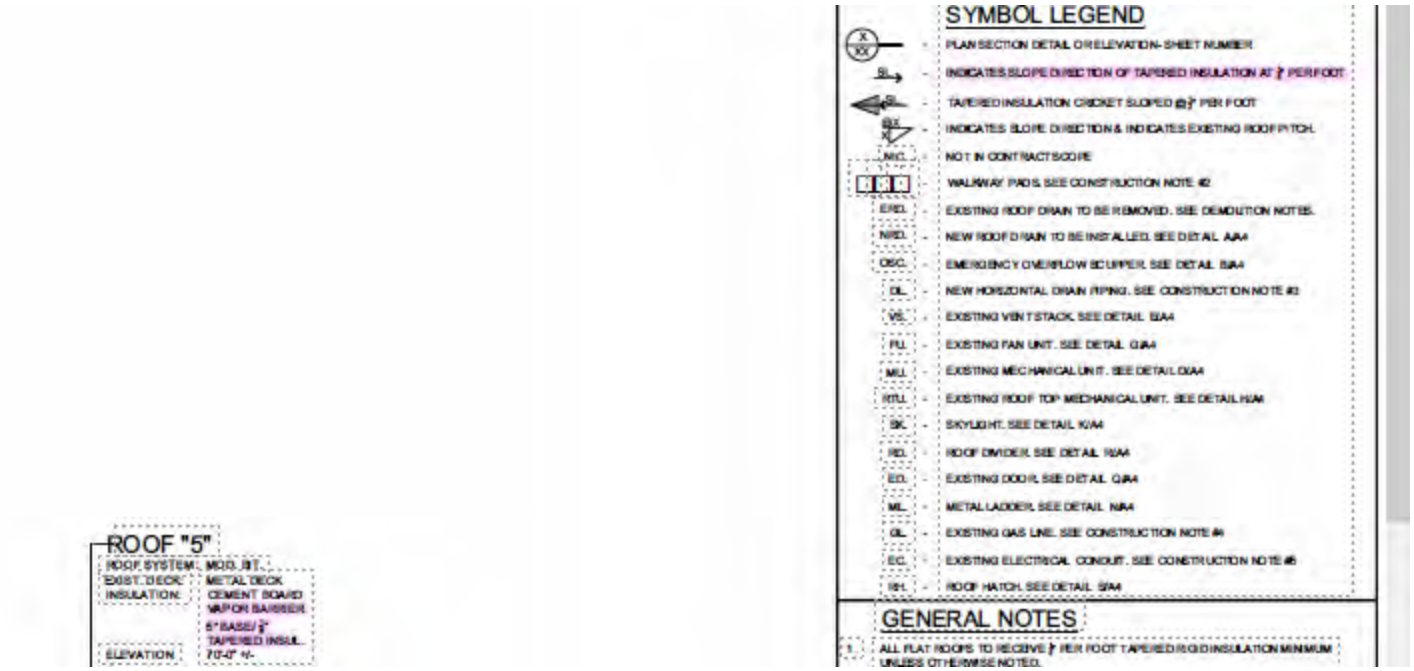
The Contract Documents are hereby amended as follows:

1) The due date to submit proposals has been extended to 10:45AM on February 7, 2024.
2) Roof #6 & #19 are tectum deck substrate & not not metal decking as listed.
3) Roof #5 is structural concrete substrate.

Please refer to the questions and answers below.

Question: Roof Plan Legend states 1/4" tapered per foot. detail states 1/8". Is the insulation to be tapered at 1/4" per foot or 1/8".

235 GRAND STREET • WATERBURY, CONNECTICUT 06702 • PHONE: (203) 574-6749 • FAX: (203) 597-3437



Are all metal roof deck areas to receive cement substrate board?

entering building, or damaging roofing system components or adjacent building construction.

3.4 INSTALLATION OF SUBSTRATE BOARD

A. Install substrate board with long joints in continuous straight lines, with end joints staggered not less than 24 inches in adjacent rows.

1. At steel roof decks, install substrate board at right angle to flutes of deck.

a. Locate end joints over crests of steel roof deck.

2. Tightly butt substrate boards together.
3. Cut substrate board to fit tight around penetrations and projections, and to fit tight to intersecting sloping roof decks.
4. Loosely butt cover boards together and adhere.

3.5 INSTALLATION OF VAPOR RETARDER

A. Self-Adhering-Sheet Vapor Retarder: Prime substrate if required by manufacturer. Install self-

Also, without visiting the school how are we to determine which decks are exposed from below?
Also, if we're to install cement substrate board over metal decks are we still to mechanically fasten the 1st layer of insulation.

I. Install tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.

J. Adhered Insulation (Decks exposed from Below): Install each layer of insulation and adhere to substrate as follows:

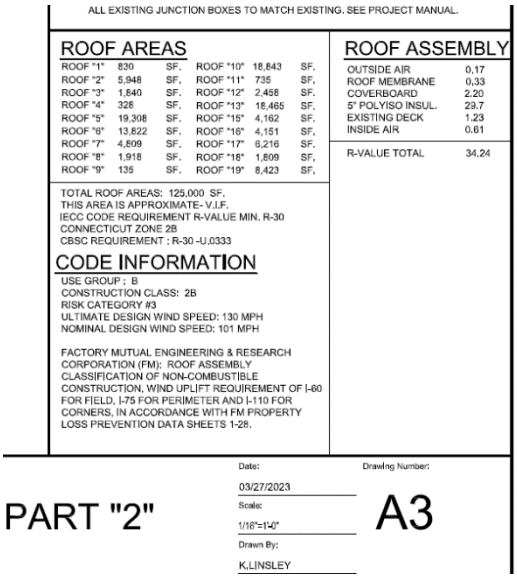
1. Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing, and maintaining insulation in place.
2. Mechanically Fastened and Adhered Insulation (Metal Decks): Install first layer of insulation to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
3. Fasten first layer of insulation to resist uplift pressure at corners, perimeter, and field of roof.
4. Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

K. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints a minimum of 6 inches in each direction from joints of

Answer: All of the individual roof areas depict the tapered insulation requirements on the roof plans.

Question: Each roof area is labeled on the roof plans with the exception of 4 areas. I have highlighted those areas in pink on the attached take-off.

You can find the square footage of each roof area mentioned on the roof plan as shown below.



ALL EXISTING JUNCTION BOXES TO MATCH EXISTING. SEE PROJECT MANUAL.

ROOF AREAS

ROOF "1"	830	SF.	ROOF "10"	18,843	SF.
ROOF "2"	5,948	SF.	ROOF "11"	735	SF.
ROOF "3"	1,640	SF.	ROOF "12"	2,458	SF.
ROOF "4"	328	SF.	ROOF "13"	18,465	SF.
ROOF "5"	19,308	SF.	ROOF "15"	4,162	SF.
ROOF "6"	13,822	SF.	ROOF "16"	4,151	SF.
ROOF "7"	4,809	SF.	ROOF "17"	6,216	SF.
ROOF "8"	1,918	SF.	ROOF "18"	1,809	SF.
ROOF "9"	135	SF.	ROOF "19"	8,423	SF.

TOTAL ROOF AREAS: 125,000 SF.
THIS AREA IS APPROXIMATE- V.I.F.
IECC CODE REQUIREMENT R-VALUE MIN. R-30
CONNECTICUT ZONE 2B
CBSC REQUIREMENT : R-30 -U.0333

CODE INFORMATION

USE GROUP : B
CONSTRUCTION CLASS: 2B
RISK CATEGORY #3
ULTIMATE DESIGN WIND SPEED: 130 MPH
NOMINAL DESIGN WIND SPEED: 101 MPH

FACTORY MUTUAL ENGINEERING & RESEARCH CORPORATION (FM): ROOF ASSEMBLY CLASSIFICATION OF NON-COMBUSTIBLE CONSTRUCTION, WIND UPLIFT REQUIREMENT OF I-60 FOR FIELD, I-75 FOR PERIMETER AND I-110 FOR CORNERS, IN ACCORDANCE WITH FM PROPERTY LOSS PREVENTION DATA SHEETS 1-28.

ROOF ASSEMBLY

OUTSIDE AIR	0.17
ROOF MEMBRANE	0.33
COVERBOARD	2.20
5" POLYISO INSUL.	29.7
EXISTING DECK	1.23
INSIDE AIR	0.61
R-VALUE TOTAL	34.24

PART "2"

Date: 03/27/2023
Scale: 1/16"=1'-0"
Drawn By: K.LINSLEY

Drawing Number: A3

When doing a take-off to identify the metal deck and concrete decks I noticed that Roof 5 states 19308sf
however when I measure the roof it comes to 9613sf. This is the deck with the cement board which requires a different installation than the metal deck and is more costly.

Please help identify the missing 10,000sf of missing cement board roof area or verify if the 19,308sf mentioned on the plan is incorrect.

Also, please identify the roof deck type of the other areas highlighted in pink on the attached roof plan.
If we don't get that answer in time then I will need to assume they are concrete which may bump my bid out.

Answer: Per our calculations Roof #5 is 16,000 SF.

NOTE: Each Proposal over $50,000.00 submitted shall be accompanied by a Proposal Security (a Certified Check or Bid Bond) in the amount of ten (10) percent of the Total Proposal Price.

Thank you.

Maureen McCauley

Assistant Director of Purchasing – City of Waterbury

MAUREEN McCAULEY
ASSISTANT DIRECTOR OF PURCHASING



OFFICE OF THE DIRECTOR OF PURCHASING
THE CITY OF WATERBURY
CONNECTICUT

ADDENDUM #3

February 1, 2024

RFP 7930 Kennedy High School Roof Replacement; Project 151-0307RR

All proposals of the above captioned project are hereby notified that the Contract Documents for the above referenced project are amended as noted in this Addendum No. 2. This Addendum shall be part of the Contract Documents for the above referenced project as provided in the Request for Proposal.

Receipt of this Addendum shall be acknowledged in writing on the form included in Attachment C of the RFP. Failure to do so may subject Proposer to disqualification.

The Contract Documents are hereby amended as follows:

1) Permits are required. However, City building fees are waived for this project.

2) Note: As per Article M of the RFP document, State Set Aside requirements DO apply to this project.

NOTE: Each Proposal over $50,000.00 submitted shall be accompanied by a Proposal Security (a Certified Check or Bid Bond) in the amount of ten (10) percent of the Total Proposal Price.

Thank you.

Maureen McCauley

Assistant Director of Purchasing – City of Waterbury

235 GRAND STREET • WATERBURY, CONNECTICUT 06702 • PHONE: (203) 574-6749 • FAX: (203) 597-3437

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
CONTRACT COMPLIANCE REGULATIONS
NOTIFICATION TO BIDDERS

(Revised 09/3/15)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

(a) the bidder's success in implementing an affirmative action plan;
(b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
(c) the bidder's promise to develop and implement a successful affirmative action plan;
(d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
(e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following BIDDER CONTRACT COMPLIANCE MONITORING REPORT must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists,systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category..

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

White (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East. Black(not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa. Hispanic- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.	Asian or Pacific Islander- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa. American Indian or Alaskan Native- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.

BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

Company Name Street Address City & State Chief Executive	Bidder Federal Employer Identification Number _____ Or Social Security Number_____
Major Business Activity (brief description)	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. Yes __No __ -Bidder is a minority business enterprise Yes __No __ (If yes, check ownership category) Black ___ Hispanic___ Asian American___ American Indian/Alaskan Native ___Iberian Peninsula___ Individual(s) with a Physical Disability___ Female ___
Bidder Parent Company (If any)	- Bidder is certified as above by State of CT Yes__ No__
Other Locations in Ct. (If any)	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes__ No__	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes__ No__
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? Yes__ No__	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes__ No__
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? Yes__ No__	9. Does your company have a mandatory retirement age for all employees? Yes__ No__
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes __No __	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? Yes__ No__ NA__
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes __No __	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes __No __NA __
6. Does your company have a collective bargaining agreement with workers? Yes__ No__ 6a. If yes, do the collective bargaining agreements contain non-discrim ination clauses covering all workers? Yes__ No__ 6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? Yes__ No__	12. Does your company have a written affirmative action Plan? Yes __No __ If no, please explain. 13. Is there a person in your company who is responsible for equal employment opportunity? Yes __No __ If yes, give name and phone number. _____

Part III - Bidder Subcontracting Practices

1. Will the work of this contract include subcontractors or suppliers? Yes__ No___

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above? Yes__ No__

PART IV - Bidder Employment Information

Date:

JOB CATEGORY *	OVERALL TOTALS	WHITE (not of Hispanic origin)		BLACK (not of Hispanic origin)		HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)				2. Check (X) any of the below listed requirements that you use as a hiring qualification (X)		3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination
SOURCE	YES	NO	% of applicants provided by source			
State Employment Service					Work Experience	
Private Employment Agencies					Ability to Speak or Write English	
Schools and Colleges					Written Tests	
Newspaper Advertisement					High School Diploma	
Walk Ins					College Degree	
Present Employees					Union Membership	
Labor Organizations					Personal Recommendation	
Minority/Community Organizations					Height or Weight	
Others (please identify)					Car Ownership	
					Arrest Record	
					Wage Garnishments	

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)

SILKTOWN ROOFING
MANCHESTER, CT

PROPOSER INFORMATION

a. Firm Name:	*Silktown Roofing, Inc.*
b. Main Office Address:	*27 Pleasant Street, Manchester, CT 06040*
c. Date Organized:	*February 1984*
d. Legal Form of Ownership:	*Corporation; Incorporated in Connecticut*
e. How many Years Have you been Engaged in services:	*40 years*
f. Names/Titles of Reporting relationships And principal Members:	*John C. McConville, President* *Megan Giromalo, Vice President* *Joan K. McConville, Corp. Secretary* *(See Attached Resumes)*

27 Pleasant Street ❖ Manchester, Connecticut 06040
860-647-0198 ❖ Fax 860-646-0775
www.silktownroofing.com

SILKTOWN ROOFING
MANCHESTER, CT

ABOUT SILKTOWN

Silktown Roofing is a full-service roofing and waterproofing contractor offering a commitment to service unmatched in the roofing industry. From the largest new construction projects, replacement on existing roofing systems, waterproofing and damp proofing projects, aggressive preventive maintenance for the entire building envelope, and the unexpected emergency leak repair, Silktown Roofing demonstrates the highest level of professional workmanship.

Silktown Roofing, Inc. is a Connecticut corporation, lead by John McConville and incorporated in 1992. Silktown Roofing was founded in 1984 by John with just 6 employees, a couple of trucks, our integrity, and a commitment to build relationships with commercial and industrial customers through service. Since then, we have built a solid reputation, enjoyed steady growth, and achieved recognition from all major roofing material manufacturers for the quality of installation and maintenance of their roofing and waterproofing systems, and our excellence in workmanship.

Now with over 300 employees, our original values of quality workmanship and our commitment to customer service are still our top priority.

We specialize in commercial and industrial roofing and waterproofing applications including, but not limited to, built-up, single-ply, tile, slate, shingles, metal, and all types of waterproofing for the entire building envelope.

All projects, from minor repairs to re-roofing and new roof installations, are dealt with in the same professional manner. Our team of trained roofing professionals tend to each detail of the project and stay in constant communication with our customers from the beginning and throughout the life of each particular system that we work on. We pride ourselves for both Quality and Reliability - the traits our clients have told us were the most important factors in choosing us as their roofing contractor.

Over the years we have continued to upgrade our business with new technology. We have fully computerized accounting, inventory, estimating, project management tracking, and preventive maintenance scheduling systems. These systems assist us in tracking and maintaining every detail of our customers new and existing roofing and waterproofing assets.

We invest in state-of-the-art equipment for the removal and installation of the roofing and waterproofing systems that we work with. We have specialized cranes, high-powered vacuum systems, our own fleet of tractor trailer dump box trailers, rough terrain fork lifts, motorized material handling equipment, and fume recovery systems installed on our asphalt kettles.

We only use warranted materials that have achieved consistent superior performance and inspection ratings. Silktown's professional craftsmen only install products to the manufacturers, or the National Roofing Contractors Associations (NRCA) roofing and waterproofing details.

SILKTOWN ROOFING
MANCHESTER, CT

Continued

Silktown Roofing's safety policies go above and beyond the local state and federal Department of Labor Occupational Safety & Health Administration (OSHA) guidelines. We know that the safety of our customers and our associates comes first. From the first day of hire, our associates attend our safety orientation meeting and are mandated to attend our ongoing weekly safety meetings. We continuously analyze and provide our associates with site specific job and duty hazard analysis that educates and promotes the prevention of accidents into every task that we perform.

With three offices in New England Corporate Office in Manchester, CT (covering eastern Connecticut and Western Massachusetts) and satellite offices in Derby, CT (covering western Connecticut and New York) , and Douglas, MA (covering eastern Massachusetts and Rhode Island) , Silktown can provide timely and cost effective roofing and waterproofing services to customers that have one or several properties in the region.

As we have grown in the size of our organization, and with the confidence of our customers, we have also strengthened our commitment to be responsible corporate citizens. We continue to invest in the education, training, and recruitment of men and women to become professionals in the roofing and waterproofing industry.

At Silktown Roofing, we are proud of who we are and the accomplishments we have achieved. We know that our commitment to service and quality workmanship has made us stand out as the premier contractor of choice. We have built successful relationships with our customers, and they have come to depend on us to continue assisting them in the protection and maintenance of their property and assets.

For all eastern Connecticut and Western Massachusetts contracts, please contact Kevin McGrath, 27 Pleasant Street, Manchester, CT 06040

For all western Connecticut and New York contracts, please contact John Morrissey, 151 Water Street, Derby, CT 06418

For all eastern Massachusetts and Rhode Island contracts please contact Jason Woz, 100 Davis Street, Douglas, MA 01516

SILKTOWN ROOFING
MANCHESTER, CT

JOHN C. McCONVILLE – PRESIDENT

1974 – 1981: McConville Roofing - VP and Superintendent
1981 – 1984: Hartford Roofing, Inc. – Project Superintendent
1984 – Present: Silktown Roofing, Inc. – President

As President of the Corporation, John oversees the everyday workings of the company with the help of the PM's and project superintendents. John believes in hands-on leadership and can be found on jobsites on a regular basis. He is an integral part of each project beginning with the bidding process. John is asked by many Architects/GC's/Owners to help design, value engineer and estimate projects for budget purposes. He is an active board member for the Local Roofer's and Sheet Metal Unions so that he is aware of labor issues and can protect his work force. Before becoming a Union Contractor, John instituted the first non-union roofing Apprenticeship Program in the State of CT in 1990.
While John is involved in all projects, below is a partial list of Silktown customers/projects:

Medical: VA Hospital-Rocky Hill, Gaylord Hospital UCONN Medical Center, Gerber Scientific, Neurogen, Ensign-Bickford, American School for the Deaf, Cedar Crest, Wm. Backus, Hartford, and New Britain Hospitals, SMHA

Corporate: Pepsi, PlasPak, Bozzutto's, Travelers Insurance, Bradlees, Sears, C&S Wholesale Refrigeration, Pfizer, Home Depot, USPS, ESPN, Unilever, Ramada Inn, Foxwood Casino, Mohegan Sun Casino and Hotel, MGM Grand at Foxwoods, Parker Hannifin, Quinnipiac Yale and Wesleyan Universities, Culbro, Hartford Insurance, UTC, Pratt & Whitney, Sikorsky, CIGNA, Lucent Technologies, Stop & Shop, SNET, Rockbestos, Solutia, Fleet Bank, Trinity Episcopal Church, Mt. Saint Alphonsus (NY), Kohler Mix, Caval Tool, Real Art Ways, DOW Chemical, Bayer Corp, Warner Lambert, Nordstrom, Fidelity Investments

Government/Municipal: FAA, Bradley Int'l Airport, Hanscom AF Base, Osborn Correctional Center, Barnes ANG, Murphy Terminal Weather Service & Control Tower- BDL, UConn, CCSU, UMass, Naugatuck CTC, Numerous High Schools in CT and MA, Naval Base-Newport, RI, CT Convention Center, GSA-Murphy Building-Waltham MA, US Coast Guard, CT & MA National Guard, Manchester, Hamden, East Hartford and Manchester, Numerous Town Facilities such as library, fire, police in Connecticut, Massachusetts, Rhode Island and New York.

PV Projects/Green Roof: NAVCC-Culpepper, VA, East Lyme High School, CT, Naugatuck High School, CT, New Britain High School, CT, Plainville High School, CT, Louis Toffolan Elementay School, CT, GSA Murphy Bldg., MA

27 Pleasant Street ~ Manchester, CT 06040
O: 860-647-0198 ~ F: 860-646-0775
Affirmative Action/Equal Opportunity Employer

MEGAN MCCONVILLE GIROLAMO
81 Island Avenue ♦ Madison, CT 06443 ♦ (860) 818-2184 ♦ meg.girolamo@gmail.com

SUMMARY

Accomplished and fiercely motivated Vice President with 12 years' experience in the Commercial Construction industry. Expertise includes tactical business leadership and an efficiency-orientated approach to streamlining and ensuring alignment for all integrations company-wide. Successful collaboration with senior stakeholders to effectively prioritize business activities to achieve defined objectives translating to accomplishments companywide. Successful management of a large team via allowing each individual to thrive, grow and contribute. A high integrity individual with a strong work ethic seeking to constantly continue to drive the bottom-line difference within a company.

PROFESSIONAL EXPERIENCE

Silktown Roofing, Inc.: August 2020-Current
Vice President
- Oversee all finance, human resource and project management operations
- Develop streamlining and software integrations to improve efficiency and communications between the internal departments using Foundation Software (all modules)
- Analyze all job estimates and establish rolling budgets and real-time job cost tracking for all projects
- Manage all Work-In-Progress reporting for financial analysis and general ledger adjustments
- Liaise between all Project Managers, Superintendents and Executives on project deliverables
- Oversee financial reporting and financial statement preparation working directly with CPA for all audited financial activities
- Provide support for all Affirmative Action/Equal Opportunity Employment initiatives and required reporting
- Prepare and review insurance buyouts and Workers Comp/GL annual audit processes
- Ensure job flow efficiencies between all departments
- Provide buyout analysis for estimators/project managers for support in the most competitive bid opportunities
- Manage the employee benefit package renewals
- Participate on the 401K Steering Committee and enforce deliverables for Silktown Roofing, Inc.'s retirement planning for employees
- Manage internal inventory and quality control
- Liaise with the Bonding Company, Banking Executives and all other third-party partners to Silktown Roofing, Inc.
- Lead all hiring initiatives, interviews and onboarding of new employees
- Coordinate and support all internal developmental projects and oversee the designated teams

Offshore Construction, Inc.: November 2010-August 2020
President
- Oversee all production and maintenance/service department operations and schedule
- Provide on site project management and support to all foreman and crew members
- Analyze all elements of production efficiency and job costing for all projects
- Manage all financial responsibilities within the company
- Oversee all new hire operations and procedures
- Liaise as direct contact with all customers, vendors and employees
- Manage internal inventory and quality control
- Provide estimating, budgeting, strategy, and profit building techniques
- Create proposals and bids for new opportunities across service and production work.
- Oversee the management of key client roof asset portfolios
- Establish new relationships with production and maintenance customers throughout the United States

Louis Vuitton Moet Hennessy; Moet Hennessy USA, New York, NY : January 2010-November 2010
Senior Financial Analyst
- Coordinator for all Advertising and Promotional Budget processes
- Continual processing and approving of funding transfers
- Manage the MH USA Corporate Marketing spend and brand cost allocation
- Preparation of monthly inventory and depletion dashboard
- Responsible for quarterly regional accrual process
- Construction of value chain and price determination simulation
- Creation and implementation of a system to track actual spend vs. budget for both regions and brand groups
- Ongoing support for US Regional Finance Managers and twenty-eight brand groups
- Support behind the execution of a new Internal Order coding structure

General Electric; NBC Universal, New York, NY : January 2009-January 2010
Financial Management Program (FMP)
Cable Entertainment; Financial Planning and Analysis

- Managed and consolidated Cable Entertainment headquarters' budget
- Oversaw and analyzed each cable entertainment network's cost tracking and rating performance
- Continued analysis of industry and internal network trending
- Consolidated financial summaries and analyzed business performance across cable group
- Provided analytical support for closes and GE estimate periods
- Led ongoing effort to improve and implement standardized forecasting and automated reporting tools

Corporate Finance & Accounting

- Continued tracking of NBC Universal's general ledger; account analysis and variance resolution
- Responsible for corporate general ledger quarterly/upkeep journal entries
- Design and execute NBC Universal vendor and miscellaneous contract audits
- Performed media industry and competitor analysis; impairment research
- Researched and executed internal and external accounting memorandums
- Facilitated quarter close consolidation and corporate reporting
- Completed NBC Universal Corporate ledger account reconciliations on quarterly basis
- Facilitated account reconciliation audits to ensure compliance and accuracy of GE reporting criteria

Award: GE FMP Leadership Award

EDUCATION

Bachelor of Science in Finance and Economics, Fairfield University, Fairfield, CT **Graduating GPA: 3.8**

ADDITIONAL INFORMATION

- Inductee and member of Beta Sigma Gamma National Business Honor Society and Alpha Sigma Nu Jesuit Honor Society
- Vice President of Fairfield University Student Association
- Charles Dolan Business School Scholarship – Academic Achievement and Leadership Award Spring 2008
- Skills: Strong public speaking and oral communication abilities, Proficiency in Foundation Software, Microsoft Windows, Education in PACT Software, STARR, Reuters, SAP, Topaz, Oasis, Business Warehouse and Hyperion

SILKTOWN ROOFING
MANCHESTER, CT

JOAN K. McCONVILLE- CORPORATE SECRETARY

1992- Present Silktown Roofing, Manchester, CT
Corporate Secretary

As Secretary of the Corporation, Joan K. McConville researches upcoming projects, procures bidding insurance documents, prepares bid documents, prepares contracts, insurance requirements and bonding requirements. She also oversees the contract and any changes that might occur as well as working with the bookkeeping department. She maintains records to insure that Silktown is in compliance with the states in which it is certified.

1984-1992 Welcome Aboard
Travel Agent

Briarwood College (1977-1978)
Associates Degree

SILKTOWN ROOFING
MANCHESTER, CT

PROJECT REFERENCES:

Roger Ludlowe Middle School, Town of Fairfield, CT,:

Contract Price: $3,016,500.00

Contact: Sal Morabito, (203) 255-7363

Sedgwick Middle School, Town of West Hartford, CT:

Contract Price: $669,600.00

Contact: Bill Phibbs, (860) 561-7523

Dunbar & Westwood Schools, Town of Hamden, CT

Contract Price: (Dunbar) $2,626,536.00

(Westwood): $2,880,185.00

Contact: Jeremy Godgill, (860) 204-1006

Job Description	City	State	Contract Amount	Owner	Owner's Contact	Designer/Architect	Designer/ Architect Cont	Start Date	End Date	Complaint
PIRELLI HOTEL	New Haven	CT	$795,200.00	Consigli Construction Co.	Aaron Kureger, 774-573-6964	Becker & Becker Assoc.	203-292-4900	10/28/2020	1/31/2023	N/A
SIKORSKY CLN RM & AUTOCLAVE	Stratford	CT	$170,200.00	Richards Corp.	Harold Brennan, 860-583-9229	Ames & Whitaker Architects	860-284-5064	10/15/2021	1/31/2023	N/A
EVERSOURCE SOUTHBOROUGH	Southborough	MA	$110,000.00	Standard Builders	Bryan Bakas, 860-306-2599	Design-Science	978-369-6565	1/27/2022	1/24/2023	N/A
BRISTOL MEMORIAL MAGNET SCHOOL	Bristol	CT	$984,500.00	D'Amato + Downes Joint Venture	Frank Tomcak, 860-229-3755	Quisenberry, Arcari, Malik, LLC	860-677-4594	11/30/2020	12/31/2022	N/A
USPS NAUGATUCK	Naugatuck	CT	$369,700.00	United States Postal Service	Sandra Chong Ham, Sandra.G.ChongHam@usps.gov	Wood Environmental	832-809-8000	11/22/2019	12/31/2022	N/A
BOSTON FIRE ALARM	Boston	MA	$313,389.00	Paul J. Rogan, Co., Inc.	Paul J. Rogan Jr.	C.S.S. Architects Inc.	781-245-8400	11/22/2021	12/31/2022	N/A
MEDFIELD WELLS 3 + 4 WTCF	Medfield	CT	$58,427.00	Biszko Building Systems Inc.	508-679-0518	Environmental Partner's Group	617-657-0200	8/24/2021	12/31/2022	N/A
RIANG MIDDLETOWN READINESS CTR	Middletown	RI	$20,000.00	Tower Construction Corp.	Brett Casale, 401-943-0110	R G B Architects	401-273-1730	10/25/2021	12/31/2022	N/A
Howe Elementary School	Billerica	MA	$109,119.00	BC Construction Co., Inc.	Deana Morano, 978-2760121	PRA Architects	617-354-3561	7/14/2021	12/29/2022	N/A
AMAZON DISTRIBUTION FACILITY	Windsor	CT	$3,565,000.00	R C Anderson LLC	Christine Bunner, 551-206-4428	BL Companies	203-630-1406	11/2/2020	11/30/2022	N/A
COBURN ELEMENTARY SCHOOL	West Springfield	MA	$958,000.00	Fontaine Bros.	Stan Pchelka, PM 413-627-0997	T.S.K.P. Studios / Dietz & Co. Architecture	860-547-1970	1/11/2021	11/30/2022	N/A
USPS ROXBURY MA	Roxbury	MA	$939,000.00	United States Postal Service	Sandra Chong Ham, Sandra.G.ChongHam@usps.gov	USPS	Sandra Chong Ham, Sandra.G.ChongHam@usps.gov	12/9/2021	11/30/2022	N/A
SIKORSKY DYNAMIC BONDING ROOM	Stratford	CT	$36,728.00	Richards Corp.	Sarah Hamilton, 860-583-9229	OMA Architects, LLC	860-604-5807	2/28/2022	11/30/2022	N/A
MILFORD SCHOOLS REPAIRS	Milford	CT	$48,801.00	Milford Public Schools	Patti Rutherford, 203-783-3430	N/A	N/A	8/2/2021	11/30/2022	N/A
3M STAFFORD SPRINGS	Stafford Springs	CT	$11,620.00	O & G INDUSTRIES	Tyson Burk, 860-387-9985	N/A	N/A	12/20/2021	11/30/2022	N/A
UCONN HEALTH CTR MUNSON ROAD	Farmington	CT	$3,211,000.00	University of CT	Martin Benassi, 203-281-5000	UCHC	860-679-2000	7/19/2016	10/31/2022	N/A
HARTFORD SPORTS & MED SCIENCE ACADEMY	Hartford	CT	$1,019,439.00	City of Hartford	John Butkus (Arcadis) 860-503-1510	Silver Petrucelli	Ken Linsley, 203-230-9007	12/1/2021	10/31/2022	N/A
UCONN GANT PHASE 1	Storrs	CT	$821,900.00	Whiting Turner	Kevin Seidensticker, 203-777-6783	N/A	N/A	11/30/2017	10/31/2022	N/A
MORRISSEY MANOR	West Haven	CT	$1,390,000.00	Savin Rock Communities	Eric Stokes, 203-934-8671 x113	Antinozzi Associates	Paul Lisi, 203-377-1300	8/31/2021	12/31/2022	N/A
CREC ANA GRACE	Bloomfield	CT	$1,796,000.00	BBE Construction	Noal S. Jenkins, 860-922-5068	Friar Architecture	Bryce Sens, 860-856-1489	12/2/2019	9/30/2022	N/A

SILKTOWN ROOFING
MANCHESTER, CT

CERTIFICATE OF CORPORATE VOTE

On *January 26, 2024*, due notice having been given, a Special Meeting of the Board of Directors of Silktown Roofing, Inc. was held. All directors being present and voting, the following was made, seconded and adopted:

That John C. McConville, in his capacity as President, has the power to sign any and all bidding and contract documents relating to the following project: ***KENNEDY HIGH SCHOOL ROOF REPLACEMENT*** and his signature shall be legal and binding upon the corporation.

Joan K. McConville

Joan K. McConville, Corporate Secretary

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

State of Connecticut

ss: Manchester

County of Hartford

February 1, 2024

Personally appeared, Joan K. McConville, Corporate Secretary of Silktown Roofing, Inc., signer and sealer of the foregoing instrument, who being duly authorized, acknowledges the same to be her free act and deed and the free act and deed of said Corporation before me.

Kayla Green

Kayla M. Green, Notary Public
My commission expires: October 31, 2027

KAYLA M. GREEN NOTARY PUBLIC MY COMMISSION EXPIRES 10/31/2027. CONNECTICUT

27 Pleasant Street ❖ Manchester, Connecticut 06040
860-647-0198 ❖ Fax 860-646-0775
www.silktownroofing.com

10.

State of Connecticut

Department of Administrative Services

Construction Contractor Prequalification Program

This certifies

Silktown Roofing, Inc.

27 Pleasant Street, 13 Pleasant Street-Remittance Address, Manchester, CT 06040

As a

Prequalification Construction Contractor

April 15, 2023 through April 14, 2024

CONTACT INFORMATION

Name: Joan K. McConville, Corp. Secretary
Phone: (860) 647-0198
Fax: (860) 646-0775
Email: Joan@silktownroofing.com

Name: John C. McConville, President
Phone: (860) 647-0198
Fax: (860) 646-0775
Email: John@silktownroofing.com

Effective Date	Aggregate Work Capacity (AWC)	Single Limit (SL)	Classifications
4/15/2023	$120,000,000.00	$30,000,000.00	ENERGY MANAGEMENT SYSTEMS, GENERAL BUILDING CONSTRUCTION (GROUP C), HISTORICAL BUILDING RESTORATION (MASONRY, ROOFING), METAL SIDING, ROOFING, WATERPROOFING

Classification Name	Description
ENERGY MANAGEMENT SYSTEMS	The design and installation of systems or maintenance programs to conserve energy use within a building. This category includes shared savings programs.

This certificate prequalifies the named company to bid. It is not a statement of the Contractor's capacity to perform a specific project. That responsibility lies with the awarding authority.

Company Licenses/Registrations: It is the Contractor's responsibility to update their license information by editing their electronic application. Licenses are confirmed by the Department of Administrative Services (DAS) at the time of initial application and at each renewal.

For information regarding the DAS Contractor Prequalification Program visit http://portal.ct.gov/dasprequal or call (860) 713-5280.

GENERAL BUILDING CONSTRUCTION (GROUP C)	The undertaking of general contracts for the construction of buildings i.e. new construction, renovation, rehabilitation, alteration, addition, etc. The contract must include a variety of construction practices and supervision of a minimum of three sub-trades. Includes buildings that are truly custom, requiring extensive detailing, or that have large amounts of integrated scientific or complex mechanical/electrical equipment in order for them to function. Examples include hospitals, chemistry buildings, special collections buildings, historic preservation to a landmark structure, and/or any other structure that is truly one of a kind within the State's inventory.Note: If you are prequalified for General Building Construction under Group C, you are automatically prequalified for Group A and Group B. Also if you are prequalified for General Building Group C you will automatically be prequalified for General Trades.Note: For the purposes of DAS Construction Contractor Prequalification, contractors in this classification are not required to be registered as a major contractor with the Department of Consumer Protection. However, there may be specific projects within this classification that require a major contractor registration from the Department of Consumer Protection.Projects that are threshold buildings may require a Major Contractor Registration.
HISTORICAL BUILDING RESTORATION (MASONRY, ROOFING)	Construction/renovation, masonry, and roofing work will require firms with experience with the Secretary of the Interior's Standards for Rehabilitation issued by the U.S. Department of Interior, National Park Service, Washington, D.C. (Standards for Treatment of Historic Project.)
METAL SIDING	Work customarily performed by this industry including the supply and installation of metal siding where used as external components of custom designed buildings. This does not apply to pre-engineered buildings where the metal siding is a building component.
ROOFING	The installation of various types of roofing materials including shingles, slate, rubber, PVC and related flashing and drainage systems.
WATERPROOFING	Installation, renovation, repair and maintenance of materials required to make foundations, walls and other surfaces of a building dam proof or impervious to water, including such incidental or related work as is customarily performed by those in the waterproofing and dam proofing trades. This category does not include roofing by itself.

State of Connecticut

Department of Administrative Services (DAS) Contractor Prequalification

Update Statement

(Statement to be included with the bid)

Connecticut General Statute §4a-100 and Connecticut General Statute §4b-91

Each bid submitted for a contract shall include an update statement in such form as the Commissioner of Administrative Services prescribes and, if required by the public agency soliciting such bid, a copy of a prequalification certificate issued by the Commissioner of Administrative Services. The form for such update statement shall provide space for information regarding all projects completed by the bidder since the date the bidder's prequalification certificate was issued or renewed, all projects the bidder currently has under contract, including the percentage of work on such projects not completed, the names and qualifications of the personnel who will have supervisory responsibility for the performance of the contract, any significant changes in the bidder's financial position or corporate structure since the date the certificate was issued or renewed, any change in the contractor's qualification statusas determined by the provisions of subdivision (6) of subsection (c) of 4a-100 of the Connecticut General Statutes, and such other relevant information as the Commissioner of Administrative Services prescribes. Any public agency that accepts a bid submitted without a copy of such prequalification certificate, if required by such public agency soliciting such bid, and an update statement, may become ineligible for the receipt of funds related to such bid, except the public agency soliciting such bids may allow bidders no more than two business days after the opening of bids to submit a copy of the prequalification certificate, if required by such public agency, and an update statement.

PROJECT THAT COMPANY IS BIDDING ON

PROJECT NAME	Kennedy High School Roof Replacement
PROJECT NUMBER	Project 151-0307RR

COMPANY INFORMATION

LEGAL BUSINESS NAME	Silktown Roofing, Inc.	
DBA		
TAXPAYER ID	061350674	
BUSINESS ADDRESS	27 Pleasant Street 13 Pleasant Street-Remittance Address	
BUSINESS CITY, STATE, ZIP	Manchester CT 06040	
PREQUALIFICATION CONTACT	Joan K. McConville, Corp. Secretary	(860) 647-0198 ext.
	John C. McConville, President	(860) 647-0198 ext.

PREQUALIFICATION INFORMATION

EXPIRATION DATE	04-14-2024
SINGLE LIMIT	$30,000,000.00
AGGREGATE WORK CAPACITY (AWC)	$120,000,000.00
REMAINING AGGREGATE WORK CAPACITY *	$119,272,400.00

*** The Remaining Aggregate Work Capacity equals your company's AWC minus the Total $ Amount of Work Remaining**

BONDED PROJECTS (BOTH PUBLIC AND PRIVATE) CURRENTLY UNDER CONTRACT

Project Name	Project Owner	% Completed	Total Contract Amount	Work Remaining
SEE ATTACHED				

Total Amount of Work Remaining $72,760.00

BONDED PROJECTS (BOTH PUBLIC AND PRIVATE) WHICH WERE AWARDED AND 100% COMPLETED SINCE THE DATE OF YOUR INITIAL PREQUALIFICATION OR YOUR LAST RENEWAL

SEE ATTACHED

PERSONNEL WHO WILL HAVE SUPERVISORY RESPONSIBILITY FOR THE PERFORMANCE OF THE CONTRACT BEING BID ON

Sean Morrissey, PM

CHANGES IN YOUR COMPANY'S FINANCIAL CONDITION OR BUSINESS ORGANIZATION WHICH MIGHT AFFECT YOUR COMPANY'S ABILITY TO SUCCESSFULLY COMPLETE THIS CONTRACT

HAVE THERE BEEN ANY CHANGES? NO

IF YES, EXPLAIN

I CERTIFY UNDER PENALTY OF LAW THAT ALL OF THE INFORMATION CONTAINED IN THIS UPDATE STATEMENT IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AS OF THE DATE BELOW.

Joan K. McConville

Signature Joan K. McConville, Secretary

2-1-2024

Date

Stiltztown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

It is the responsibility of the Awarding Authority to determine if any of the information provided above will impact the contractor's performance on this project.

The DAS' Contractor Prequalification Program can be reached at DAS.Prequalification@ct.gov

SILKTOWN ROOFING INC
CONTRACTS IN PROGRESS (Major defined as over $100,000.00 contract value)
DAS BID UPDATE STATEMENT ATTACHMENT 1

Project Name	Bonded Y/N	Owner	Contract Value	% Complete	$ Remaining on Contract
87 Union St	YES	Whiting Turner	$ 2,495,441.00	99%	$ 24,954.41
Belmont MS HS	YES	Skanska USA Building Inc.	$ 4,169,789.00	95%	$ 208,489.45
BPL Faneuil Hall	YES	Boston Buildng & Bridge Corp	$ 277,000.00	10%	$ 249,300.00
Buckley Elementary	YES	Town of Manchester	$ 885,568.00	95%	$ 44,278.40
Buttonwood Park Zoo	YES	City of New Bedford	$ 241,000.00	99%	$ 2,410.00
Coburn Elementary	YES	Fontane Brothers Inc.	$ 969,778.00	95%	$ 48,488.90
Curley Community	YES	Boston Buildng & Bridge Corp	$ 550,151.00	99%	$ 5,501.51
Morrisey Manor Roof	YES	Savin Rock Communities	$ 1,491,555.00	95%	$ 74,577.75
New Fairfield HS & PO	YES	O&G Industries	$ 1,255,000.00	90%	$ 125,500.00
Riang Bristol Armory Roof	YES	State of Rhode Island	$ 544,389.00	90%	$ 54,438.90
Uconn Hockey Arena	YES	Turner Construction Company	$ 1,000,569.00	99%	$ 10,005.69
USPS Marblehead ME	YES	Roth Brothers Inc.	$ 170,970.00	90%	$ 17,097.00
USPS Roxbury	YES	USPS Roxbury MA	$ 939,000.00	5%	$ 892,050.00
USPS Wakefield MA MPO	YES	Roth Brothers Inc.	$ 443,000.00	99%	$ 4,430.00
Waltham High School	YES	Consigli Construction	$ 4,732,000.00	30%	$ 3,312,400.00
MIDDLEBROOK SCHOOL	YES	Town of Trumbull	$ 2,091,500.00	0%	$ 2,091,500.00
ASML CAGE & PACK	YES	Hodess Construction	$ 265,866.50	50%	$ 132,933.25
LATIMER LANE SCHOOL	YES	O&G Industries	$ 1,308,000.00	0%	$ 1,308,000.00
BURNS LATINO	YES	PDS ENGINEERING	$ 2,317,300.00	20%	$ 1,853,840.00
YALE CRB	YES	PETRA CONSTRUCTION	$ 632,447.00	10%	$ 569,202.30
HAGAMAN LIBRARY	YES	TOWN OF EAST HAVEN	$ 232,000.00	99%	$ 2,320.00
CORNELL SCOTT	YES	Newfield Construction	$ 275,500.00	10%	$ 247,950.00
SPRINGFIELD CLEARWATER	YES	C.H. NICKERSON	$ 202,100.00	80%	$ 40,420.00
			$ 61,423,300.47		$ 39,972,080.47

SILKTOWN ROOFING INC
MAJOR CONTRACTS CLOSED (Major defined as over $100,000.00 contract value)
DAS BID UPDATE STATEMENT ATTACHMENT 2

Project Name	Bonded Y/N	Owner	Date Completed	Location	Contract Value
Boston Engine #42	YES	Boston Buildng & Bridge Corp	Aug-21	MA	$ 368,707.00
Bristol Memorial	YES	D'Amato & Downes JV	Mar-22	CT	$ 955,319.00
Burr Elementary Sch	YES	Town of Fairfield	Dec-21	CT	$ 946,679.00
Coleytown MS	YES	Newfield Construction	Feb-22	CT	$ 3,018,182.00
CREC Ana Grance	YES	Barlett Brainard Eascott	Mar-22	CT	$ 1,903,684.00
Durfee HS	YES	Suffolk Construction Company	Aug-21	MA	$ 3,897,818.00
East Boston Police	YES	J&J Contractors Inc.	Aug-21	MA	$ 675,062.00
Hall High School	YES	Town of West Hartford	Aug-21	CT	$ 1,100,424.00
Hartford Hosp Bliss	YES	FIP Construction	Feb-22	CT	$ 374,739.00
Haverhill HS Gym	YES	City of Haverhill	Dec-21	MA	$ 697,954.00
LRTA Gallagher & Maguire Roof	YES	Lowell Regional Transit	Mar-22	MA	$ 299,487.00
NUWCD New Isopar	YES	Structural Associates	Sep-21	RI	$ 132,562.00
RI Convent Ctr	YES	SMG RI	May-20	RI	$ 3,713,596.00
Sage Park Middle Sch	YES	Town of Windsor	Aug-21	CT	$ 1,525,576.00
SCSU New Health	YES	Skanska USA Building Inc.	Apr-22	CT	$ 685,438.00
Sedgwick Middle Sch	YES	Town of West Hartford	Aug-21	CT	$ 548,900.00
Sisson Ave Firehouse	YES	City of Hartford	Mar-22	CT	$ 274,296.00
Stonington Middle Sch	YES	Stonington Public Schools	Sep-21	CT	$ 931,670.00
Uconn Gant Phase 1	YES	Whiting Turner	Feb-22	CT	$ 975,526.00
Uconn NW SCI Quad	YES	Bond Brothers Inc.	Apr-22	CT	$ 520,044.00
USPS Boston IMC	YES	Roth Brothers Inc.	Nov-21	MA	$ 150,573.00

AIA Document A310™ – 2010

Bid Bond

CONTRACTOR:
(Name, legal status and address)
Silktown Roofing, Inc.
27 Pleasant St.
Manchester, CT 06040

SURETY:
(Name, legal status and principal place of business)
Hartford Fire Insurance Company
The Hartford - Bond Claim Department
One Hartford Plaza, T-11
Hartford, CT 06155

OWNER:
(Name, legal status and address)
City of Waterbury
Connecticut

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

BOND AMOUNT: 10% of the attached bid

PROJECT:
(Name, location or address, and Project number, if any)
Kennedy High School Roof Replacement

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 1st day of February, 2024

(Witness)	*(Principal)* *(Seal)*
	John C. McConville, President
	(Title)
(Witness)	*(Surety)* *(Seal)*
	Jeri A. Caron, Attorney-in-Fact
	(Title)

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1952 CONNECTICUT

HARTFORD FIRE INSURANCE CO INCORPORATED 1810

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

Init.
/

AIA Document A310™ – 2010. Copyright © 1963, 1970 and 2010 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. Purchasers are permitted to reproduce ten (10) copies of this document when completed. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.
061110

POWER OF ATTORNEY

Direct Inquiries/Claims to:
THE HARTFORD
BOND, T-11
One Hartford Plaza
Hartford, Connecticut 06155
Bond.Claims@thehartford.com
call: **888-266-3488** *or fax:* **860-757-5835**

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Name: SINCLAIR RISK & FINANCIAL SVCS LLC
Agency Code: 02-021659

- [X] **Hartford Fire Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- [ ] **Hartford Casualty Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Accident and Indemnity Company**, a corporation duly organized under the laws of the State of Connecticut
- [ ] **Hartford Underwriters Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- [ ] **Twin City Fire Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Insurance Company of Illinois**, a corporation duly organized under the laws of the State of Illinois
- [ ] **Hartford Insurance Company of the Midwest**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Insurance Company of the Southeast,** a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint
Jeri A. Caron
of Wallingford, Connecticut,
its true and lawful Attorney-in-Fact, to sign its name as surety(ies) only as delineated above by , and to execute, seal and acknowledge the following bond, undertaking, contract or written instrument:
Bond No. 02BCSJD8500
Naming Silktown Roofing, Inc. as Principal,
and City of Waterbury as Obligee,
in the amount of See Bond Form(s) on behalf of Company in its business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 23, 2016 the Companies have caused these presents to be signed by its Assistant Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.

Shelby Wiggins

Shelby Wiggins, Assistant Secretary

Joelle L. LaPierre

Joelle L. LaPierre, Assistant Vice President

STATE OF FLORIDA
COUNTY OF SEMINOLE } **ss.** Lake Mary

On this 20th day of May, 2021, before me personally came Joelle LaPierre, to me known, who being by me duly sworn, did depose and say: that (s)he resides in Seminole County, State of Florida; that (s)he is the Assistant Vice President of the Companies, the corporations described in and which executed the above instrument; that (s)he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that (s)he signed his/her name thereto by like authority.

Jessica Ciccone

Jessica Ciccone
My Commission HH 122280
Expires June 20, 2025

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of February 1, 2024.

Signed and sealed in Lake Mary, Florida.

Keith Dozois

Keith D. Dozois, Assistant Vice President

18.

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 2024)
Persons or Entities Conducting Business with the City

I. Outstanding Purchase Orders of Contracts with the City

A. Contracts

No Contracts with the City ☑

(Service or Commodity Covered by Contract)

(Term of Contract)

(Service or Commodity Covered by Contract)

(Term of Contract)

(Service or Commodity Covered by Contract)

(Term of Contract)

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 2024)
Persons or Entities Conducting Business with the City

B. Purchase Order(s).

No Purchase Order(s) with the City ☑

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 2024)
Persons or Entities Conducting Business with the City

II. Financial Interest Disclosure

(Public Officials, Employees or Board and Commission Members with interest in Person or Entity Conducting Business with the City)

No Officials, Employees or Board and Commission Members with Financial Interest ☑

(Name of Official)

(Position with City)

(Nature of Business Interest)
(e.g. Owner, Director etc...)

Interest Held By:
Self ☐ Spouse ☐ Joint ☐ Child ☐

(Name of Official)

(Position with City)

(Nature of Business Interest)
(e.g. Owner, Director etc...)

Interest Held By:
Self ☐ Spouse ☐ Joint ☐ Child ☐

1. I certify that this Annual Statement of Financial Interests is a complete and accurate statement of those matter required to be disclosed by me pursuant to §39.061 of the Code of Ordinances.

2. I understand that if I fail to file an Annual Statement (or amendment thereto) or an inaccurate Statement I will be in violation with Chapter 39 of the Code of Ordinance and, thereby, subject to the remedies set forth in §§38.71 and 39.101 of said Code.

3. I understand that I must file with the City Clerk, within fifteen (15) days following any reportable occurrence, any amendments to the Annual Statement.

I have read and agree to the above certification.

SILKTOWN ROOFING INC.
(Name of Company, if applicable)

Maureen Damaschi
Signature of Individual (or Authorized Signatory)

01/23/2024
Date

Maureen Damaschi, Controller
Print or Type Name and Title (if applicable)

DELIVERED | By Mail ☐ Hand-Delivered ☐

City of Waterbury Certification
Regarding
Debarment, Suspension, Ineligibility and Exclusion

If the transaction is Federally funded, in whole or in part (including pass through grants to state and/or municipal government), this certification is required by the regulations implementing one or more Presidential Executive Orders. If this transaction is funded by the State of Connecticut, in whole or in part, this certification is required in accordance with one or more State of Connecticut general statutes.

1. By signing and submitting the attached proposal and/or this document, the prospective lower tier participant, vendor, or contractor is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant, vendor, or contractor knowingly rendered an erroneous certification, in addition to other remedies available to the Federal , State, or City government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant, vendor or contractor shall provide immediate written notice to the person to which the attached proposal and/or this document is submitted if at any time the prospective lower tier participant, vendor or contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction", "principal", "proposal", and "voluntarily excluded", as used herein, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549 and/or State of Connecticut statutes and regulations. You may contact the person to which this proposal and/or this document is submitted for assistance in obtaining a copy of the foregoing.
5. The prospective lower tier participant, vendor or contractor agrees by submitting the attached proposal and/or this document that, should the proposed covered transaction be entered into, it shall not knowingly enter into any covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant, vendor or contractor further agrees by submitting the attached proposal and/or this document that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion-Lower Tier Covered Transactions", without modification, in all covered transaction and in all solicitations for covered transactions.
7. A participant in a covered transaction may rely upon the certification of a prospective participant in a covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may but is not required to, check the Non-procurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required herein. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 herein, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal, State or Municipal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification

(1) The prospective recipient of monies hereby certifies, by submission of its attached proposal and/or by execution of this document, that neither it nor its principles are presently debarred, suspended, proposed for debarment, declared ineligible, disqualified, or voluntarily excluded from bidding or participation in the proposed transaction by any Federal, State, or Municipal department or agency or by the statutes, regulations or ordinances of the foregoing departments and agencies.

(2) Where the prospective recipient of monies is unable to certify to any of the statements in this certification, such prospective participant shall attach a written explanation hereto.

Full Legal Name and address of Recipient, Vendor, or Contractor:

Silktown Roofing, Inc.
27 Pleasant Street
Manchester, CT 06040

Print Name and Title of Authorized Representative:

John C. McConville, President

Signature of Authorized Representative:

Date: 2-1-2024

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

For the purposes of this Disclosure of Outstanding Financial Obligations, the following definitions apply:

(a) "Contract" means any Public Contract as defined below.

(b) "Person" means one (1) or more individuals, partnerships, corporations, associations, or joint ventures.

(c) "Public Contract" means any agreement or formal commitment entered into by the city to expend funds in return for work, labor, services, supplies, equipment, materials or any combination of the foregoing, or any lease, lease by way of concession, concession agreement, permit, or per agreement whereby the city leases, grants or demises property belonging to the city, or otherwise grants a right of privilege to occupy or to use said property of the city.

(d) "City" means any official agency, board, authority, department office, or other subdivision of the City of Waterbury.

State of Connecticut

SS.: Manchester

County of Hartford

John C. McConville, being first duly sworn, deposes and says that:

1. I am the ***owner, partner, officer, representative, agent or*** President of Silktown Roofing, Inc. (Contractor's Name), the Contractor that has submitted the attached agreement.

2. I am fully informed respecting the preparation and contents of the attached Agreement and of all pertinent circumstances respecting such Agreement;

3. That as a person desiring to contract with the City (check all that apply):

____ The Contractor and each owner, partner, officer, representative, agent or affiliate of the Contractor has filed a list of taxable personal property with the City of Waterbury for the most recent grand list, as required by Conn. Gen. Stat. §12-42.

__X__ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor are required to file a list of taxable personal property with the City of Waterbury for the most recent grand list, as required by Conn. Gen. Stat. §12-42.

__X__ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor either directly or through a lease agreement, owes back taxes to the City of Waterbury

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

__X__ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor either directly or through a lease agreement, has any other outstanding obligations to the City of Waterbury

4. The following list is a list of the names of all persons affiliated with the business of the Contractor, if none state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

	Name	Title	Affiliated Company (if none state NONE)	Service or Material	DOB
1	N/A	N/A	N/A	N/A	N/A
2					
3					
4					

5. That as a person desiring to contract with the City:

(a) The Contractor or an owner, partner, officer, representative, agent or affiliate of the Contractor provides, or has provided, services or materials to the City within one (1) year prior to the date of this disclosure, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

	Name	Title	Affiliated Company (if none state NONE)	Service or Material	DOB
1	N/A	N/A	N/A	N/A	N/A
2					
3					
4					

(b) The Contractor possesses an ownership interest in the following business organizations, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized) :

	Organization Name	Address	Type of Ownership
1	NONE.		
2			
3			
4			

(c) The following persons possess an ownership interest in the Contractor. If the Contractor is a corporation, list all of the officers of the corporation and the names of each stockholder whose shares exceed twenty-five

(25) percent of the outstanding stock, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

	Name	Title	DOB	Stock %
1	John C. McConville	President	8/28/56	100%
2				
3				
4				

(d) Of the following of the affiliates, individuals or business entities identified in this affidavit, list each that owns, owned, or within one (1) year prior to the date of this disclosure has owned, taxable property situated in the City of Waterbury, if none state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

	Name	Title	Affiliated Company (if none state NONE)	Address	DOB
1	NONE.				
2					
3					
4					

(e) If the Contractor conducts business under a trade name, the following additional information is required: the place where such entity is incorporated or is registered to conduct such business; and the address of its principal place of business, if none, state none:

	TRADE NAME	PLACE OF INCORPORATION/REGISTRY	PRINCIPAL PLACE OF BUSINESS
1	N/A	N/A	N/A
2			
3			
4			

I hereby certify that the statements set forth above are true and complete, and I understand that any incorrect information or omission of information from this affidavit may result in the immediate termination of the Contractor's agreement with the City of Waterbury.

For Partnership/Sole Proprietor

In presence of:

N/A
Witness

N/A
Name of Partnership/Business

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

By: N/A
Name of General Partner/ Sole Proprietor

N/A
Address of Business

State of N/A)

) SS

County of N/A)

N/A being duly sworn,

Deposes and says that he/she is N/A of N/A and that he/she answers to the foregoing questions and all statements therein are true and correct.

Subscribed and sworn to before me this N/A day of _____ 202_.

(Notary Public)

My Commission Expires: N/A

For Corporation

Witness

John C. McConville, President
Name of Corporate Signatory

27 Pleasant Street, Manchester, CT 06040
Address of Business

Affix Corporate Seal

Silkrom Roofing Incorporated CORPORATE SEAL ESTABLISHED 1982 CONNECTICUT

By: _____
Name of Authorized Corporate Officer
John C. McConville

Its: President
Title

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

State of Connecticut)

) SS Manchester

County of Hartford)

John C. McConville being duly sworn,

deposes and says that he/she is President of Silktown Roofing, Inc. and that he/she answers to the foregoing questions and all statements therein are true and correct.

Subscribed and sworn to before me this 1st day of February 2024.

Kayla M. Green (Notary Public)

My Commission Expires: October 31, 2027

KAYLA M. GREEN NOTARY PUBLIC MY COMMISSION EXPIRES 10/31/2027 CONNECTICUT

ATTACHMENT C

KEVIN MC CAFFERY
DIRECTOR OF PURCHASING
235 GRAND STREET, ROOM 103
WATERBURY, CT 06702

The undersigned declares that the only persons or parties interested in this Proposal as principals are as stated; that the Proposal is made without any collusion with other persons, firms, or corporations; that Proposer has carefully examined the entire Request for Proposal; that Proposer has informed itself fully in regard to all conditions pertaining to the Work and the place where it is to be performed; and that with this representation, the undersigned makes this Proposal. These prices shall cover all expenses incurred in performing the Work required under the Contract Documents, of which this Proposal and Form are a part.

The undersigned agrees and covenants that the Contract Time shall commence on delivery of the City of Waterbury's written notice to proceed, which shall occur after contract execution by both parties.

The undersigned acknowledges receipt of addenda numbered: (insert date)

1 Add 2 - 1/26/24 4 _____

2 Add 2 - 1/31/24 5 _____

3 Add 3 - 2/1/24 6 _____

All Work for this Project shall be performed at the Proposal Prices as described in the Proposal Documents.

The undersigned hereby certifies under the penalties of perjury that this Proposal is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this section, the work "person" shall mean any natural person, joint venture, partnership, corporation, or other business or legal entity.

06-1350674
Social Security Number
or Federal Identification Number

Signature of Individual or Corporate Name

John C. McConville, President / Silktown Roofing, Inc.
Corporate Officer
(if applicable)

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

City notice of acceptance should be mailed, telegraphed or delivered to the undersigned Proposer at the following address:

Name Sean Morrissey
By: Project Manager
(Title)
Business Address: 151 Water Street
(City, State, Zip Code)
Derby, Connecticut
06418
Phone: (203) 735-0552
Email: sean@silktownroofing.com
Date: 2-1-2024

Note: If the Proposer is a corporation, indicate State of incorporation under signature, and affix corporate seal; if a partnership, give full names and residential addresses, if different from business address.

Incorporated in Connecticut
John C. McConville, President
Megan Girolamo, Vice President
Joan K. McConville, Corporate Secretary

STATE OF CONNECTICUT
DEPARTMENT OF CONSUMER PROTECTION

This is your Major Contractor registration certificate for your records. Such registration shall be shown to any properly interested person on request. Do not attempt to make any changes or alter this certificate in any way. This registration is not transferable. Questions regarding this registration can be emailed to the Occupational & Professional Licensing Division at dcp.occupationalprofessional@ct.gov.

In an effort to be more efficient and Go Green, the department asks that you keep your email information with our office current to receive correspondence. You can update your email address or print a duplicate certificate by logging into your account with your User ID and Password at www.elicense.ct.gov.

Mailing address:

SILKTOWN ROOFING INC
27 PLEASANT ST
MANCHESTER, CT 06040-5891

Email on file to be used for receiving all notices from this office:

kim@silktownroofing.com

954603

STATE OF CONNECTICUT ✦ DEPARTMENT OF CONSUMER PROTECTION

Be it known that

SILKTOWN ROOFING INC

27 PLEASANT ST
MANCHESTER, CT 06040-5891

has satisfied the qualifications required by law and is hereby registered as a

MAJOR CONTRACTOR

Registration #: MCO.0900776
Effective Date: 07/01/2023
Expiration Date: 06/30/2024

verify online at www.elicense.ct.gov

Bryan T. Cafferelli, Commissioner

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 4/25/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Sinclair Insurance Group, Inc. 35 Thorpe Ave Ste 200 Wallingford CT 06492 License#: 2328358	CONTACT NAME: Renee Wozniak PHONE (A/C, No, Ext): 203-284-3226 FAX (A/C, No): 203-284-3226 E-MAIL ADDRESS: rwozniak@srfm.com
INSURED Silktown Roofing Inc. 27 Pleasant Street Manchester, CT 06040 SILKROO-05	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : National Fire Co. of Hartford — 20478 INSURER B : American Casualty of Reading — 20427 INSURER C : Zurich Insurance — 16535 INSURER D : Allied World Assurance Co. — 22730 INSURER E : Indemnity Ins Co of N America — 43575 INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 2022014273 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR X XCU Included X Contractual Liab GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [X] PRO-JECT LOC X OTHER: NO Residen Excl			5092135340	5/1/2023	5/1/2024	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 1,000,000 $ 100,000 $ 15,000 $ 1,000,000 $ 2,000,000 $ 2,000,000 $
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY X HIRED AUTOS ONLY SCHEDULED AUTOS X NON-OWNED AUTOS ONLY X G-21578 Poll			C 5092135337	5/1/2023	5/1/2024	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ 1,000,000 $ $ $ $
E	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 10,000			N1106940A	5/1/2023	5/1/2024	EACH OCCURRENCE AGGREGATE $	$ 5,000,000 $ 5,000,000 $
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N [N] N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			WC 5 92135354	5/1/2023	5/1/2024	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
D C	Excess Liability Poll/Prof Incl MOLD			0310-6855 AEC3140017-03	5/1/2023 5/1/2023	5/1/2024 5/1/2024	Ea Occ/Aggregate Aggregate Limit	5,000,000 10,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Evidence of Insurance

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

R C Wozniak

© 1988-2015 ACORD CORPORATION. All rights reserved.

The ACORD name and logo are registered marks of ACORD

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
CONTRACT COMPLIANCE REGULATIONS
NOTIFICATION TO BIDDERS

(Revised 09/3/15)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

(a) the bidder's success in implementing an affirmative action plan;
(b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
(c) the bidder's promise to develop and implement a successful affirmative action plan;
(d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
(e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following BIDDER CONTRACT COMPLIANCE MONITORING REPORT must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

2) Description of Job Categories (as used in Part IV Bidder Employment Information) (Page 2)

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists,systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category..

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

White (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East. Black(not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa. Hispanic- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.	Asian or Pacific Islander- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa. American Indian or Alaskan Native- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.

BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

Company Name Silktown Roofing, Inc. Street Address 27 Pleasant Street City & State Manchester, CT 06040 Chief Executive John C. McConville, President	Bidder Federal Employer Identification Number XX-XXX0674 Or Social Security Number_____
Major Business Activity (brief description) Roofing Contractor	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. Yes __ No X -Bidder is a minority business enterprise Yes __ No X (If yes, check ownership category) Black ___ Hispanic ___ Asian American ___ American Indian/Alaskan Native ___ Iberian Peninsula ___ Individual(s) with a Physical Disability ___ Female ___
Bidder Parent Company (If any) N/A	- Bidder is certified as above by State of CT Yes __ No X
Other Locations in Ct. (If any) 151 Water Street, Derby, CT 06418	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes X No __	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes X No __
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? Yes X No __	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes X No __
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? Yes X No __	9. Does your company have a mandatory retirement age for all employees? Yes __ No X
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes X No __	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? Yes X No __ NA __
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes __ No X	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes __ No __ NA X
6. Does your company have a collective bargaining agreement with workers? Yes X No __ 6a. If yes, do the collective bargaining agreements contain non-discrim ination clauses covering all workers? Yes X No __ 6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? Yes X No __	12. Does your company have a written affirmative action Plan? Yes X No __ If no, please explain. 13. Is there a person in your company who is responsible for equal employment opportunity? Yes X No __ If yes, give name and phone number. Maureen Damaschi, EEO Officer, 860-432-7346

Part III - Bidder Subcontracting Practices

1. Will the work of this contract include subcontractors or suppliers? Yes X No___

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

Adler Roof Vac - non SBE/MBE
Custom Pipe & Drain - Non SBE
Pelweld - Non SBE/MBE
Air Temp Mechanicals - SBE
A Royal Flush - SBE
Giliberto & Sons - SBE
Hartford Lumber - SBE

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above? Yes__ No X

PART IV - Bidder Employment Information

Date:

JOB CATEGORY *	OVERALL TOTALS	WHITE (not of Hispanic origin)		BLACK (not of Hispanic origin)		HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

SEE ATTACHED

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

PART V - Bidder Hiring and Recruitment Practices

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)				2. Check (X) any of the below listed requirements that you use as a hiring qualification		3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination
SOURCE	YES	NO	% of applicants provided by source	(X)		
State Employment Service	X		.5%		Work Experience	
Private Employment Agencies					Ability to Speak or Write English	
Schools and Colleges					Written Tests	
Newspaper Advertisement					High School Diploma	
Walk Ins					College Degree	
Present Employees				X	Union Membership	
Labor Organizations	X		99%		Personal Recommendation	
Minority/Community Organizations	X		.5%		Height or Weight	
Others (please identify)					Car Ownership	
					Arrest Record	
					Wage Garnishments	

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

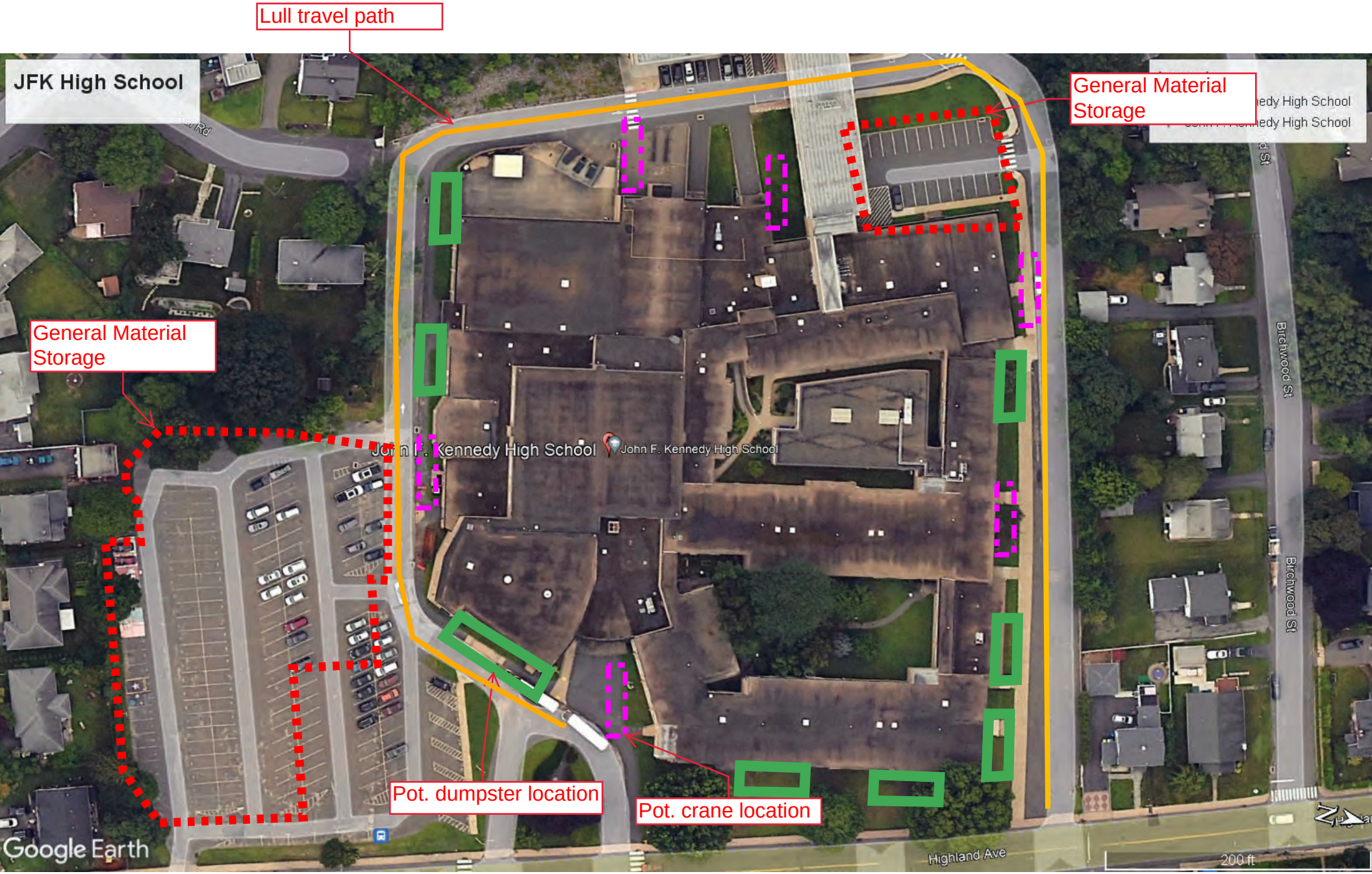
(Signature)	(Title)	(Date Signed)	(Telephone)
John C. McConville	President	February 1, 2024	860-647-0198



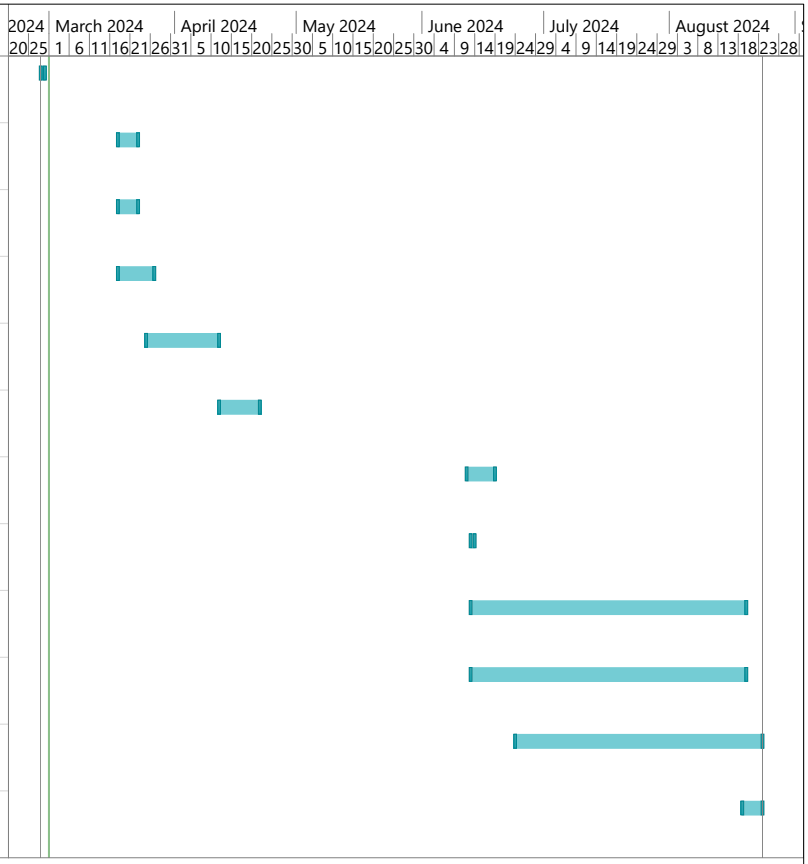
COMPANY EMPLOYMENT STATISTICS REPORT
STATE OF CONNECTICUT
COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES

Company name:	Street Address:	City, State, Zip code:
Silktown Roofing Inc	27 Pleasant Street	Manchester, CT 06040
Company Official: John C. McConville	Title President	Telephone No. 860-647-0198
Project # 151-0307 RR Kennedy High School Roof Replacement	Location 422 Highland Ave. Waterbury, CT 06708	Date February 7, 2024

Job/Trade Title	Total # of Employees		% # of Females	Total White Employees		Total Black Employees		Total Hispanic Employees		Other Race Employees		Sub Total Minority Males	% # of Minority Males
	M	F		M	F	M	F	M	F	M	F		
Officials Managers	4	1	20	4	1	0	0	0	0	0	0	0	0
Professionals	19	3	14	19	2	0	0	0	1	0	0	0	0
Clericals	0	9	100	0	9	0	0	0	0	0	0	0	0
Roofer Journeymen	106	0	0	41	0	16	0	48	0	1	0	65	61
Roofer Foreman	26	0	0	14	0	1	0	11	0	0	0	15	58
Roofer Apprentice	14	0	0	5	0	2	0	7	0	0	0	9	64
Totals	169	13	7	83	12	19	0	66	1	1	0	86	51


Lull travel path
JFK High School
General Material Storage
General Material Storage
John F. Kennedy High School
John F. Kennedy High School
Birchwood St
Birchwood St
Pot. dumpster location
Pot. crane location
Highland Ave
Google Earth
200 ft

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors
1		Initial Scope Meeting	1 day	Wed 2/28/24	Wed 2/28/24	
2		Contract	5 days	Mon 3/18/24	Fri 3/22/24	
3		Subcontractor Contracts	5 days	Mon 3/18/24	Fri 3/22/24	
4		Submittals	7 days	Mon 3/18/24	Tue 3/26/24	
5		Material Procurement	14 days	Mon 3/25/24	Thu 4/11/24	
6		*Potential April Break Work*	7 days	Fri 4/12/24	Sun 4/21/24	
7		Summer Mobilization	5 days	Wed 6/12/24	Tue 6/18/24	
8		Roofing Rip Begin	1 day	Thu 6/13/24	Thu 6/13/24	
9		Subcontractor Work	48 days	Thu 6/13/24	Mon 8/19/24	
10		Roof Removal and Replacement	48 days	Thu 6/13/24	Mon 8/19/24	
11		Metal Installation	45 days	Mon 6/24/24	Fri 8/23/24	
12		Demobilization	5 days	Mon 8/19/24	Fri 8/23/24	



Project: JFK High School - Sche
Date: Fri 3/1/24

Task	Inactive Task	Manual Summary Rollup	External Milestone
Split	Inactive Milestone	Manual Summary	Deadline
Milestone	Inactive Summary	Start-only	Progress
Summary	Manual Task	Finish-only	Manual Progress
Project Summary	Duration-only	External Tasks	

SILKTOWN ROOFING
MANCHESTER, CT

3/4/2024

The City of Waterbury
235 Grand Street
Waterbury, CT 06702
Attn: Kevin McCaffery

RE: Waterbury Public Schools
RFP 7930 – Roof Replacement Kennedy High School
RFP 7931 – Roof Replacement Tinker Elementary School
RFP 7932 – Roof Replacement Sprague Elementary School

Dear Kevin,

Pursuant to our meeting regarding the aforementioned projects we are prepared to offer to following:

RFP 7930 Roof Replacement Kennedy High School: DEDUCT from bid price ($75,000.00)*
RFP 7931 Roof Replacement Tinker ES: DEDUCT from bid price ($10,000)*1
RFP 7932 – Roof Replacement Sprague ES: DEDUCT from bid price ($10,000)*1

*: These offers are ONLY valid if we are provided the opportunity to perform work at **all 3** schools over the April vacation period. If we are not provided with that opportunity, there shall be no deduction given.
1: IN ADDITION TO THE ABOVE, there shall be no deductions for Tinker or Sprague if we are not awarded JFK High School.

If we are only awarded JFK – there would be no deduction from our bid price of $2,957,000.00.

However, for Silktown to hold the aforementioned pricing, Silktown requires a letter of intent from the City of Waterbury by March 15th, 2024, by 4PM. After the letter of intent, Silktown will deliver technical submittals not later than the week of March 25th with completed review returned to us by April 1st. Silktown would also need the town to allow Silktown to begin loading the jobsites on the afternoon of April 12th in the event we work during the April vacation.

27 Pleasant Street ❖ Manchester, Connecticut 06040
860-647-0198 ❖ Fax 860-646-0775
www.silktownroofing.com

Also enclosed are the requested weather dependent project schedules as well as potential staging areas.

We look forward to hopefully working with you on these projects. Should you have any questions or require additional information, please do not hesitate to contact me.

Very Truly Yours,

SILKTOWN ROOFING, INC.

John Morrissey
General Manager
P. (203)-735-0552

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Kennedy High School Roof Replacement
RFP# 7930
Project 151-0307RR
ATTACHMENT E
Revised Price Proposal

(Must be submitted as part of Proposal in a separate sealed envelope, marked "Confidential: Price Proposal.")

*: These offers are ONLY valid if we are provided the opportunity to perform work at **all 3** schools over the April vacation period. If we are not provided with that opportunity, there shall be no deduction given.
1: IN ADDITION TO THE ABOVE, there shall be no deductions for Tinker or Sprague if we are not awarded JFK High School.
If we are only awarded JFK - there would be no deduction from our bid price of $2,957,000.00.
Revised pricing below includes deductions pursuant to letter.

Date: 3-6-2024

Kevin McCaffery
Director of Purchasing
City of Waterbury
235 Grand Street, Room 103
Waterbury, CT 06702

Sir:

Pursuant to and in compliance with your RFP, the Undersigned,

Silktown Roofing, Inc.
(Print or Type Company/Corporate Name)

27 Pleasant Street, Manchester, CT 06040
(Print or Type Business Address)

having carefully examined all the RFP Documents, together with all Addenda, as acknowledged on Attachment C, and having informed itself fully in regard to all conditions and related requirements pertaining to the performance of services required under this RFP; and that with this representation, the undersigned makes this Proposal, as follows:

[Proposal continued on following page(s)]

Roof Replacement		
Description	**Amount (In Words)**	**Amount (In $)**
Kennedy High School	Two Million Eight Hundred Eight Two Thousand Dollars	**$**2,882,000.00*
	GRAND TOTAL	**$** 2,882,000.00*

Alternates:

The undersigned proposes to furnish all Labor, Materials, Equipment and Services necessary to construct the items listed in the Alternates described in Section 012300 for the stipulated sum of:

DEDUCT ALTERNATE #1: Twenty (20) Year Warranty: Deduct from the Base Bid a Total of:

$ N/A _____ Dollars ($ N/A .00).
written figure

The project schedule will be (increased/decreased) by N/A calendar days to complete the work indicated under Deduct Alternate 1.

Unit Prices (See Section 012200):

As required by the Base Bid, should inadequate, deteriorated, or damaged materials be required to be removed as determined by the Architect or Owner, the cost to remove and replace the referenced material, (or credit for specified material not provided or installed) including all labor, material, equipment, and related furnishings is as follows:

Item	Description	Unit Price
1.	Tectum roof deck, thickness to match existing roof deck to be removed (including deteriorated roof deck removal, credit and add)	$ 15.00 sf
2.	Add pressure treated wood blocking, as specified, cut to fit around roof structure and systems installed	$ 4.50 bf
3.	Deduct pressure treated wood blocking, as specified, cut to fit around roof structure and system installed	$ 3.50 bf

END OF ATTACHMENT E

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE ON FINANCE

Item #11.2

February 16, 2023

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee on Finance moves that the Waterbury Board of Education approve of a Construction Contract (RFP #7932) with Silktown Roofing for Sprague Elementary School Roof Replacement.

WATERBURY
PUBLIC SCHOOLS

Nicholas J. Albini
Chief Operating Officer
(203) 346-2340
nalbini@waterbury.k12.ct.us

EXECUTIVE SUMMARY

DATE: March 14, 2024

TO: Honorable Board of Education Commissioners
Honorable Board of Aldermen Members

FROM: Nicholas J. Albini, Chief Operating Officer

RE: Construction Contract for Roof Replacement at Sprague Elementary School (RFP#7932) with Silktown Roofing, Inc.

The Education Department respectfully requests your review and approval of a construction contract for Roof Replacement at Sprague Elementary School in the total amount of $864,000, which includes an owner controlled contingency of $40,000 for the above mentioned scope. The contract was initiated under the Request for Proposal #7932 in which Silktown was deemed the lowest bidder and the most qualified. This Agreement is subject to minor, non-substantive changes to be approved by the Office of the Corporation Counsel.

The project consists of roof replacement of the existing building, generally including removal and replacement of existing membrane roofing, metal ladders, roof decking, drains, roof hatches and accessories. The project is being funded through the State of Connecticut's Department of Administrative Services School Construction Grant Program. In order for Silktown to complete all work and services within 120 days from the City's notice to proceed, they will need to begin work over the scheduled April break. This will also minimize the impact on school activities. Silktown has performed satisfactorily at West Side Middle School and Gilmartin Elementary School in the past.

The Education Department will have a representative present at your upcoming meetings to answer any questions you may have regarding this matter. Thank you for your continued assistance on this matter.

c: Dave Heavener, Mike Konopka

CONSTRUCTION CONTRACT
RFP Number 7932
for
Sprague Elementary School Roof Replacement
between
City of Waterbury
and
Silktown Roofing, Inc.

THIS CONTRACT, effective on the date signed by the Mayor, is by and between the CITY OF WATERBURY, City Hall, 235 Grand Street, Waterbury, Connecticut (the "City") and Silktown Roofing, Inc., located at 27 Pleasant Street, Manchester, Connecticut, a duly registered Connecticut Corporation (the "Contractor").

WHEREAS, the City's purchases under the Agreement will be funded by monies received by the City through the State of Connecticut, Department of Administrative Services (DAS), Office of School Construction Grants and Review (OSCG&R); and

WHEREAS, the Contractor submitted a bid to the City in response to **Request for Proposal ("RFP") Number 7932** for roof replacement and associated work at Sprague Elementary School using existing architectural designs; and,

WHEREAS, the City accepted the Contractor's bid for **RFP Number 7932;** and

WHEREAS, the City desires to obtain the Contractor's services for roof replacement and associated work at Sprague Elementary School using existing architectural designs pursuant to the terms set forth in this Contract (the "Project").

NOW THEREFORE, THE PARTIES AGREE AND COVENANT AS FOLLOWS:

1. Scope of Services. The Contractor shall furnish all of the labor, services, equipment, materials, supplies, transportation, and incidentals necessary to complete the Project as specified in this agreement (also referred to herein as "Contract") and such shall be completed in a satisfactory manner, as reasonably determined by the City. All labor, services, equipment, materials, supplies, transportation, and incidentals shall comply with **(i)** any and all applicable local, state and federal laws, statutes, ordinances, rules and regulations, including without limitation all notice requirements thereunder, and **(ii)** generally accepted professional standards.

1.1. The Project consists of roof replacement and associated work at Sprague Elementary School using existing architectural designs as detailed and described in the Bid Documents in **Attachment A** and which are hereby made material provisions of this Contract. **Attachment A** shall consist of the following, which are attached hereto, are acknowledged by the Contractor as having been received, or otherwise hereby incorporated by reference as noted below, and all are made a part hereof:

1.1.1. Project plans, specifications, drawings, supplementary conditions
1.1.2. Bid Forms, including the City's Bid documents and the Contractor's responses
1.1.3. any and all amendment(s) and Change Orders, issued by the City after execution of Contract (incorporated by reference)
1.1.4. Non-Collusion Affidavit; Debarment Certificate
1.1.5. Performance Bond and Payment Bond
1.1.6. Certificates of Insurance
1.1.7. All applicable Federal, State and local statutes, regulations charter and ordinances (incorporated by reference)
1.1.8. All permits and licenses (incorporated by reference)

1.2. The entirety of **Attachment A** plus this executed instrument are together deemed the Contract Documents (hereinafter collectively referred to as "Contract Documents"). The City's record copy of the Contract Documents shall control and shall be effective and binding on the Contractor. In the event that any provision in the Contract Documents conflict with any other provision therein, the provision in the component part of the Contract Document first enumerated below shall govern over any other component part which follows it numerically.

i. Contract Amendment(s) and Change Orders
ii. Contract
iii. Contractor's Bid Form
iv. Federal, State, and local laws, regulations, charter and ordinances
v. Technical Specifications
vi. Drawings

2. Representations Regarding Qualification and Accreditation. The Contractor represents that its employees are licensed to perform the scope of work set forth in this Contract. The Contractor further represents that its employees have the requisite skill, expertise and knowledge necessary to perform the scope of work required under the terms of this Contract, including any supplementary work and the City relies upon Contractor's representations.

2.1. Representations regarding Personnel. The Contractor represents that it has, or will secure at its own expense, all personnel required to perform the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the City, unless use of City employees or of personnel having a contractual relationship with the City is approved in writing. As set forth above, all the services required hereunder shall be performed by the Contractor or under its supervision and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under state or local law to perform such services.

2.2. Representations regarding Qualifications. The Contractor hereby represents that, to the extent required by Federal, State and Local statutes, regulations, codes, ordinances, and policies, that the Consultant and/or its employees be licensed, certified, registered, or otherwise qualified, the Consultant and all employees providing services under this Contract, are in full compliance with those statutes, regulations and

ordinances. Upon City request, the Consultant shall provide to the City a copy of the Consultant's licenses, certifications, registrations, etc.

3. Responsibilities of the Contractor. The Contractor agrees to properly implement the services required in the manner herein provided. The Contractor shall, in addition to any other responsibilities set forth in this Contract and the Schedules and Attachments hereto, perform the following coincident with the performance of this Contract:

3.1. Due Diligence Obligation. The Contractor acknowledges its responsibilities to examine and to be thoroughly familiar with the City's bid document, including, but not limited to the plans, specifications, drawings and any addenda thereto. The Contractor hereby warrants and represents that prior to the submission of its proposal during the bid process it reviewed or was afforded opportunity, by the City, to review all physical items, facilities, services and functions essential to the satisfactory performance of the services required ("Due Diligence") and thereby certifies that all such items facilities, services and functions are included in this Contract and thereby warrants that:

3.1.1 it conducted or had opportunity to conduct all due diligence prior to the submission of its bid and, accordingly, any additional costs, services or products resulting from the failure of the Contractor to complete Due Diligence prior to submission of its bid proposal shall be borne by the Contractor. Furthermore, the Contractor had the opportunity during the bid process to ask questions it saw fit and to review the responses from the City;

3.1.2 its failure or omission to make investigation and verification of data shall, in no way, be cause for future claim of ignorance of such data or conditions nor shall such failure to investigate and verify be the basis for any claim whatsoever, monetary or otherwise;

3.1.3 it is solely responsible for resolving any issues resulting from its failure to conduct due diligence and it shall assume any and all resulting costs it incurs during the Project;

3.1.4 it was responsible for specifying any changes and disclosing any associated new costs prior to submittal of its bid. In the event the Contractor failed to disclose any such new cost prior to the submittal of its bid, the Contractor hereby covenants that it shall remain solely responsible for, and shall absorb, those non-disclosed costs;

3.1.5 it has familiarized itself with the nature and extent of the Contract Documents, Project, locality, and with all local conditions and Federal, State and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Project;

3.1.6 it has given the City written notice of any conflict, error or discrepancy that the Contractor discovered in the City's bid documents and other documents for **RFP Number 7932** (collectively "Bid Documents");

3.1.7. it agrees that the Bid Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Project;

3.1.8. it has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Scope of Services which were utilized in the preparation of the plans and specifications;

3.1.9 it has made or caused to be made examinations, investigations, measurements and tests and studies of any applicable reports and related data as it deems necessary for ensuring performance of the Scope of Services at the Contract Price within the Contract Time and in accordance with the other terms and conditions of the Contracts; and certifies no additional examinations, investigations, tests, reports or similar data are or will be required by Contractor for such purposes; and

3.1.10 The Contractor shall not take advantage of any obvious error or apparent discrepancy in the Contract. Notice of any error or discrepancy discovered shall be given immediately in writing to the City, who shall make such corrections and interpretations as it may deem necessary for the completion of the Project in a satisfactory and acceptable manner.

3.2. Safety. Contractor shall perform all work in a safe manner in full compliance with local, state and federal health and safety regulations. Contractor shall immediately correct any dangerous condition caused by or resulting from its work. If it fails to correct, or to act diligently to correct, any condition which the City reasonably believes to be a hazard to persons or property, then immediately upon oral or written notice to any supervisory or similar personnel of Contractor, City may, but shall not be required to, correct same at Contractor's expense. City shall confirm to Contractor in writing any oral notice given within five (5) business days thereafter.

3.3. Storage. In the event the Project site has insufficient, inadequate, and/or improper storage space, it shall be the responsibility of the Contractor to secure, provide and maintain at the Contractor's sole cost and expense **(i)** adequate off-site storage space for equipment, materials, incidentals, etc., and **(ii)** all associated delivery and transportation services. In either event, the Contractor shall assume full responsibility for equipment, materials, incidentals, etc. until both title and risk of loss pass to the City pursuant to Section 8 of this Contract.

3.4. Working Hours. To the extent the Contractor is required to be on City property to render the Contractor's services hereunder, the Contractor shall coordinate its schedule so that work on and at the Project site is performed during the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturday, Sunday and legal holidays unless more exactly specified elsewhere in this Contract or **Attachment A** or unless prior written permission is obtained from the City to work during other times. This provision shall not excuse the Contractor from timely performance under the Contract.

3.5. Cleaning Up. The Contractor shall at all times keep the Project site free from accumulation of waste materials or rubbish caused by Contractor's employees or subcontractors, and at the completion of the work shall remove all rubbish from and about the Project and all tools, scaffolding and surplus materials and shall leave the Project site "broom clean" or its equivalent, unless more exactly specified. In case of dispute, the City may remove the rubbish and charge the cost to the Contractor.

3.6. Publicity. Contractor agrees not to deliberately disclose the fact that the City has entered into or terminated this Contract or disclose any of the terms of the Contract or use the City's name in connection with any publicity, unless the City gives prior written consent to such use of the City's name in each instance.

3.7. Standard of Performance. All Contractor labor, materials, supplies, components, equipment, reports, plans, specifications, drawings, deliverables, incidentals, etc., required to be furnished or delivered under this Contract shall conform in all respects with the requirements set forth in this Contract and shall meet or exceed those standards generally recognized in the Contractor's craft and trade in the State of Connecticut. City specified manufacturer and/or brand name substitution desired by the Contractor shall be made only with the prior written consent of an authorized representative of the City's Using Agency.

3.7.1 In carrying out the Project, the Contractor must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor, nor with the normal routine of the institution or agency operating at the Project site.

3.8. Contractor's Employees. The Contractor shall at all times enforce strict discipline and good order among its employees, and shall not employ on the work any unfit person or anyone not skilled in the work assigned. The Contractor shall not, without the prior written approval of the City's Using Agency, substitute, terminate, replace or otherwise remove any Contractor employee expressly named, identified or required in this Contract.

3.9. Subsurface/Unknown Site Conditions. If Project site conditions are encountered which are **(i)** subsurface or otherwise concealed physical conditions or other conditions which differ materially from those indicated in the Contract Documents, or **(ii)** unknown conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent or common in construction activities of the character provided for in this Contract, then prompt notice by the observing party shall be given to the other party to this Contract before Project site conditions may be disturbed. The Contractor shall thereafter wait for written instructions from the City before proceeding with regard to such conditions.

3.10. Surveys. All surveys required under this Contract shall be performed by a State of Connecticut duly licensed land surveyor. Unless expressly stated to the contrary in Section 1 of this Contract and **Attachment A**, the Contractor shall perform all layout work, all field measurements and all construction staking required, necessary or

prudent for the satisfactory prosecution of the Contractor's obligations under this Contract.

3.11. Permits and Licenses. Unless expressly stated to the contrary in Section 1 of this Contract and **Attachment A**, the Contractor shall secure and obtain all permits and all licenses required, or necessary, or prudent for the performance of the Contractor's obligations under this Contract, and for the City's occupancy, use, and operation of the Project.

3.12. Manufacturer's Directions. Where it is required in this Contract that materials, products, processes, equipment or the like be installed or applied in accord with manufacturer's directions, specifications or instructions, it shall be construed to mean that the said application or installation by the Contractor shall be in strict accord with printed instructions furnished by the manufacturer of the material concerned for use under conditions similar to those at the Project site. One (1) copy of such instructions shall be furnished to the City.

3.13. Review by the City. The Contractor shall permit the City and the City's duly authorized representatives and agents to review, at any time, all work performed under the terms of this Contract at any stage of the Project.

3.14. Records Maintenance. The Contractor shall maintain or cause to be maintained all records, books or other documents relative to charges, costs, expenses, fees, alleged breaches of the Contract, settlement of claims or any other matter pertaining to the Contractor's demand for payment.

4. Responsibilities of the City and City Reservation of Rights. Upon the City's receipt of Contractor's written request for specific information, the City will provide the Contractor with existing documents, data and other materials the City agrees are necessary and appropriate to the services to be performed by the Contractor hereunder and the City will endeavor to secure, where feasible and where the City agrees it is necessary and appropriate, materials or information from other sources requested by the Contractor for the purpose of carrying out the services under this Contract.

4.1. The City may, in its sole discretion, designate person(s) to act as the City's Project Engineer(s) and/or Manager(s) and the City may, in its sole discretion, define such person(s) authority and responsibilities.

4.2. The City reserves the right to **(i)** perform work related or unrelated to the Project with the City's own forces adjoining, adjacent to, or in the vicinity of, the Project site and/or **(ii)** let separate contracts related or unrelated to the Project for work and services adjoining, adjacent to, or in the vicinity of, the Project site. In such event, the Contractor shall afford all such parties reasonable opportunity for storage of materials and equipment and for the uninterrupted provision and delivery of such parties' work and/or services. The Contractor shall cooperate with such parties and in the case of a dispute, the decision of the City shall be complied with by all.

5. Contract Time. Contract Time. The Contractor shall Substantially Complete all work and services required under this Contract within **seventy five (75) consecutive calendar days** of the City's written Notice to Proceed and shall reach Final Completion within **one hundred twenty (120) consecutive calendar days** of the City's written Notice to Proceed ("Contract Time").

5.1. Within one (1) week of the City's issuance of its written notice to proceed, and prior to the commencement of any work on the Project site, the Contractor shall submit for the City's written approval a construction progress schedule. On a monthly basis, the Contractor shall deliver to the City a written status report setting forth an analysis and critique of the Contractor's compliance with said schedule.

5.2. Delay Damages

5.2.1 Time is and shall be of the essence for all Project Phase Completion Dates, Milestones, Substantial and Final Completion Date. The Contractor further agrees that the Project shall be prosecuted regularly, diligently and uninterruptedly and at such rate of progress as will insure full completion thereof within the Contract time stated above. It is expressly understood and agreed, by and between the Contractor and City, that the Phase Completion Dates, Milestones, Substantial and Final Completion Date are reasonable for the completion of the Project.

5.2.1.1 The Contractor shall pay to the City the sum of Five Hundred Dollars ($500.00) per calendar day for each and every calendar day for which the Contractor is in default in completing the work beyond the Final Completion Date, Substantial Completion Date, Milestones and Phase Completion Dates, as set forth in Section 5, or the actual damages incurred by the City caused by the delay. The preceding sum is hereby agreed upon not as a penalty, but as delay damages for the delay that the City shall suffer due to such default.

5.2.1.2 The City shall have the right to recover all damages pursuant to any remedy at law or equity including but not limited to deducting the amount of any such damages from any monies due the Contractor under this Contract. The Contractor understands that if the entire Work or of any portion of the Work that the City has agreed to accept separately, if any, is not attained by the applicable completion dates as set forth in the entire Section 5, the City will suffer damages, which are difficult to specify accurately and ascertain. Delay damages based upon delay shall be assessed to compensate the City for all actual loss sustained by the delay, including, but not limited to, loss of use, increased cost of material or services to complete the project, loss of State funding, all other another actual expense, and all other damages allowed by law, including attorney's fees.

5.3 No Damage for Delay

In no event shall the Contractor be entitled to any compensation or recovery of any damages in connection with any Delay, including, without limitation, consequential damages, lost opportunity damages, attorney's fees or other, similar remuneration. The City's exercise of any of its rights or remedies under the Contract Documents, including without limitation, ordering changes in the Work, or directing suspension, rescheduling or correction of the Work, regardless of the extent or frequency of the City's exercise of these rights has been contemplated by the parties and shall not be construed as an exception.

6. Compensation. The City shall compensate the Contractor for satisfactory provision of all of the goods and services set forth in this Contract as follows in this Section 6. No claims for additional compensation will be considered for conditions made known to the Contractor prior to bidding. No claims for additional compensation will be considered on account of failure of the Contractor to completely inform itself as required herein above.

6.1. Fee Schedule. Subject to retainage, limitations, etc. set forth below in this Section 6, the fee payable to the Contractor shall not exceed **Eight Hundred Sixty-Four Thousand Dollars ($864,000.00)** (hereafter referred to as "Total Compensation") with the basis for payment being Contractor's Bid set forth in **Attachment A's** "Revised Price Proposal, dated March 6, 2024."

6.1.1 Base Bid …….$ 824,000
Owner Contingency Allowance …..…….…….$ 40,000
TOTAL ……...…..……$ 864,000

6.2. Retainage. At the City's sole discretion, it hereby reserves the right to withhold as retainage 5% percent of any payment (or monetary sum otherwise required by law) owed to the Contractor to be withheld from payments to the Contractor otherwise payable to the Contractor until such time as the Contractor's work and services to be provided under this Contact are fully completed and accepted in writing by the City. The retainage does not does not include additional sums that the City may withhold due to the Contractor's failure to comply with provisions of this Contract.

6.3. Limitation of Payment. Compensation to the Contractor is limited to those fees set forth in Section 6.1. of this Contract and is further limited to work **(i)** performed in fact, **(ii)** conforming with this Contract, and **(iii)** accepted in writing by a duly authorized City employee. Such compensation shall be paid by the City upon its review and approval of the Contractor's invoices for payment and review of the Contractor's work.

6.3.1 Funding. In the event this Contract is funded, in whole or in part, by Federal and/or State monies, grants, loans, etc, all City payment(s) shall fully

comply with all relevant Federal and State statutes and regulations. In the event this Contract is 100% funded by Federal and/or State monies, grants, loans, etc., the aggregate sum of all City payments shall not exceed the aggregate sum of such funding.

This Contract pertains to a project funded in whole or in part, by monies received by the City through the State of Connecticut, Department of Administrative Services (DAS), Office of School Construction Grants and Review (OSCG&R).

Contractor is required to comply with all applicable Federal statutes, executive orders, regulations, rules and interpretive guidance issued by the U.S. Treasury Department, U.S. Office of Management and Budget or any other Federal agency.

This Contract is subject to 2 C.F.R. Part 180 OMB Guidelines to Agencies on Government Debarment and Suspension and the U.S. Treasury's implementing regulations set forth at 31 C.F.R. Part 19 Government Debarment and Suspension.

A listing of Federal Requirements and Representations that Contractor must comply with are set forth in Attachment A to this Contract.

6.3.2 The Contractor and its affiliates are hereby provided with notice that the City reserves the right, in the City's sole discretion, to offset, withhold, or otherwise reduce City payment(s) to the Contractor, in an amount equaling the sum or sums of money the Contractor and/or its affiliates is/are, or become delinquent or in arrears on, regarding the Vendor's and/or its affiliates real and personal property taxes and other payment obligations to the City.

6.4. Bid Costs. All costs of the Contractor in preparing its bid for **RFP Number 7932** shall be solely borne by the Contractor and are not included in the compensation to be paid by the City to the Contractor under this Contract or any other agreement.

6.5. Payment for Services, Materials, Appliances, Employees. The Contractor shall be responsible to the City for the suitability of services, materials and equipment furnished to comply fully with the requirements set forth in this Contract. The Contractor shall promptly pay all employees as their pay falls due, shall pay promptly as they fall due all bills for subcontractors, materials, supplies and services going into the work, and all bills for insurance, bonds, Worker's Compensation coverage, Federal and State Unemployment Compensation, and Social Security charges applicable to this Project. Before final City payment is made, the Contractor shall furnish to the City a sworn, notarized, affidavit stating that all of the foregoing payment obligations have been fully completed.

6.6. Liens. Neither the City's final payment nor any part of the retained percentage, if any, shall become due until the Contractor, if required by the City, shall deliver to

the City a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof, and, if required, in either case, an affidavit that so far as the Contractor has knowledge or information, the releases and receipts include all the labor and material for which a lien could be filed; but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the City, to indemnify it against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the City all moneys that the City may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

6.7. Contractor's Certificate of Completion. Upon the Contractor's **(i)** completion of all Project milestones, and **(ii)** Substantial Completion of the Project, and **(iii)** Final Completion of the Project, the Contractor shall, in each instance, file with the City a written, notarized affidavit setting forth the amount of Project work performed. The City reserves the right to verify or challenge by any reasonable means the accuracy of said affidavit.

6.8. Final Payment. All prior estimates and City payments, including those relating to extra or additional work, retainage(s), and holdback(s), shall be subject to correction by this final payment which is throughout this Contract called "Final Payment". No payment, final or partial, shall act as a release to the Contractor or its surety from any Contractor obligation(s) under this Contract.

6.9. Clean Water Fund Project Requirements. In the event this Contract is funded in whole or in part, is reliant upon, or falls within the jurisdiction of the Clean Water Fund and its statutes, regulations and rules, the Contractor shall:

6.9.1 submit Applications for Payment in accordance with the following:

The City must receive the Contractor's Application for Payment by the City's or its designee's, review and recommendation for payment, by the fifteenth calendar day of the month to receive payment within the next 50 days. If not received by the fifteenth calendar day of the month, payment can not be made until 50 days after the fifteenth calendar day of the subsequent month. The Contractor shall provide at the City's request, reasonable documentation to substantiate Contractor's Application for Payment.

6.9.2 Progress and Final Payments

The City will make progress payments on account of the Contract Price on the basis of the Contractor's Applications for Payment, monthly during construction as provided below. All progress payments will be on the basis of the progress of the Scope of Services as determined by the City, according to the schedule of values provided for in the Contract Documents, and approved by the City. Prior to Substantial Completion, progress payments will be limited to an amount equal to 95 percent of the value of the Scope of Services completed. Upon Substantial Completion, the City will pay the amount as specified in the Contract Documents.

7. Warranty of the Contractor. The Contractor warrants to the City that all materials, supplies, components, equipment, etc. furnished under this Contract shall be new and of good quality, except as otherwise expressly stated and permitted by the City elsewhere in this Contract. The Contractor warrants that none of its work shall be defective. The Contractor shall be liable to repair and install and/or replace without charge any service, component, equipment or part thereof which is defective or does not conform with this Contract within the greater of **(i)** 730 calendar days after the City delivers its written notice of its acceptance of the Project and statement therein establishing the final completion date, or **(ii)** that time period or date expressly stated elsewhere in this Contract or **Attachment A**. The City shall also receive the full benefit of the Manufacturing Warranty included in Attachment A hereto.

7.1. The Contractor further warrants that all materials, supplies, services, components, equipment, reports, plans, drawings, deliverables, incidentals, etc., shall be free from any and all defects caused by faulty design, faulty material or poor workmanship. The Contractor shall supply to the City copies of any written manufacturer's warranties and guarantees. The Contractor's foregoing warranty obligations are in addition to, and not a limitation of, all manufacturer's warranties and guarantees, and any other remedy stated in this contract or otherwise available to the City under applicable law.

8. Passing of Title and Risk of Loss.

8.1. City beneficial use of Project equipment, materials, site-work, etc. prior to the Contractor's final completion of the Project or prior to the City's final payment for the Project shall neither act to vest title in the City nor act to transfer risk of loss from the Contractor to the City. Said title and risk shall pass to the City upon the City's final payment for the Project.

8.2. Contractor and its insurer shall assume the risks of loss or damage to the equipment up to and including the date title passes, except that City shall be responsible for loss or damage caused by City's gross negligence.

8.3. After Project equipment, materials, etc. are delivered to the Project work-site and become operable or functional, the Contractor shall not thereafter remove any such equipment, materials, etc. from the Project work-site without securing the prior written consent of an authorized City Using Agency employee.

9. Indemnification.

9.1. The Contractor shall indemnify, defend, and hold harmless the City, City's Boards, and Board of Education, commissions, agents, officials and employees from and against all claims, suits, damages, losses, judgments, costs and expenses including attorney's fees arising out of or resulting from the delivery of the labor, services, equipment, materials, reports, plans, specifications, design, drawings, deliverables, incidentals, etc. provided that any such claims, suits, damages, losses, judgments, costs or expenses **(i)** are attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including the loss of use resulting there from, **(ii)** are alleged to be caused in whole or in part by any willful, intentional, negligent, or

reckless act or omission of the Contractor, its employees, any subcontractor or consultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder; **(iii)** enforcement action or any claim for breach of the Contractor ’s duties hereunder or **(iv)** claim for intangible loss(es) including but not limited to business losses, lost profits or revenue, regardless of whether or not it is caused in part by a party indemnified hereunder.

9.2. In any and all claims against the City, Board of Education or any of City’s boards, agents, employees or officers by the Contractor or any employee of the Contractor , any subcontractor or consultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 9 above, shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under Worker's Compensation Acts, disability benefit acts or other employee benefit acts.

9**.3**. The Contractor understands and agrees that any insurance required by this Contract, or otherwise provided by the Contractor , shall in no way limit the responsibility to indemnify, defend, keep and hold harmless the City, the Board of Education, any of City’s boards, agents, employees as provided in this Contract.

9.4. The Contractor expressly understands and agrees that any performance bond or insurance protection required by this Contract, or otherwise provided by the Contractor, shall in no way limit the responsibility to indemnify, keep and save harmless and defend the City and the City’s boards, agents, employees or officers as provided herein.

9.5. Royalties and Patents. The Contractor shall, for all time, secure to the City the free and undisputed right to the use of any and all patented articles and methods used in the work and shall defend at Contractor's own expense any and all suits for infringement or alleged infringement of such patents, and in the event of adverse award under patent suits, the Contractor shall pay such awards and hold the City harmless in connection with any patent suits that may arise as a result of installations made by the Contractor and as to any award made thereunder.

9.6. In the event this Contract and/or the Contractor's, or its subcontractor, work and services provisioned hereunder is/are subject to the provisions of any Federal or State statute or regulations, or the City Charter or City Ordinance, the Contractor shall indemnify, defend and hold harmless the City from any fine, penalty or other amounts imposed on the City under said statutes, regulations, Charter or Ordinances, if caused by Contractor, or its subcontractor, omission or commission.

10. Contract Bonds. The Contractor shall furnish to the City, prior to the execution of this Contract by the City, both a performance bond and a payment bond, each bond written for a penal sum equaling the Section 6 "Total Compensation" amount in a form and with a surety acceptable to the City. The bonds shall continue in effect for the greater of **(i)** the warranty

period set forth in Section 7 of this Contract, or **(ii)** 365 calendar days after the Final Completion Date referenced elsewhere in this Contract.

11. Contractor's Insurance.

11.1. The Contractor shall not commence work under this Contract until all insurance required under this Section 11 has been obtained by the Contractor and such insurance has been approved by the City. The Contractor shall not allow any subcontractor to commence work on any subcontract until all insurance required of any such subcontractor has been so obtained and approved by the City. Insurance shall be provided by insurers, satisfactory to the City and authorized to do business in the State of Connecticut, an "A-" Best's Rating and at least a Class V3 or better financial size category as shown in the most current A.M. Best Company ratings.

11.2. At no additional cost to the City, the Contractor shall purchase and maintain the insurance coverages set forth below which shall protect the City from claims which may arise out of or result from the Contractor's obligation under this Contract, whether such obligations are the Contractor's or subcontractor or person or entity directly or indirectly employed by said Contractor or subcontractor, or by any person or entity for whose acts said Contractor or subcontractor may be liable.

11.3. Each insurance policy shall state that the insurance company shall agree to investigate and defend the insured against all claims for damages, even if groundless. If any insurance required herein is to be issued or renewed on a claims made form as opposed to an occurrence form, the retroactive date for coverage shall be no later than the commencement date of this Contract and shall provide that in the event of cancellation or non-renewal, the discovery period for insurance claims ("Tail Coverage") shall be available for at least 60 months.

11.4. The following policies with stated limits shall be maintained, in full force and effect, at all times during which the services are to be performed by the Contractor:

11.4.1 General Liability Insurance: $1,000,000.00 per occurrence, **$2,000,000.00** aggregate and **$2,000,000.00** Products and completed operations aggregate
Providing coverage to protect the City for all damages arising out of bodily injuries, sickness to or death of all persons in any one accident or occurrence and for all damages arising out of destruction of property in any one accident or occurrence.

11.4.2 Automobile Liability Insurance: **$1,000,000.00** combined single limit (CSL) each Accident
Providing coverage to protect the City with respect to claims for damage for bodily injury and or property damage arising out of ownership, maintenance, operation, use or loading and unloading of any auto including hired & non-owned autos.

11.4.3 Workers' Compensation: Statutory Limits within the State of Connecticut: Employers' Liability:
EL Each Accident **$1,000,000.00**
EL Disease Each Employee **$1,000,000.00**
EL Disease Policy Limit **$1,000,000.00**

Contractor shall comply with all State of Connecticut statutes as it relates to workers' compensation.

11.4.4 Excess/Umbrella Liability Insurance: Excess or Umbrella insurance coverage that follows form or sits over General Liability, Automobile Liability and Workers Compensation insurances**. $10,000,000.00** each occurrence and **$10,000,000.00** Aggregate.

11.5. Failure to Maintain Insurance: In the event the Contractor fails to maintain the minimum required coverage as set forth herein, the City may at its option purchase same, and offset the Contractor's invoices for the cost of said insurance.

11.6. Cancellation: The City of Waterbury shall receive written notice of cancellation from the Contractor at least thirty (30) calendar days prior to the date of actual cancellation, regardless of the reason for such cancellation.

11.7. Certificates of Insurance: The Contractor's General, Automobile, Builder's Risk and Excess/Umbrella Liability Insurance policies shall be endorsed to add the City and Board of Education as an additional insured and provide waiver of subrogation on all policies. The insurance afforded the additional insured shall be primary and non-contributory insurance and the coverage and limits provided under the Contractor's policies shall not be reduced or prorated by the existence of any other insurance applicable to any loss the additional insured may have suffered. Prior to the execution of this Contract by the City, the Contractor shall furnish to the City, subject to City approval, certificate(s) of insurance and Additional Insured Endorsement and Waiver of Subrogation Endorsement verifying the above coverages, including the naming of the City of Waterbury, as follows: **"The City of Waterbury and Board of Education are listed as additional insured on a primary and non-contributory basis on all lines of coverage except Workers Compensation. All polices shall include a Waiver of Subrogation."** The City's Invitation to Bid Number must be shown on the certificate of insurance to assure correct filing. The Contractor must supply replacement/renewal certificates at least 30 days prior to the expiration of the policy(ies). Said certificates shall contain a provision that coverage afforded under the policies shall not be cancelled or reduced for any reasons unless notice of than thirty (30) calendar days has been mailed to the City's Using Agency and a copy to the City's Office of Corporation Counsel, 235 Grand Street, Waterbury, CT 06702.

11.8. No later than thirty (30) calendar days after Contractor receipt, the Contractor shall deliver to the City a copy of the Contractor's insurance policies and endorsements and riders.

12. Conformance with Federal, State and Other Jurisdictional Requirements. By executing this Contract, the Contractor represents and warrants that, at all pertinent and relevant times to the Contract, it has been, is and will continue to be in full compliance with all applicable statutes, acts, ordinances, guidelines, resolutions, orders, judgments, decrees, injunctions, rules, and regulations of all government authorities applicable to performance by the Contractor of services hereunder, including those having jurisdiction over its registration and licensing to perform services hereunder; including, but not limited to, the following: EQUAL EMPLOYMENT OPPORTUNUTY; COPELAND ANTI-KICKBACK ACT, as supplemented in the Department of Labor Regulations (29 CFR, Part 3); DAVIS BACON ACT as supplemented by Department of Labor Regulations (29 CFR Part 5); Section 103 and 107 of the Contract Work Hours and Safety Standards Act, as supplemented by the Department of Labor Regulations (29 CFR Part 5); the HOUSING and COMMUNITY DEVELOPMENT ACT of 1974, as amended; TITLE 31 and Section 12-430(7) of the State of Connecticut General Statutes. All applicable sections of the City Charter and Code of Ordinances are incorporated by reference made a part hereof.

12.1. Taxes-Federal, State and Local. The City is exempt from Federal Excise and Transportation, State and Local Sales and Use Taxes, including without limitation, taxes that would otherwise be imposed upon the Contractor for transactions required or necessitated hereunder between it and its subcontractors, suppliers, etc. The Contractor remains liable, however, for any applicable tax obligations it incurs. Moreover, the Contractor represents that the bid and pricing contained in this Contract do not include the amount payable for said taxes.

12.2. Labor and Wages-Federal and State. The Contractor and its subcontractors shall conform to Federal and State of Connecticut labor laws, and all other laws, ordinances, and legal requirements affecting the work in Connecticut.

12.2.1 The Contractor is aware of, and shall comply with, the provisions of Title 31, §53 of the Connecticut General Statutes, latest revision (the "Act"), concerning the payment of minimum wages for work on public facilities. The provisions of the Act are hereby incorporated by reference and made a part of this Contract. The Act provides that the Connecticut prevailing wage law applies to certain remodeling, refurbishing, alteration, repair and new construction. The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in Conn.Gen.Statute 31-53(i), shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each pay day.

12.2.2 The Contractor is aware of, and shall comply with, the provisions of the Federal Davis-Bacon Act, the American Rescue Plan Act of 2021 (ARPA) and the Federal American Recovery and Reinvestment Act of 2009, the provisions of all acts hereby incorporated by reference and made a part of this Contract. The Federal Davis-Bacon Act provides that Federal wage rate laws apply to certain federally funded contracts. The American Recovery and Reinvestment Act ("ARRA") and the American Rescue Plan Act of 2021 provides that Federal wage rate laws apply to all such funded contracts regardless of the contract's dollar value.

12.3. Compliance with Chapters 34, 38, and 39 of the Code of Ordinances of the City. By executing this Contract, the Contractor represents and warrants that, at all pertinent and relevant times to the Contract, it has been, is and will continue to be in full compliance with the provisions of Chapters 34, 38, and 39 of the Code of Ordinances of the City and well as any other relevant provisions of the Charter and the Code of Ordinances.

12.4. Compliance with CONN. GEN. STAT. § 4a-60g, as amended by June 2015 Special Session Public Act 15-5.

12.4.1 Definitions – For purposes of this paragraph:

i. "Small contractor" means any contractor, subcontractor, manufacturer, service company or nonprofit corporation (A) that maintains its principal place of business in the state, (B) that had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year prior to such application, and (C) that is independent. "Small contractor" does not include any person who is affiliated with another person if both persons considered together have a gross revenue exceeding fifteen million dollars.

ii. "Minority business enterprise" means any small contractor (A) fifty-one per cent or more of the capital stock, if any, or assets of which are owned by a person or persons who (i) exercise operational authority over the daily affairs of the enterprise, (ii) have the power to direct the management and policies and receive the beneficial interest of the enterprise, (iii) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, and (iv) are members of a minority, as such term is defined in subsection (a) of section 32-9n, or are individuals with a disability, or (B) which is a nonprofit corporation in which fifty-one per cent or more of the persons who (i) exercise operational authority over the enterprise, (ii) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, (iii) have the power to direct the management and policies of the enterprise, and (iv) are members of a minority, as defined in this subsection, or are individuals with a disability.

iii. "Municipal public works contract" means that portion of an agreement entered into on or after October 1, 2015, between any individual, Contractor or corporation and a municipality for the construction,

rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees but excluding any project of an alliance district, as defined in section 10-262u, as amended by this act, financed by state funding in an amount equal to fifty thousand dollars or less.

12.4.2 The Contractor and subcontractor shall comply with the specific requirements of the State of Connecticut Set Aside Program, CONN. GEN. STAT. § 4a-60g, as amended by June 2015 Special Session Public Act 15-5, if the municipal public works contact awarded to the Contactor is funded in whole or in part by state funds.

13. Discriminatory Practices. In performing this Contract, the Contractor shall not discriminate against any employee or applicant for employment, with respect to his or her hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, sex, age, religious creed, disability, national origin or ancestry, marital status, family status, prior psychiatric treatment, health care, military status or source of income or because of a handicap that is unrelated to the employee's or the applicant's ability to perform the duties of a particular job or position. Subcontracts with each subcontractor shall contain a provision requiring non-discrimination in employment as herein specified. This covenant is required pursuant to §93.04 of the Code of Ordinances of the City and any breach thereof may be regarded as a material breach of this Contract. Said provisions with subcontractors shall require conformity and compliance with all local, state and federal laws, rules and regulations and Executive orders pertaining to discrimination and equal opportunity requirements.

13.1. Discrimination Because of Certain Labor Matters. No person employed on the work covered by this Contract shall be discharged or in any way discriminated against because such person has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or related to the labor standards applicable hereunder to its employer.

13.2. Equal Opportunity. In its execution of the performance of this Contract, the Contractor shall not discriminate and shall comply with applicable laws prohibiting discrimination on the grounds of race, color, religion, sex, national origin or citizenship status, age or handicap. The Contractor agrees to comply with all local, state and federal laws, rules and regulations and Executive orders pertaining to discrimination and equal opportunity requirements, and will require the same of all subcontractors

13.3. Contractor Affirmative Action.

13.3.1. Pursuant to CONN. GEN. STAT. § 4a-60, as amended by June 2015 Special Session Public Act 15-5, the following are required for every Municipal Public Works Contract:

(a) Every contract to which an awarding agency is a party, every quasi-public agency project contract and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut; and the contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved;

(2) The contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission on Human Rights and Opportunities;

(3) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(4) The contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, as amended by this act, 46a-68e, 46a-68f and 46a-86; and

(5) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and section 46a-56, as amended by this act.

(b) If the contract is a public works contract, municipal public works contract or contract for a quasi-public agency project, the contractor agrees and warrants that he or she will make good faith efforts to employ minority business enterprises as

subcontractors and suppliers of materials on such public works or quasi-public agency project.

13.3.2. Pursuant to CONN. GEN. STAT. § 4a-60a, as amended by June 2015 Special Session Public Act 15-5, the following are required for every Municipal Public Works Contract:

(a) Every contract to which an awarding agency is a party, every contract for a quasi-public agency project and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or of the state of Connecticut, and that employees are treated when employed without regard to their sexual orientation;

(2) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(3) The contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said commission pursuant to section 46a-56; and

(4) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor which relate to the provisions of this section and section 46a-56.

14. Good Jobs Ordinance

14.1. Conformance With An Ordinance Concerning The Hiring Of Waterbury Residents On Certain Publicly-Funded Construction Projects.

14.1.1 The Contractors and its Subcontractors shall comply with the specific requirements of “An Ordinance Concerning the Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects” (the “Good Jobs Ordinance”), as may be amended from time to time and as set forth in Chapter 34 of the Code of Ordinances of the City. While the principal provisions of the

ordinance are summarized as set forth in paragraphs C-H below, the Contractor does hereby acknowledge that it has reviewed a copy of the Good Jobs Ordinance and that it has read the Ordinance and that Contractor is familiar with the obligations imposed on the Contractor and each Subcontractor by the Good Jobs Ordinance.

14.1.2 Failure of the Contractor or its Subcontractors to comply with the Good Jobs Ordinance shall be a material breach of this Agreement.

14.1.3 This paragraph shall apply to a Covered Project, as that term is defined in the Good Jobs Ordinance, in the City with a value of $500,000.00 or greater and only to the extent permitted by federal and state law.

14.1.4 Definitions. For purposes of this paragraph:

i. "Administrator" shall be defined as it is in the Good Jobs Ordinance.

ii. "Apprentice" shall be defined as it is in the Good Jobs Ordinance.

iii. "Basic Skilled Worker" shall be defined as it is in the Good Jobs Ordinance.

iv. "Contractor" shall be defined as it is in the Good Jobs Ordinance.

v. "Covered Project" shall be defined as it is in the Good Jobs Ordinance.

vi. "Hiring Goal" shall be defined as it is in the Good Jobs Ordinance.

vii. "Resident" shall be defined as it is in the Good Jobs Ordinance.

viii. "Subcontractor" shall be defined as it is in the Good Jobs Ordinance and shall include the Contractor's direct subcontractor providing construction work and all lower tiered (level) providers of construction work.

14.1.5 Hiring Goals. If this Agreement requires the Contractor to perform work on a Covered Project, the Contractor and each Subcontractor shall have as its hiring goals:

i. at least thirty percent (30%) of its total worker hours performed by City Residents, and

ii. at least twenty-five percent (25%) of construction trade jobs

shall go to Apprentices and/or Basic Skilled Workers, and

iii. at least seventy percent (70%) of all "new hires" (as that term is defined in the Good Jobs Ordinance) shall be "economically disadvantaged" individuals (as that term is defined in the Good Jobs Ordinance), and

iv. a minimum of five percent (5%) of the construction workforce labor hours will be local resident, minority artisans, and

v. a minimum of five percent (5%) of the construction workforce labor hours will be women, and

vi. a minimum of ten percent (10%) of the total work hours shall be allocated for minorities, or

vii. as may otherwise be required by any superseding Federal or State employment discrimination prohibition laws.

14.1.6 Good Faith Efforts. The Contractor and each Subcontractor shall engage in Good Faith Efforts to comply with the Hiring Goals. For the purposes of this paragraph, the term “Good Faith Efforts” shall have the same meaning as it does in the Good Jobs Ordinance.

The Contractor and each Subcontractor shall individually implement Good Faith efforts to satisfy the Hiring Goals.

14.1.7 Action Plan and Pre-Construction Meeting. Not later than fourteen (14) business days prior to the scheduled commencement date for construction, the Contractor shall submit a written plan-of-action to the City and to the Administrator of the Good Jobs Ordinance defining how the Contractor, and each Subcontractor, shall implement Good Faith Efforts to fulfill the Hiring Goals. Each plan-of-action shall include the anticipated number of job positions required for the Work. Not later than five (5) business day prior to the commencement date of construction, the Contractor must attend a mandatory "pre-construction" meeting with the City to review all plans-of-action and other relevant materials. No construction work shall proceed absent this pre-construction meeting.

14.1.8 Other Contractor Obligations. In addition to the foregoing, the Contractor shall ensure that all Subcontractor contracts and agreements expressly set forth and state as binding obligations therein, subject to appropriate party name change, the above Hiring Goals and Good Faith Efforts. The Contractor shall be accountable for, and liable to the City for, Contractor and each Subcontractor compliance with Hiring Goals and Good Faith efforts.

i. The Contractor shall meet with the Administrator no less than four (4) weeks prior to the commencement of construction on a Covered

Project and provide the Administrator with the number of job positions to be created by the project by trade and the qualifications by job tile.

ii. The Contractor shall be required to produce Contractor and Subcontractor documentation that may be required under the provisions of the Good Jobs Ordinance or that the City or the Administrator reasonably believes will assist the City or the Administrator with their evaluation of Hiring Goals and Good Faith Efforts.

iii. The Contractor shall deliver weekly certified payroll records to the City within five (5) working days of the end of each payroll period. Moreover, the Contractor shall require each Subcontractor to create weekly certified payroll records.

iv. The Contractor's and each Subcontractor's payroll records shall include the person-hours, the residential address, race, gender, hiring date, and apprentice (job) classification of all personnel employed under this Agreement and all Contracts and Sub-Contracts thereunder. The Contractor and each Subcontractor shall mark their respective final payroll period records as being final and be signed by an authorized officer or employee.

14.2 Liquidated Damages Applicable To Section 14.1

14.2.1 If the City finds that the Contractor, or a Subcontractor, has failed to achieve Hiring Goals during any five (5) day work period (Monday through Friday), the City shall:

i. issue a written notice to the Contractor specifying the matters constituting such failure and the time period within which Good Faith Efforts documentation must be delivered to the City for its evaluation.

ii. if the Good Faith documentation is not provided or, if provided, it fails to demonstrate compliance with Good Faith Efforts, the Contractor shall, for each failure by the Contractor or a Subcontractor to achieve the Hiring Goals during a full five day work period, pay to the City one thousand dollars ($1,000.00) as liquidated damages.

14.2.2 If the City finds that the Contractor, or a Subcontractor, has failed to deliver weekly certified payroll records to the City within five (5) working days of the end of each payroll period the Contractor shall, as liquidated damages pay one thousand dollars ($1,000.00) to the City for each week of ongoing violation.

14.2.3 The City shall provide the Contractor with an invoice identifying all sums due the City, as liquidated damages, as a result of the Contractor or a Subcontractor's failure to comply with the Good Jobs Ordinance as set forth above.

14.2.4 No portion of any invoice submitted by a Contractor that is subject to liquidated damages shall be paid by the City until such time as all liquidated damages relating to that invoice have been paid to the City.

14.2.5 The foregoing liquidated damages provisions shall be expressly set forth, subject to appropriate party name adjustments, as material provisions in all Contracts that the Contractor has with Subcontractors and the Contractor is obligated hereunder to enforce compliance in such Contracts with Subcontractors.

14.2.6 Any payment of liquidated damages hereunder shall not preclude a later claim, nor any later finding of a breach, or any payment of additional damages related to such later claim.

15. Housing and Urban Development Section 3 Clause. In the event this Contract is funded, in whole or in part, through Housing and Urban Development assistance, 24 C.F.R. §135.38 may apply and the Contractor shall then be required to comply with the following (referred to as the "Section 3 clause"):

15.1. The work to be performed under this Contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. § 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted Projects covered by Section 3, shall, to the greatest extent feasible, be directed to low and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

15.2. The parties to this Contract agree to comply with HUD's regulations in 24 C.F.R. part 135, which implement Section 3. As evidenced by their execution of this Contract, the parties to this Contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.

15.3. The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

15.4. The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 C.F.R. part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations

in 24 C.F.R. part 135. The Contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 C.F.R. part 135.

15.5. The Contractor will certify that any vacant employment positions, including training positions, that are filled **(i)** after the Contractor is selected but before the Contract is executed, and **(ii)** with persons other than those to whom the regulations of 24 C.F.R. part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 C.F.R. part 135.

15.6. Noncompliance with HUD's regulations in 24 C.F.R. part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

15.7. With respect to work performed in connection with Section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. § 450e) also applies to the work to be performed under this Contract. Section 7(b) requires that to the greatest extent feasible **(i)** preference and opportunities for training and employment shall be given to Indians, and **(ii)** preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this Contract that are subject to the provisions of Section 3 and section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

16. Termination.

16.1. Termination of Contract for Cause. If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner its obligations under this Contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this Contract, the City shall thereupon have the right to terminate this Contract by either **(i)** giving written notice to the Contractor of a date certain by which Contractor shall, to the written satisfaction of the City, cure after which and without further action by any party, such termination shall automatically become effective and binding, or **(ii)** giving written notice to the Contractor specifying the effective date of such termination at least five (5) business days before the effective date of such termination.

16.1.1 In the event of a termination, all finished or unfinished documents, data, studies, reports, plans, specifications, drawings, supplies, services, etc. prepared by the Contractor under this Contract shall, at the option of the City, become the City’s property, and the Contractor shall be entitled to receive just and equitable compensation for any satisfactory work completed for such.

16.1.2 Notwithstanding the above, the Contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of this Contract by the Contractor, and the City may withhold any payments to the Contractor for the purpose of setoff until such time as the exact amount of damages due the City from the Contractor is determined.

16.2. Termination for Convenience of the City. The City may terminate this Contract at any time for the convenience of the City, by a notice in writing from the City to the Contractor. If this Contract is terminated by the City as provided herein, the Contractor will be paid an amount which bears the same ratio to the total compensation as the services actually performed bear to the total services of the Contractor covered by this Contract, less payments of compensation previously made.

16.3. Termination for Non-Appropriation or Lack of Funding. The Contractor acknowledges that the City is a municipal corporation and that this Contract is subject to the appropriation and disbursement of funds by the City sufficient for this Contract for each budget year in which this Contract is in effect. The Contractor therefore agrees that the City shall have the right to terminate this Contract in whole or in part without penalty to the City in the event that sufficient funds to provide for City payment(s) under this Contract is not appropriated, not authorized, or not made available, or such funding has been reduced. In the event this Contract is subject, in whole or in part, to the appropriation and disbursement of Federal and/or State funds and those Federal and/or State funds are not appropriated or are not disbursed to the City, the Contractor hereby agrees that the City shall have the right to terminate this Contract in whole or in part without penalty to the City.

16.3.1 Effects of Non-Appropriation. If funds to enable the City to effect continued payment under this Contract are not appropriated, authorized or otherwise made available by law, the City shall have the right to terminate this Contract without penalty at the end of the last period for which funds have been appropriated, authorized or otherwise made available by law by giving written notice of termination to the Contractor.

16.3.2 Effects of Reduced Levels of Funding. If funding is reduced by law, or funds to pay the Contractor for the agreed to level of the products, services and functions to be provided by the Contractor under this Contract are not appropriated, authorized or otherwise made available by law, the City may, upon seven (7) business days written notice to the Contractor, reduce the level of the products, services or functions in such manner and for such periods of time as the City may elect. The charges payable under this Contract shall be equitably adjusted to reflect such reduced level of products, services or functions and the parties shall be afforded the rights set forth in this Contract.

16.3.3 No Payment for Lost Profits. In no event shall the City be obligated to pay or otherwise compensate the Contractor for any lost or expected future profits.

16.4. Rights Upon Termination.

16.4.1 Termination for Cause. In the event the City terminates this Contract for cause, the Contractor shall relinquish to the City any applicable interest, title and ownership including, but not limited to, perpetual use of any proprietary rights in and to the products and deliverables delivered to, in possession of and properly invoiced and paid for by (except to the extent such invoiced amount is

disputed) the City. With regard to third party products, the Contractor shall transfer all licenses which it is permitted to transfer in accordance with the applicable third party license. The City shall have no financial obligation to compensate the Contractor for such terminated products unless payment is otherwise approved by the City prior to such termination. The Contractor shall be liable for costs incurred by the City, including but not limited to reasonable attorney fees and all court awarded fees and costs incurred in terminating this Contract in whole or in part.

16.4.2 Termination for Lack of Funding or Convenience. In the event of termination by the City for lack of funding or convenience, the City shall pay the Contractor for all labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc.(including any holdbacks) installed and delivered to the City as of the Termination Date and the Contractor shall relinquish to the City any applicable interest, title and ownership including, but not limited to perpetual use of any proprietary rights in and to said labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc. delivered to, in possession of and paid for by the City (except to the extent any invoiced amount is disputed). The Contractor shall be required to exercise commercially reasonable efforts to mitigate damages. In the event of a termination for Lack of Funding or Convenience the City and the Contractor may negotiate a mutually acceptable payment to the Contractor for reasonable demobilization expenses. Said demobilization expenses, if any, shall be handled in accordance with the provision of this Contract pertaining to changes in the Project.

16.4.3 Assumption of Subcontracts. In the event of termination, the City shall have the right to assume, at its option, any and all subcontracts for products, services and functions provided exclusively under this Contract.

16.4.4 Delivery of Documents. In the event of termination, **(i)** the Contractor shall promptly deliver to the City, in a manner reasonably specified by the City, all documents and other tangible items furnished by, or owned, leased, or licensed by, the City, and **(ii)** the City shall pay the Contractor for all services performed and deliverables completed and accepted (pro-rated for deliverables partially completed) prior to the effective date of the termination (except to the extent any invoice amount is disputed).

17. Force Majeure. Contractor shall not be held responsible for delays nor be subject to liquidated damages when such delays are caused by conditions beyond its control, including without limitation:

17.1. Acts of God, fire, explosion, epidemic, cyclone, flood, war, strikes, revolution, civil commotion, or acts of public enemies; and

17.2. Change of law and order, proclamation, regulation, ordinance, or governmental requirement.

Upon cessation of work for reason of force majeure delays, Contractor shall use its best efforts to meet the schedule set forth in Section 5 of this Contract.

18. Subcontracting. The Contractor shall not, without the prior written approval of the City's Using Agency, subcontract, in whole or in part, any of the Contractor's services. Any subcontractor so approved shall be required to secure and maintain insurance coverage equal to or better than that required of the Contractor and shall name the City as an additional insured party and said subcontractors shall deliver to the City a certificate of insurance evidencing such coverages. All subcontractors shall comply with all federal, state and local, laws, regulations and ordinances but such requirement shall not relieve the Contractor from its requirement that all services provided hereunder shall comply with all Federal, State and local, laws, regulations and ordinances.

18.1. The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by the Contractor.

18.2. The Contractor is responsible for and shall control activities of its subcontractors, and the subcontractors shall consult and cooperate with one another and other contractors working on the Project site. Each subcontractor shall furnish all necessary information to other subcontractors and shall lay out and install its own work so as to avoid any delays or interferences with the work of another. Any cost for changes, cutting and/or repairing, made necessary by failure to observe the above requirements shall be borne by the Contractor or subcontractor responsible for such failure or neglect.

18.3. The Contractor shall not, without the prior written approval of the City's Using Agency, substitute, terminate, replace or otherwise remove a subcontractor.

19. Assignability. The Contractor shall not assign any interest in this Contract, and shall not transfer any interest in the same (whether by assignment or novation) without the prior written approval of the City; provided, however, that claims for money due or to become due the Contractor from the City under this Contract may be assigned to a bank, trust, company, or other financial institution, or to a Trustee in Bankruptcy, without such approval. Notice of any such assignment or transfer shall be furnished promptly to the City.

20. Audit. The City reserves the right to audit the Contractor’s books of account in relation to this Contract any time during the period of this Contract or at any time during the twelve month period immediately following the closing or termination of this Contract. In the event the City elects to make such an audit, the Contractor shall immediately make available to the City all records pertaining to this Contract, including, but not limited to, payroll records, bank statements and canceled checks.

21. Interest of City Officials. No member of the governing bodies of the City, and no other officer, employee, or agent of the City who exercises any functions or responsibilities in connection with the carrying out of the Project to which this Contract pertains, shall have any personal interest, direct or indirect, in this Contract.

22. Interest of Contractor. The Contractor covenants that it presently has no interest and shall not acquire any interest, direct or indirect, in the Project or any parcel of land therein or any other interest which would conflict in any manner or degree with the performance of its services hereunder. The Contractor further covenants that in the performance of this Contract no person having any such interest shall be employed.

23. Entire Contract. This Contract shall constitute the complete and exclusive statement of the contract between the parties as it relates to this transaction and supersedes all previous agreements and understandings, whether written or oral, relating to such subject matter. Any amendment to this Contract must be in writing and agreed to and executed by the City and the Contractor, and must comply with the City's Charter and Code of Ordinances.

24. Independent Contractor Relationship. The relationship between the City and the Contractor is that of client and independent contractor. No agent, employee, or servant of the Contractor shall be deemed to be an employee, agent or servant of the City. The Contractor shall be solely and entirely responsible for its acts and the acts of its agents, employees, servants and subcontractors during the performance of this Contract.

25. Severability. Whenever possible, each provision of this Contract shall be interpreted in such a manner as to be effective and valid under applicable law. If any provision of this Contract, however, is held to be prohibited or invalid under applicable law, such provision shall be deemed restated to reflect the original intentions of the parties, as nearly as possible in accordance with applicable law, and if capable of substantial performance, the remaining provisions of this Contract shall be enforced as if this Contract was entered into without an invalid provision. If the ruling and/or controlling principle of law or equity leading to the ruling is subsequently overruled, modified or amended by legislation, judicial or administrative action, then the provision(s) in question as originally set forth in this Contract shall be deemed valid and enforceable to the maximum extent permitted by the new controlling principal of law or equity.

26. Survival. Any provisions of this Contract that impose continuing obligations on the parties shall survive the expiration or termination of this Contract for any reason.

27. Changes in the Project: Change Orders.

27.1. Requests for Change Orders. The City reserves the right on its own volition, or based upon a proposal for a Change Order submitted in written form with a thorough explanation by the Contractor, to request from time to time any changes to the requirements and specifications of this Contract and the products to be provided and the functions and services to be performed by the Contractor under this Contract. Such changes must be authorized by the City. The City will not approve of any change orders, deletions, additions, or additional work items to the Scope of Services or any change in the terms and conditions of this Contract except by means of a City authorized amended Scope of Services, applicable and restricted to those items set forth in §1, above, or Change Order issued as set forth in this section, except in the event of an emergency endangering life or property.

27.2. Procedures.

27.2.1 The Contractor's Response to a Change Request.

i. Within thirty (30) calendar days after receipt of a request by the City for any such change or such other period of time as the Parties may mutually agree to in writing, the Contractor shall submit to the City a proposal describing any changes in Contract Milestones or Contract completion dates, products, functions, timing of delivery, assignment of personnel, and the like, and any associated price adjustment. The Contractor's proposal shall describe, in detail, the basis for the proposed price adjustment, including the charges for any products required to implement the change request.

ii. To the extent that additional cost or cost savings result from a change in required products, the Contractor shall obtain any additional products and provide them to the City at a negotiated price acceptable to the City and the Contractor. Similarly, if the change request is expected to result in a reduction in products required to perform the services, the Contractor's charges shall be reduced by the cost savings resulting from the products eliminated by the change request**.**

27.2.2 City's Acceptance of Change Request. If the City accepts the Contractor's proposal, the City shall issue a change order referencing the Contractor's proposal and both parties shall sign the change order. The Contractor shall not implement any change request until the City has issued a valid, properly executed, change order.

27.2.3 City's Rejection of Change Request. If the City does not accept the Contractor's proposal, the City may within two weeks of such non-acceptance: **(i)** withdraw its change request; or, **(ii)** modify its change request, in which case the procedures set forth above shall apply to the Contractor's response to the modified change request.

27.3. City Discretion. The City may, in its sole discretion, approve the proposed Change Order and shall forward same for additional signatures under the following conditions: **(i)** If it conforms to provisions of applicable laws, and **(ii)** if it is consistent with this Contract, and **(iii)** if the time of performance of this Contract will not be unreasonably delayed, **(iv)** the Final Completion date is not changed, **(v)** if the Change Order requires a change to the Final Completion date, such change has been authorized by an approved, executed, written Amendment to this Contract, and **(vii)** if the Change Order requires an increase in the price of the Contract, the City **(1)** has sufficient funds, and **(2)** if a budget transfer is required to cover the cost of the proposed Change Order, such transfer has secured the written approval of the Board of Aldermen and other required regulatory agencies.

27.4. Change Orders Governed by the Provisions of this Contract. All work performed under a Change Order is governed by the provisions of this Contract.

28. Conflicts or Disputes. This Contract represents the concurrence between the City and the Contractor and governs all disputes between them. In the instance of a conflict or dispute over issues not specifically referenced within the Contract, the following documents shall be used as historical documents, without regard to the order of precedence, to resolve such conflicts or disputes, as follows: **(i)** the City's **RFP Number 7932** and **(ii)** the Contractor's Bid response to **RFP Number 7932**, dated February 1, 2024, as amended. Said historical documents are attached hereto as part of **Attachment A.**

28.1. Procedure. This procedure supersedes all statements to the contrary occurring either in proposals or other prior agreements, oral or written, and all other communications between the parties relating to this subject.

28.2. Presumption. This Contract or any section thereof shall not be construed against any party due to the fact that the Contract or any section thereof was drafted by such party.

29. Disputes; Legal Proceedings; Waiver of Trial by Jury and Continued Performance. The Contractor agrees that its waives a trial by jury as to any and all claims, causes of action or disputes arising out of this Contract or services to be provided pursuant to this Contract. Notwithstanding any such claim, dispute or legal action, the Contractor shall continue to perform services under this Contract in a timely manner, unless otherwise directed by the City.

30. Binding Contract. The City and the Contractor each bind themselves, and their successors, assigns and legal representatives to the other party to this Contract and to the successors, assigns and legal representatives of such other party with respect to all covenants of this Contract.

31. Waiver. Any waiver of the terms and conditions of this Contract by either of the parties hereto shall not be construed to be a waiver of any other term or condition of this Contract.

32. Governing Laws. This Contract, its terms and conditions and any claims arising there from shall be governed by the laws of the State of Connecticut.

33. Notice. Except as otherwise specifically prohibited in this Contract, whenever under this Contract approvals, authorizations, determinations, notices, satisfactions or waivers are required or permitted, such items shall be effective and valid only when given in writing signed by a duly authorized officer of the City or the Contractor, and delivered in hand or sent by mail, postage prepaid, to the party to whom it is directed, which until changed by written notice, are as follows:

Contractor: Silktown Roofing, Inc.
27 Pleasant Street
Manchester, CT 06040

City: City of Waterbury
Chase Municipal Building
235 Grand Street
Waterbury, CT 06702

34. City Code of Ordinances, Ethics and Conflict of Interest Code, Provisions.
The Person (the term "Person" shall herein be as defined in Section 38 of the City's Code of Ordinances) supplying the labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc. under this Contract shall comply with all applicable Federal, State and Municipal statutes, regulations, charters, ordinances, rules, etc, whether or not they are expressly stated in this Contract, including but not limited to the following:

34.1. It shall be a material breach of this Contract, and, except as may be permitted by regulations or rulings of the City of Waterbury Board of Ethics it shall be a violation of the City's Code of Ordinances, for any Public Official, City Employee or Member of a Board or Commission who is participating directly or indirectly in the procurement process as set forth in the City's Code of Ordinances, including those participating in exempt transactions, to become or be the employee of any person contracting with the governmental body by whom the Official, Employee, or Board or Commission member is employed or is a member.

34.2. It shall be a material breach of this Contract, and it shall be a violation of the City's Code of Ordinances for any Person to offer, give, or agree to give any current or former Public Official, Employee or Member of a Board or Commission, or for such current or former Public Official, Employee or Member of a Board or Commission to solicit, demand, accept or agree to accept from another Person, a gratuity or an offer of employment in connection with any: decision; approval; disapproval; recommendation; preparation of any part of a program requirement or a requisition; influencing the content of any specification or procurement standard; or rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a Contract or Purchase Order, or to any solicitation or proposal therefore.

34.3. It shall be a material breach of this Contract and it shall be a violation of the City's Code of Ordinances for any payment, Gratuity, or offer of employment to be made as an inducement for the award of a subcontract or order, by or on behalf of a subcontractor, the prime Contractor or higher tier subcontractor or any Person associated therewith, under a Contract or Purchase Order to the City.

34.4. The value of anything transferred or received in violation of the City's Charter, Code of Ordinances, and/or regulations promulgated there under, by any Person subject to said Charter and/or Ordinances may be recovered by the City.

34.5. Upon a showing that a subcontractor made a kickback to the City, a prime Contractor or a higher tier subcontractor in connection with the award of a subcontract or order there under, it shall be conclusively presumed that the amount thereof was included in the price of the subcontract or order and ultimately borne by the City and will be recoverable hereunder from the recipient. In addition, said value may also be recovered from the subcontractor making such kickbacks. Recovery from one offending party shall not preclude recovery from other offending parties.

34.6. It shall be a material breach of this Contract and it shall be a violation of the City's Code of Ordinances for a Person to be retained, or to retain a Person, to solicit or secure a contract with the City upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee; and every Person, before being awarded a City Contract, shall deliver to the City, on a City authored form, a representation that such Person has not retained anyone in violation of this subsection 34.6, the failure to deliver said form being a material breach of this Contract and a violation of the City's Code of Ordinances. Note, however, this subsection 34.6 shall not apply to full-time Employees who, as a condition of their employment, may be entitled to bonuses or other fees in accordance with their employment relationship.

34.7. The Person hereby expressly represents that he/she/it has complied with those sections of the City's Code of Ordinances requiring that said Person has **(i)** delivered to the City an affidavit, on a City authored form, stating that the Person and its affiliates have no delinquent taxes or other financial obligations owned to the City; **(ii)** filed the City authored financial disclosure statement form as set forth in the City's Code of Ordinances regarding disclosure of financial interests; **(iii)** delivered to the City a written acknowledgement, on a City authored form, evidencing receipt of a copy of the "Ethics and Conflict of Interest" ordinance for the City of Waterbury and hereby expressly represents that said Person is in full compliance with the entirety of said Code of Ordinances; and **(iv)** filed a current list of all taxable personal and real property as required by the State of Connecticut General Statutes. Any violation of this subsection 34.7 shall be deemed a material breach of this Contract and shall be a violation of the City's Code of Ordinances.

34.8. The definitions set forth in the City's Code of Ordinances shall be the primary source for interpretation of the forgoing subsections 34.1-34.7.

34.9. The Contractor is hereby charged with the requirement that it shall have knowledge of, and shall fully comply with, all relevant provisions of the City's Charter and all relevant provisions of the City's Code of Ordinances, including without limitation Chapters 93, titled "Discriminatory Practices", Chapter 38 titled "Centralized Procurement System", and Chapter 39 titled "Ethics and Conflict of Interest", of said Code as may be amended from time to time.

34.10 The Contractor hereby acknowledges receipt of a copy of the Chapters 38 and 39 of City's Ordinance regarding Procurement, Ethics, and Conflicts of Interest and has familiarized itself with said Code and hereby agrees to adhere to said Code. The text of Chapters 38 and 39 of said Code may be obtained from the Office of the City Clerk of the City and on the internet at the City Clerk's web

site: https://www.waterburyct.org/services/city-clerk/code-of-ordinances [click link titled "The City of Waterbury Code of Ordinances *Revised 12/31/19".* For Chapter 38, click on "TITLE III: ADMINISTRATION", then click on "CHAPTER 38: CENTRALIZED PROCUREMENT SYSTEM". For Chapter 39, click on "TITLE III: ADMINISTRATION", then click on "CHAPTER 39: ETHICS AND CONFLICTS OF INTEREST".

34.11. The Contractor is hereby charged with the requirement that it shall have knowledge of, and shall fully comply with, the City's Ordinance Sections 34.15 through 34.99 entitled, "Ordinance Concerning the Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects," and the State of Connecticut Legislature's Special Act No. 01-1.

34.12. Every Person who conducts business with, contracts, with or provides commodities or services to the City, is charged with notice of the extent of the powers and authority, and the limitations thereon, of the Public Officials and Employees of the City, as set forth in the charter of the City, the Code of Ordinances and any Regulations or Policies pertaining thereto. In particular, and without implying any limitation as to its applicability, it applies to all Persons who participate in the procedures pertaining to the Centralized Procurement System as set forth in Chapter 38, and the Ethics and Conflict of Interest provisions set forth in Chapter 39 of the Code of Ordinances.

34.13. INTEREST OF CITY OFFICIALS. No member of the governing body of the City, and no other officer, employee, or agent of the City who exercises any functions or responsibilities in connection with the carrying out of the project, to which this agreement pertains, shall have any personal interest, direct or indirect, in this agreement.

34.14. PROHIBITION AGAINST CONTINGENCY FEES. The Contractor hereby represents that it has not retained anyone to solicit or secure a contract with the City upon an agreement or understanding for a commission, percentage, brokerage or contingency fee.

34.15. FREEDOM OF INFORMATION ACT NOTICE. Pursuant to State statute, in the event the total compensation payable to the Contractor set forth in Section 6 of this Contract is greater than $2,500,000.00, the City is entitled to receive a copy of any and all Contractor records and files related to the performance of this Contract and those records and files are subject to the Freedom of Information Act ("the Act") and may be disclosed by the City pursuant to the Act.

35. Definitions. Whenever the following, words, terms, etc. appear in this Contract, the intent and meaning shall be as follows:

35.1 Additional Work: Work required by the City that involves a substantial addition to, deduction from or modification of the Contract Documents.

35.2 Bid or Proposal: The form on which the bidder is to submit a bid for the Work contemplated.

35.3 Bidder: A person, partnership, corporation or other business organization submitting a bid on the form for the Work contemplated.

35.4 City: The City of Waterbury, acting directly or through specifically authorized personnel.

35.5 Construction Supervisor: An employee of the City of Waterbury, or other City duly authorized person.

35.6 Contract Time: The number of days as stated in the Contract to: (i) achieve Substantial Completion, (ii) Final Completion.

35.7 Equal: The recognized equivalent in substance and function; considering quality, workmanship, economy of operation, durability and suitability for purposes intended, and not constituting a change in the Work specified. Whenever the words "equal" or "equals" or words of like import are used, it shall be understood they mean "equal" in the opinion of the City.

35.8 Final Completion: The time at which the Project has progressed to the point where, in the opinion of the City, the Project is complete such that it is ready for final payment as evidenced by the City's, or its duly authorized City representative's, written recommendation of final payment. The terms "finally complete" and "finally completed" as applied to the Project refer to Final Completion.

35.9 Notice to Proceed: A letter from the City which shall state the date of execution of the Contract and specifically advise the Contractor to begin work on the Contract.

35.10 Plans: All drawings or reproductions of drawings pertaining to the construction of the work contemplated and its appurtenances.

35.11 Project Engineer or Manager: An employee of the City or a person, partnership, corporation or other business organization under contract with the City, commissioned to perform construction administration and inspection duties during construction.

35.12 Shop Drawings: Drawings, diagrams, schedules, performance charts, brochures and other materials prepared by the Contractor or subcontractors, manufacturers or distributors which illustrate some portion of the work.

35.13 Specifications or Technical Specifications: The description, provisions and other requirements pertaining to the materials, methods and manner of performing the Project.

35.14 Subcontractor: A person, partnership, corporation or other business organization supplying labor and/or materials for work at the site of the Project to and under agreement with the Contractor.

35.15 Substantial Completion: The time at which, in the opinion of the Engineer, the Project (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Project (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Project mean Substantial Completion thereof.

35.16 Substitution: A replacement of specified material, device or equipment which is sufficiently different in substance, function, quality or workmanship to become the subject of a Change Order.

35.17 Supplementary General Conditions: An extension to the terms, conditions, and provisions set forth in this document as additional, material, provisions of this Contract.

35.18 Work: All plant, labor, materials, services, supplies, equipment and other facilities and items necessary for, or incidental to, the completion of the terms of the Contract.

35.19 Using Agency: The City of Waterbury Board of Education

[Signature page follows]

IN WITNESS WHEREOF, the parties hereto execute this Contract on the dates signed below.

WITNESSES:

_____

_____

CITY OF WATERBURY

By:_____
Paul K. Pernerewski, Jr., Mayor

Date: _____

WITNESSES:

_____

_____

SILKTOWN ROOFING, INC.

By:_____
John C. McConville
Its President

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

Date: March 13, 2024

ATTACHMENT A

1.1.1. Project plans, specifications, drawings, supplementary conditions
1.1.2. Bid Forms, including the City's Bid documents and the Contractor's responses
1.1.3. any and all amendment(s) and Change Orders, issued by the City after execution of Contract (incorporated by reference)
1.1.4. Non-Collusion Affidavit; Debarment Certificate
1.1.5. Performance Bond and Payment Bond
1.1.6. Certificates of Insurance
1.1.7. All applicable Federal, State and local statutes, regulations charter and ordinances (incorporated by reference)
1.1.8. All permits and licenses (incorporated by reference)

INDEX TO THE SUPPLEMENTARY CONDITIONS OF THE CONTRACT

.ARTICLE NUMBER	TITLE	PAGE NUMBER
1.	PLANS AND SPECIFICATIONS AT THE SITE.....	38
2.	CONSTRUCTION PROGRESS SCHEDULE.....	38
3.	SCHEDULE OF VALUES; APPLICATION FOR PAYMENT	39
4.	PARTIAL PAYMENTS.....	39
5.	CONSTRUCTION EQUIPMENT.....	39
6.	INSPECTION AND TESTS.....	39
7.	UTILITIES.....	40
8.	PROGRESS MEETINGS.....	40

1. PLANS AND SPECIFICATIONS AT THE SITE

The Contractor shall maintain at the Project site two (2) copies of all Plans, Specifications, Addenda, approved Shop Drawings, Change Orders and other Modifications, Schedules and Instructions, in good order. One copy is to be marked to record all changes made during construction. These shall be available at all times to the Project Engineer and the City or their authorized representatives. At the conclusion of construction, the Contractor is to turn one (1) corrected set over to the Project Engineer.

2. CONSTRUCTION PROGRESS SCHEDULE

A. Within one (1) week after the Notice to Proceed, and prior to commencement of any work on site, the Contractor shall submit for the approval of the City three (3) copies of a Construction Progress Schedule which shall be developed by the Contractor through cooperation of the Project Engineer or authorized personnel. At the same time, the Contractor shall submit the Schedule of Values, Sedimentation and Erosion Control measures, Water Control Plan and Environmental Protection Plan.

B. The Progress Schedule shall indicate the proposed scheduling of the items of work listed in the various divisions of the work in the specifications. The schedule shall also indicate all subcontractors to be utilized on the Contract and the portions of the Contract that they will be performing. The Contractor shall evaluate the status of the Project at least monthly, comparing it to the original schedule which shall be revised as required.

3. SCHEDULE OF VALUES; APPLICATION FOR PAYMENT

A. Within one (1) week after the Notice to Proceed, as a basis for estimating partial payments, the Contractor shall submit for the approval of the City a certified Schedule of Values, broken down into quantities and unit costs for the various parts of the work, divided as may be directed and aggregating the total sum of the Contract; and if required, he shall submit evidence supporting this schedule.

B. The Contractor's requisition for payment shall be subdivided into items to correspond with the approved schedule and shall be in such numbers of copies as may be designated by the City.

4. PARTIAL PAYMENTS

A. The City will review the Contractor's monthly requisitions for Partial Payments to arrive at what is, in its opinion, a fair and just estimate of the materials suitably stored on the site and the amount of work performed on the Contract. At its discretion, the City may allow to be included in the monthly requisitions materials stored off the site. In the event the City allows the Contractor to include in its requisitions payments for materials stored off the site, the Contractor shall also submit any additional bonds and/or insurance certificates relating to off-site stored material, and follow such other procedures as may be required by the City.

B. In making such Partial Payments for the Project, retainage shall be held in accordance with Clean Water Funding Regulations (if applicable).

5. CONSTRUCTION EQUIPMENT

A. The Contractor shall furnish and maintain, at its own cost and risk, all tools, apparatus and appliances, hoists and/or cranes and power for same, scaffolding, runways, ladders, temporary supports and bracing and all other similar work or material necessary to insure speed, convenience and safety in the execution of its Contract. All such items shall be subject to approval of the City, upon Engineer’s recommendation, as to general stability, type and location, but the responsibility for proper design, strength and safety shall remain with the Contractor. All such items shall comply with OSHA regulations and all other applicable codes, statutes, rules and regulations.

B. The Contractor shall provide all drains, drainage, ditches and pumping apparatus (including power and attendance for same) that may be necessary to keep all excavations and subgrade work free from water.

6. INSPECTION AND TESTS

A. All material and workmanship (if not otherwise designated by the Specifications) shall be subject to inspection, examination and testing by the City and/or Project Engineer at any and all times during manufacture and/or construction and at any and all places where such manufacture and/or construction is carried on. All tests

shall be made at the Contractor's expense. Notice of the time of all tests to be made at the site shall be given to all interested parties.

B. Without additional charge, the Contractor shall promptly furnish all reasonable facilities, labor and materials necessary to make tests safe and convenient. Special, full size and performance tests shall be as described in the Specifications.

C. If, at any time before final acceptance of the entire Project, the City and/or Project Engineer considers it necessary or advisable to examine any portion of the Project already completed by removing or testing out the same, the Contractor shall upon request furnish promptly all necessary facilities, labor and materials. If such work is found to be defective in any material respect because of a fault of the Contractor or any of its subcontractors, or if any work shall have been covered over without the approval or consent of the City (whether or not it is found to be defective), the Contractor shall be liable for testing costs and all costs of correction, including labor, material, services of required consultants, additional supervision and administrative costs.

7. UTILITIES

A. The accuracy and completeness of the utility information shown on the Plans is not guaranteed. The Contractor shall make its own investigation of the extent and location of utilities and of the possibility of relocation work by the utility companies, and shall plan its operations accordingly. No claim for any delays, damage or extra work occasioned thereby will be allowed.

B. The Contractor shall allow others access to the Project for the purpose of placing, relocating or maintaining utilities, and he shall cooperate in every way in the performance of this Project.

C. The Contractor shall notify the utility owners well in advance of the time the Contractor proposes to perform any work which would endanger utility installations, and the Contractor shall cooperate with the utility owners in relocating and/or protecting such installations during construction operations.

D. No payment will be made to the Contractor for locating, protecting and making arrangements for relocating public utilities or for any delays caused thereby. The Contractor shall include all costs of this Project in other scheduled items of the Contract.

E. The Contractor shall contact "Call Before You Dig" at least two days prior to commencing any excavation on the site (toll free in Connecticut at 1-800-922-4455).

8. PROGRESS MEETINGS

Progress meetings will be held weekly at locations, dates and times selected by the OWNER for the purpose of reviewing, scheduling and coordinating the Project's

progress as well as other matters.

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Sprague Elementary School Roof Replacement
RFP# 7932
Project 151-0308RR

The City of Waterbury, Department of *Education* (hereinafter "City"), is seeking a contractor for *Sprague Elementary School Roof Replacement.*

A. Background and Intent

Roof replacement at Sprague Elementary School using existing architectural design.

B. Qualifications

Eligible proposers will be those consultants, businesses, and institutions that have the following qualifications:

1. Experience and expertise in regard to providing the types of or similar services as those outlined in the Scope of Services in this RFP
2. A proposer with a proven track record in providing these types of or similar services for municipal governments.
3. Knowledge of federal and State laws and regulations governing the services outlined in the scope of services.

C. Scope of Services

Roof replacement & associated work using existing architectural designs at Sprague Elementary School. See Attachment G.

D. Agreement Period

The agreement period for any contract or purchase order resulting from this RFP is anticipated to be 120 days from fully executed contract.

E. Insurance

The respondent shall provide insurance as set for in **Attachment D** provided by insurers, satisfactory to the City and authorized to do business in the State of Connecticut, an "A-" Best's Rating and at least a Class V3 or better financial category as shown in the most current A.M. Best Company ratings.

F. General Information

1. The City is an Equal Opportunity and Affirmative Action employer and does not discriminate in its hiring, employment, or business practices. The City is committed to complying with the Americans with Disabilities Act of 1990 (ADA) and does not discriminate on the basis of disability, in admission to, access to, or operation of its programs, services, or activities.

2. ***There will be a <u>mandatory</u> Information Session with respect to this RFP on January 18, 2024 at 11:15AM at Sprague Elementary 1443 Thomaston Ave Wtby, CT 06704. ATTENDANCE AND ON-TIME SIGN-IN AT THE Information Session IS MANDATORY. THOSE LATE/NOT ATTENDING WILL NOT BE ELIGIBLE TO SUBMIT A PROPOSAL.***

3. Proposers must complete and sign the items and any forms included in <u>Attachment A</u>. (Contract Compliance Packet).

4. All questions and communications about this request for Proposal and submission requirements must be directed to the City of Waterbury ProcureWare website and must be received **by 2:00 PM on January 23, 2024**. Prospective proposers must limit their contact regarding this RFP to the Purchasing Director or such other person otherwise designated by the Purchasing Director. Responses to questions submitted by the above date or identified at any Information Session to be held in regard to this RFP, **along with any changes or amendments to this RFP**, will be available via the City of Waterbury ProcureWare website **by January 26, 2024, 2:00 PM**. It shall be the responsibility of the proposer to download this information. If you have any procedural questions in this regard, please call the Purchasing Director at (203) 574-6748.

G. Management

Any contract or purchase order resulting from this RFP will be managed by the Department of Education.

H. Conditions

All those submitting proposals must be willing to adhere to the following conditions and must positively state this in the proposal:

1. All proposals in response to this RFP are to be the sole property of the City. Proposers are encouraged **not** to include in their proposals any information which is proprietary. All materials associated with this procurement process are subject to the terms of state laws defining freedom of information and privacy and all rules, regulations and interpretations resulting from those laws.

2. Any product, whether acceptable or unacceptable, developed under a contract awarded as a result of the RFP is to be the sole property of the City.

3. The timing and sequence of events resulting from this RFP will ultimately be determined by the City.

4. The proposer agrees that the proposal will remain valid for a period of 90 days after the closing date for the submission and may be extended beyond that time by mutual agreement.

5. The City may amend the terms or cancel this RFP any time prior to the execution of a contract or purchase order for these services if the City deems it to be necessary, appropriate or otherwise in the best interests of the City. Failure to acknowledge receipt of amendments, in accordance with the instructions contained in the amendments, may result in a proposal not being considered. At his option, the City's Director of Purchasing may provide all proposers with a limited opportunity to remedy any technical deficiencies identified by the City in their initial review of proposals.

6. The proposer must certify that the personnel identified in its response to this RFP will be the persons actually assigned to the project. Any additions, deletions or changes in personnel from the proposal during the course of the agreement period must be approved by the City, with the exception of personnel who have terminated employment. Replacements for personnel who have terminated employment are subject to approval by the City. At its discretion, the City may require the removal and replacement of any of the proposer's personnel who do not perform adequately, regardless of whether they were previously approved by the City.

7. All subcontractors hired by the proposer awarded a contract or purchase order as a result of this RFP must have prior approval of the City prior to and during the agreement period.

8. Any costs and expenses incurred by proposers in preparing or submitting proposals are the sole responsibility of the proposer.

9. A proposer must be prepared to present evidence of experience, ability, financial standing, and any other information deemed necessary by the City to satisfactorily meet the requirements set forth or implied in the proposal.

10. No additions or changes to the original proposal will be allowed after submittal, except as may be allowed by the City, at its option, in accordance with Section H.5. of this RFP. While changes are not permitted, clarification of proposals may be required by the City at the proposer's sole cost and expense. The final price and scope of services of any contract or purchase order resulting from this RFP may be negotiated with responsible proposers.

11. The proposer may be required to give presentations to the extent necessary to satisfy the City's requirements or needs. In some cases, proposers may have to give presentations or further explanation to any RFP selection committee established by the City.

12. The proposer represents and warrants that the proposal is not made in connection with any other proposer and is in all respects fair and without collusion or fraud. The proposer further represents and warrants that it did not participate in any part of the RFP development process, had no knowledge of the specific contents of the RFP prior to its issuance, and that no agent, representative or employee of the City participated directly in the proposer's proposal preparation.

13. All responses to the RFP must conform to instruction. Failure to include any required signatures, provide the required number of copies, to meet deadlines, answer all questions, follow the requested format, or failure to comply with any other requirements of this RFP may be considered appropriate cause for rejection of the response.

14. The proposer must accept the City's standard agreement language. <u>See Attachment B.</u>

15. Any contract or purchase order resulting from this RFP process will represent the entire agreement between the proposer and the City and will supersede all prior negotiations, representations or agreements, alleged or made, between the parties. The City shall assume no liability for payment of services under the terms of the contract or purchase order until the successful proposer is notified that the contract or purchase order has been accepted and approved by the City. Any contract resulting from this RFP may be amended only by means of a written instrument signed by the proposer and signed by the Mayor.

I. Proposal Requirements & Required Format

One original (clearly identified as such) and ***3*** paper copies of the proposal, as well as a copy of the original proposal in pdf format on a CD or flash drive, must be received at the following address no later than **11:15 AM on *February 1, 2024.*** **Proposals received after that time shall <u>not</u> be considered.**

Mr. Kevin McCaffery
Director of Purchasing
City of Waterbury
235 Grand Street
Room 103
Waterbury, CT 06702

Proposals submitted must be bound, paginated, indexed and numbered consecutively. Proposers shall complete **Attachment C** addressed to Mr. McCaffery, which, in part, includes a statement by the proposer accepting all terms and conditions and requirements contained in the RFP, and which shall be signed by a duly authorized official of the organization submitting the proposal. Proposers shall also, as indicated in Attachment C, identify the name of a contact person, along with their telephone number, email address, if applicable, and address, who can be contacted for the purpose of clarifying the information contained in their response to this RFP. In addition to any other information required in Attachment C, proposers shall provide their firm's authorization and a request to any persons, firm, or corporation to furnish any information requested by the City of Waterbury in verification of the recitals included in its response to this RFP.

Proposals must set forth accurate and complete information for each of the items listed below. At the City's discretion, failure to do so could result in disqualification.

1. Proposer Information: Please provide the following information:

    a. Firm Name
    b. Permanent main office address
    c. Date firm organized.
    d. Legal Form of ownership. If a corporation, indicate where incorporated.
    e. How many years have you been engaged in services you provide under your present name?
    f. Names, titles, reporting relationships, and background and experience of the principal members of your organization, including officers.

2. Experience, Expertise and Capabilities

    a. Philosophy Statement and Business Focus. A statement of the proposer's philosophy and approach in undertaking the services of the nature outlined in the RFP, as well as a description of its primary business focus.
    b. Summary of Relevant Experience. A listing of all projects that the proposer has completed within the last three (3) years must be provided, as well as all projects of a similar nature to those included in the Scope of Services in this RFP. The following information shall be provided for each organization listed under this subsection:
        - Organization name and the name, title, address and telephone number of a responsible contact person.
        - Nature of services provided and dates services started and actually completed. Please indicate, for each assignment, if it was completed within the original contract timeframe and budget. If not, please explain.
        - For each project done for a municipality or other government agency, please indicate the gross cost of the agreement.

        Additionally, please list any contracts or purchase orders in the last three (3) years between the proposer and any agency of the City of Waterbury.

c. Personnel Listing. A complete listing of the staff identified in the work plan by job classification, along with their resumes. Each resume shall include the individual's qualifications and experience in the subject area.
d. Conflict of Interest. Disclose any current (within the last 3 years) business, financial, personal or other types of relationships which may pose a conflict of interest.

3. Statement of Qualifications and Work Plan

a. Qualifications. Please describe your firm's qualifications, experience and capabilities as they pertain to each of the areas of qualifications listed, as well as those of the personnel to be assigned to this project.
b. Work Plan. Please describe the approach that would be generally followed in undertaking the Scope of Services in Section C above.
c. Services Expected of the City. Identify the nature and scope of the services that would be generally required of the City in undertaking these projects.

4. Cost Schedule. Proposals shall include a single price for work to be performed in accordance with this RFP, inclusive of all personnel and non-personnel expenses as per Attachment E. This price should encompass the entire Scope of Services in this RFP. The City reserves the right to negotiate costs, scope of services, and key personnel based on provider proposals. In order for the City to evaluate the proposed cost, proposers must include for each element in the Work Plan outlined in Section I.3.b. above, the staff, hours, hourly rates and the total cost. Include details generally associated with non-personnel costs as an additional cost section.

Since the City may desire to consider the proposer's experience, qualifications, statement of work, and other aspects of the RFP prior to the Cost Proposal, the Cost Proposal shall sealed in a separate envelope marked "Confidential: Cost Proposal".

Note: The City is exempt from the payment of excise, transportation and sales taxes imposed by the Federal Government and/or the State. Such taxes must not be included in prices.

5. Information Regarding: Failure to Complete Work, Default and Litigation.

Please respond to the following questions:
a. Have you ever failed to complete any work awarded to you? If so, where and why?
b. Have you ever defaulted on a contract? If so, where and why?
c. Is there any pending litigation which could affect your organization's ability to perform this agreement? If so, please describe.
d. Has your firm ever had a contract terminated for cause within the past five years? If yes, provide details.
e. Has your firm been named in a lawsuit related to errors and omissions within the past five years? If yes, provide details.

f. During the past seven years, has your firm ever filed for protection under the Federal bankruptcy laws? If yes, provide details.
g. Are there any other factors or information that could affect your firm's ability to provide the services being sought about which the City should be aware?

6. Exceptions and Alternatives. Proposers wishing to take any exceptions to any requirement in the RFP shall state and explain such exceptions. The City may accept proposals which take exception to any requirements in this RFP, or which offer any alternative to a requirement herein, as well as consider such exceptions and alternatives in evaluating responses. Any exception or alternative must be clearly delineated and cannot materially affect the substance of this Request for Proposals.

7. Additional Data. Any additional information which the proposer wishes to bring to the attention of the City that is relevant to this RFP.

J. Evaluation of Proposals; Selection Process

1. Evaluation Criteria

The following criteria are expected to be among those utilized in the selection process. They are presented as a guide for the proposer in understanding the City's requirements and expectations for this project and are not necessarily all inclusive or presented in order of importance.

a. Proposed statement of work. Emphasis will be on grasp of the issues involved, soundness of approach and the quality of the overall proposal.

b. Proposed cost schedule.

c. Experience, expertise, and capabilities of the proposer. Background, qualifications, and previous experience of personnel to be assigned to the project and their demonstrated competence, experience and expertise in the type of work to be performed. The type of experience, expertise, capabilities, and qualifications desired are outlined in Section B. - Qualifications of this RFP. The City may contact one or more of the organization references listed in Section I.2.b. of this RFP as part of assessing the experience, expertise and capabilities of the proposers or those selected as the finalist(s).

d. Time, Project and Cost Schedule**.** Emphasis will be on the proposer's record with completing tasks and producing the necessary products within required time frames and within budget.

2. Selection Process

The City of Waterbury may elect to have the proposals evaluated by a committee as part of making a selection. If deemed necessary, the City reserves the right to arrange for interviews/oral presentations as part of the

selection process, which invitations for interviews may involve a short-listing of the proposals received.

K.Rights Reserved To The City

The City reserves the right to award in part, to reject any and all proposals in whole or in part for misrepresentation or if the proposer is in default of any prior City contract, or if the proposal limits or modifies any of the terms and conditions and/or specifications of the RFP. The City also reserves the right to waive technical defects, irregularities and omissions if, in its judgment, the best interest of the City will be served.

L. Federal, State and Local Employment Requirements

Contractors, if applicable, shall be obligated to fully comply with the attached Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects, i.e. City of Waterbury Ordinances Chapter 34 ("Good Jobs Ordinance"), Federal Davis- Bacon Act, Federal American Recovery and Reinvestment Act of 2009, and the Housing and Urban Development Section 3 Clause, all as further specified in the attached City of Waterbury Contract form. Also attached hereto, is a full copy of the aforesaid City of Waterbury Ordinance, commonly referred to as the "Good Jobs Ordinance".

M. State Set-Aside Requirements

The contractor who is selected to perform this municipal public works project, funded in whole or part by the State, must comply with CONN. GEN. STAT. §§ 4a-60, 4a-60a, 4a-60g, and 46a-68b through 46a-68f, inclusive, as amended by June 2015 Special Session Public Act 15-5. An Affirmative Action Plan must be filed with and approved by the Commission on Human Rights and Opportunities prior to the commencement of construction.

State law requires a minimum of twenty-five (25%) percent of the state-funded portion of the contract for award to subcontractors holding current certification from the Connecticut Department of Administrative Services ("DAS") under the provisions of CONN. GEN. STAT. § 4a-60g, as amended. (25% of the work with DAS certified Small and Minority owned businesses and 25% of that work with DAS certified Minority, Women and/or Disabled owned businesses.) The contractor must demonstrate good faith effort to meet the 25% set-aside goals.

For municipal public works contracts, the contractor must file a written or electronic non-discrimination certification with the Commission on Human Rights and Opportunities. Forms can be found at http://www.ct.gov/opm/cwp/view.asp?a=2982&q=390928&opmNav_GID=1806.

N. State DAS Requirements for Construction Projects

If applicable, Proposers shall submit with their Proposals their DAS Contractor Prequalification Certificate along with a current Updated Bid/Proposal Statement. In addition, any named Subcontractor whose subcontract value is equal to or greater than

$500,000 shall hold a current DAS Contractor Prequalification Certificate in the closest applicable Classification of the work that the Subcontractor will complete in the contract. The proposer must submit with their proposal, all applicable Subcontractor DAS Prequalification certificates. Any Proposal submitted without a copy of the DAS Prequalification Certificate and an Updated Bid/Proposal Statement for the proposal and DAS Prequalification Certificates for Subcontractors whose subcontract value is equal to or greater than $500,000 shall be invalid.

The Successful Proposer and each of its Subcontractors having subcontracts in value equal to or greater than $500,000 shall maintain and keep current their respective DAS Contractor Prequalification Certificates at all times during the term of the Contract and any warranty period set forth in the Contract Documents.

O. CT-DAS Contractor Prequalification Requirements

i. This project is funded in whole or part by State funds, accordingly, any Proposal with a Total Price Proposal of over Five Hundred Thousand Dollars ($500,000.00) shall include as part of its Proposal submission an Update (Bid) Statement and a current “DAS Contractor Prequalification Certificate” (not a predetermination letter) from the DAS. Anticipated Prequalification classification are as follows:

GENERAL BUILDING CONSTRUCTION (GROUP A)
GENERAL BUILDING CONSTRUCTION (GROUP B)
GENERAL BUILDING CONSTRUCTION (GROUP C)
GENERAL TRADES
HISTORICAL BUILDING RESTORATION (MASONRY, ROOFING)
MASONRY
METAL SIDING
ROOFING
WATERPROOFING

ii. Further, any named Subcontractor whose subcontract value is equal to or greater than $500,000 shall hold a current DAS Contractor Prequalification Certificate in the closest applicable Classification of the work that the Subcontractor will complete in the contract and Proposer shall submit as part of its Proposal submission all applicable Subcontractor DAS Prequalification certificates and Update (Bid) Statements.

iii. The Successful Proposer and each of its Subcontractors having subcontracts in value equal to or greater than $500,000 shall maintain and keep current their respective DAS Contractor Prequalification Certificates at all times during the term of the Contract and any warranty period set forth in the Contract Documents.

P. Bid Bond

Each Proposal submitted shall be accompanied by a Proposal Security (a Certified Check or Bid Bond) in the amount of **ten (10) percent** of the Total Proposal Price.

Q. Performance/Payment Bonds

The Proposer to whom a contract is offered, must furnish to the City, if that contract has a total cost greater than $50,000.00, a 100 percent Performance Bond with a surety, and in a form, acceptable to the City. In the City's sole discretion, it may also require a 100 percent Payment Bond and/or other additional security with a surety, and in a form, acceptable to the City.

Attachment A Documents

- ANNUAL STATEMENT OF FINANCIAL INTEREST
- DEBARMENT CERTIFICATION
- CITY OF WATERBURY DISCLOSURE OF OUTSTANDING OBLIGATIONS
- CORPORATE RESOLUTION
- LLC RESOLUTION

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 202__)
Persons or Entities Conducting Business with the City

I. Outstanding Purchase Orders of Contracts with the City

A. Contracts

No Contracts with the City ☐

(Service or Commodity Covered by Contract)

(Term of Contract)

(Service or Commodity Covered by Contract)

(Term of Contract)

(Service or Commodity Covered by Contract)

(Term of Contract)

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 202__)
Persons or Entities Conducting Business with the City

B. Purchase Order(s).

No Purchase Order(s) with the City ☐

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 202__)
Persons or Entities Conducting Business with the City

II. Financial Interest Disclosure

(Public Officials, Employees or Board and Commission Members with interest in Person or Entity Conducting Business with the City)

No Officials, Employees or Board and Commission Members with Financial Interest ☐

(Name of Official)

(Position with City)

(Nature of Business Interest)
(e.g. Owner, Director etc…)

Interest Held By:
Self ☐ Spouse ☐ Joint ☐ Child ☐

(Name of Official)

(Position with City)

(Nature of Business Interest)
(e.g. Owner, Director etc…)

Interest Held By:
Self ☐ Spouse ☐ Joint ☐ Child ☐

1. I certify that this Annual Statement of Financial Interests is a complete and accurate statement of those matter required to be disclosed by me pursuant to §39.061 of the Code of Ordinances.

2. I understand that if I fail to file an Annual Statement (or amendment thereto) or an inaccurate Statement I will be in violation with Chapter 39 of the Code of Ordinance and, thereby, subject to the remedies set forth in §§38.71 and 39.101 of said Code.

3. I understand that I must file with the City Clerk, within fifteen (15) days following any reportable occurrence, any amendments to the Annual Statement.

I have read and agree to the above certification.

_____
(Name of Company, if applicable)

_____ _____
Signature of Individual (or Authorized Signatory) Date

_____
Print or Type Name and Title (if applicable)

DELIVERED | By Mail ☐ Hand-Delivered ☐

City of Waterbury Certification
Regarding
Debarment, Suspension, Ineligibility and Exclusion

If the transaction is Federally funded, in whole or in part (including pass through grants to state and/or municipal government), this certification is required by the regulations implementing one or more Presidential Executive Orders. If this transaction is funded by the State of Connecticut, in whole or in part, this certification is required in accordance with one or more State of Connecticut general statutes.

1. By signing and submitting the attached proposal and/or this document, the prospective lower tier participant, vendor, or contractor is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant, vendor, or contractor knowingly rendered an erroneous certification, in addition to other remedies available to the Federal , State, or City government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant, vendor or contractor shall provide immediate written notice to the person to which the attached proposal and/or this document is submitted if at any time the prospective lower tier participant, vendor or contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction", "principal", "proposal", and "voluntarily excluded", as used herein, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549 and/or State of Connecticut statutes and regulations. You may contact the person to which this proposal and/or this document is submitted for assistance in obtaining a copy of the foregoing.
5. The prospective lower tier participant, vendor or contractor agrees by submitting the attached proposal and/or this document that, should the proposed covered transaction be entered into, it shall not knowingly enter into any covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant, vendor or contractor further agrees by submitting the attached proposal and/or this document that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion-Lower Tier Covered Transactions", without modification, in all covered transaction and in all solicitations for covered transactions.
7. A participant in a covered transaction may rely upon the certification of a prospective participant in a covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may but is not required to, check the Non-procurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required herein. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 herein, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal, State or Municipal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification

(1) The prospective recipient of monies hereby certifies, by submission of its attached proposal and/or by execution of this document, that neither it nor its principles are presently debarred, suspended, proposed for debarment, declared ineligible, disqualified, or voluntarily excluded from bidding or participation in the proposed transaction by any Federal, State, or Municipal department or agency or by the statutes, regulations or ordinances of the foregoing departments and agencies.

(2) Where the prospective recipient of monies is unable to certify to any of the statements in this certification, such prospective participant shall attach a written explanation hereto.

Full Legal Name and address of Recipient, Vendor, or Contractor: _____
_____
_____.

Print Name and Title of Authorized Representative: _____

Signature of Authorized Representative: _____

Date: _____

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

For the purposes of this Disclosure of Outstanding Financial Obligations, the following definitions apply:

(a) "Contract" means any Public Contract as defined below.

(b) "Person" means one (1) or more individuals, partnerships, corporations, associations, or joint ventures.

(c) "Public Contract" means any agreement or formal commitment entered into by the city to expend funds in return for work, labor, services, supplies, equipment, materials or any combination of the foregoing, or any lease, lease by way of concession, concession agreement, permit, or per agreement whereby the city leases, grants or demises property belonging to the city, or otherwise grants a right of privilege to occupy or to use said property of the city.

(d) "City" means any official agency, board, authority, department office, or other subdivision of the City of Waterbury.

State of_____

SS.:_____

County of_____

_____, being first duly sworn, deposes and says that:

1. I am the ***owner, partner, officer, representative, agent or*** _____ of _____(Contractor's Name), the Contractor that has submitted the attached agreement.

2. I am fully informed respecting the preparation and contents of the attached Agreement and of all pertinent circumstances respecting such Agreement;

3. That as a person desiring to contract with the City (check all that apply):

____ The Contractor and each owner, partner, officer, representative, agent or affiliate of the Contractor has filed a list of taxable personal property with the City of Waterbury for the most recent grand list, as required by Conn. Gen. Stat. §12-42.

____ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor are required to file a list of taxable personal property with the City of Waterbury for the most recent grand list, as required by Conn. Gen. Stat. §12-42.

____ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor either directly or through a lease agreement, owes back taxes to the City of Waterbury

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

____ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor either directly or through a lease agreement, has any other outstanding obligations to the City of Waterbury

4. The following list is a list of the names of all persons affiliated with the business of the Contractor, if none state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

Name	Title	Affiliated Company (if none state NONE)	Service or Material	DOB
1				
2				
3				
4				

5. That as a person desiring to contract with the City:

(a) The Contractor or an owner, partner, officer, representative, agent or affiliate of the Contractor provides, or has provided, services or materials to the City within one (1) year prior to the date of this disclosure, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

Name	Title	Affiliated Company (if none state NONE)	Service or Material	DOB
1				
2				
3				
4				

(b) The Contractor possesses an ownership interest in the following business organizations, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized) :

Organization Name	Address	Type of Ownership
1		
2		
3		
4		

(c) The following persons possess an ownership interest in the Contractor. If the Contractor is a corporation, list all of the officers of the corporation and the names of each stockholder whose shares exceed twenty-five

(25) percent of the outstanding stock, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

Name	Title	DOB	Stock %
1			
2			
3			
4			

(d) Of the following of the affiliates, individuals or business entities identified in this affidavit, list each that owns, owned, or within one (1) year prior to the date of this disclosure has owned, taxable property situated in the City of Waterbury, if none state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

Name	Title	Affiliated Company (if none state NONE)	Address	DOB
1				
2				
3				
4				

(e) If the Contractor conducts business under a trade name, the following additional information is required: the place where such entity is incorporated or is registered to conduct such business; and the address of its principal place of business, if none, state none:

TRADE NAME	PLACE OF INCORPORATION/REGISTRY	PRINCIPAL PLACE OF BUSINESS
1		
2		
3		
4		

I hereby certify that the statements set forth above are true and complete, and I understand that any incorrect information or omission of information from this affidavit may result in the immediate termination of the Contractor's agreement with the City of Waterbury.

For Partnership/Sole Proprietor

In presence of:

_____ _____

Witness Name of Partnership/Business

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

By: _____
Name of General Partner/ Sole Proprietor

_____
Address of Business

State of _____)

) SS

County of _____)

_____ being duly sworn,

Deposes and says that he/she is _____ of _____ and that he/she answers to the foregoing questions and all statements therein are true and correct.

Subscribed and sworn to before me this _____ day of _____ 202_.

_____
(Notary Public)

My Commission Expires: _____

For Corporation

_____ _____
Witness Name of Corporate Signatory

_____
Address of Business

Affix
Corporate
Seal

By:_____
Name of Authorized Corporate Officer

Its:_____
Title

CITY OF WATERBURY

DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

State of _____)

) SS

County of _____)

_____ being duly sworn,

deposes and says that he/she is _____ of _____ and that he/she answers to the foregoing questions and all statements therein are true and correct.

Subscribed and sworn to before me this _____ day of _____ 202__.

_____
(Notary Public)

My Commission Expires: _____

CORPORATE RESOLUTION

I, _____, hereby certify that I am the duly elected and acting Secretary of _____, a corporation organized and existing under the laws of the State of _____, do hereby certify that the following facts are true and were taken from the records of said corporation.

The following resolution was adopted at a meeting of the corporation duly held on the _____ day of _____, _____.

"It is hereby resolved that _____ is authorized to make, execute and approve, on behalf of this corporation, any and all contracts or amendments thereof".

And I do further certify that the above resolution has not been in any way altered, amended, repealed and is now in full force and effect.

IN WITNESS WHEREOF, I hereunto set my hand and affix the corporate seal of said _____ corporation this _____ day of _____, 202__.

_____
Secretary

TO BE SIGNED ON DATE OF CONTRACT EXECUTION

LIMITED LIABILTY COMPANY RESOLUTION

I, _____, hereby certify that I am the duly authorized and acting Member / Manager (circle one) of_____, a limited liability company organized and existing under the laws of the State of_____, do hereby certify that the following facts are true and were taken from the records of said LLC.

The following resolution was adopted at a meeting of the LLC duly held on the _____ day of _____, _____.

"It is hereby resolved that _____is authorized to make, execute and approve, on behalf of this LLC, any and all contracts or amendments thereof".

And I do further certify that the above resolution has not been in any way altered, amended, repealed and is now in full force and effect.

IN WITNESS WHEREOF, I hereunto set my hand and affix the company seal of said _____ , LLC this _____ day of _____, 202__.

_____
Manager/Member

.

TO BE SIGNED ON DATE OF CONTRACT EXECUTION

Attachment B Document

- SAMPLE CONTRACT

CONSTRUCTION CONTRACT
RFP Number 7932
for
Sprague Elementary School Roof Replacement
between
City of Waterbury
and

_____

THIS CONTRACT, effective on the date signed by the Mayor, is by and between the CITY OF WATERBURY, City Hall, 235 Grand Street, Waterbury, Connecticut (the "City") and _____, located at _____, a Connecticut Domestic Limited Liability Company (the "Contractor").

WHEREAS, the City's purchases under the Agreement will be funded by monies received by the City through the State of Connecticut, Department of Administrative Services (DAS), Office of School Construction Grants and Review (OSCG&R); and

WHEREAS, the Contractor submitted a bid to the City in response to **Request for Proposal ("RFP") Number 7932** for roof replacement and associated work at Sprague Elementary School using existing architectural designs; and,

WHEREAS, the City accepted the Contractor's bid for **RFP Number 7932;** and

WHEREAS, the City desires to obtain the Contractor's services for roof replacement and associated work at Sprague Elementary School using existing architectural designs pursuant to the terms set forth in this Contract (the "Project").

NOW THEREFORE, THE PARTIES AGREE AND COVENANT AS FOLLOWS:

1. Scope of Services. The Contractor shall furnish all of the labor, services, equipment, materials, supplies, transportation, and incidentals necessary to complete the Project as specified in this agreement (also referred to herein as "Contract") and such shall be completed in a satisfactory manner, as reasonably determined by the City. All labor, services, equipment, materials, supplies, transportation, and incidentals shall comply with **(i)** any and all applicable local, state and federal laws, statutes, ordinances, rules and regulations, including without limitation all notice requirements thereunder, and **(ii)** generally accepted professional standards.

1.1. The Project consists of roof replacement and associated work at Sprague Elementary School using existing architectural designs as detailed and described in the Bid Documents in **Attachment A** and which are hereby made material provisions of this Contract. **Attachment A** shall consist of the following, which are attached hereto,

are acknowledged by the Contractor as having been received, or otherwise hereby incorporated by reference as noted below, and all are made a part hereof:

- Project plans, specifications, drawings, supplementary conditions
- Bid Forms, including the City's Bid documents and the Contractor's responses
- any and all amendment(s) and Change Orders, issued by the City after execution of Contract (incorporated by reference)
- Non-Collusion Affidavit; Debarment Certificate
- Performance Bond and Payment Bond
- Certificates of Insurance
- All applicable Federal, State and local statutes, regulations charter and ordinances (incorporated by reference)
- All permits and licenses (incorporated by reference)

1.2. The entirety of **Attachment A** plus this executed instrument are together deemed the Contract Documents (hereinafter collectively referred to as "Contract Documents"). The City's record copy of the Contract Documents shall control and shall be effective and binding on the Contractor. In the event that any provision in the Contract Documents conflict with any other provision therein, the provision in the component part of the Contract Document first enumerated below shall govern over any other component part which follows it numerically.

i. Contract Amendment(s) and Change Orders
ii. Contract
iii. Contractor's Bid Form
iv. Federal, State, and local laws, regulations, charter and ordinances
v. Technical Specifications
vi. Drawings

2. Representations Regarding Qualification and Accreditation. The Contractor represents that its employees are licensed to perform the scope of work set forth in this Contract. The Contractor further represents that its employees have the requisite skill, expertise and knowledge necessary to perform the scope of work required under the terms of this Contract, including any supplementary work and the City relies upon Contractor's representations.

2.1. Representations regarding Personnel. The Contractor represents that it has, or will secure at its own expense, all personnel required to perform the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the City, unless use of City employees or of personnel having a contractual relationship with the City is approved in writing. As set forth above, all the services required hereunder shall be performed by the Contractor or under its supervision and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under state or local law to perform such services.

2.2. Representations regarding Qualifications. The Contractor hereby represents that, to the extent required by Federal, State and Local statutes, regulations, codes, ordinances, and policies, that the Consultant and/or its employees be licensed, certified, registered, or otherwise qualified, the Consultant and all employees providing services under this Contract, are in full compliance with those statutes, regulations and ordinances. Upon City request, the Consultant shall provide to the City a copy of the Consultant's licenses, certifications, registrations, etc.

3. Responsibilities of the Contractor. The Contractor agrees to properly implement the services required in the manner herein provided. The Contractor shall, in addition to any other responsibilities set forth in this Contract and the Schedules and Attachments hereto, perform the following coincident with the performance of this Contract:

3.1. Due Diligence Obligation. The Contractor acknowledges its responsibilities to examine and to be thoroughly familiar with the City's bid document, including, but not limited to the plans, specifications, drawings and any addenda thereto. The Contractor hereby warrants and represents that prior to the submission of its proposal during the bid process it reviewed or was afforded opportunity, by the City, to review all physical items, facilities, services and functions essential to the satisfactory performance of the services required ("Due Diligence") and thereby certifies that all such items facilities, services and functions are included in this Contract and thereby warrants that:

3.1.1 it conducted or had opportunity to conduct all due diligence prior to the submission of its bid and, accordingly, any additional costs, services or products resulting from the failure of the Contractor to complete Due Diligence prior to submission of its bid proposal shall be borne by the Contractor. Furthermore, the Contractor had the opportunity during the bid process to ask questions it saw fit and to review the responses from the City;

3.1.2 its failure or omission to make investigation and verification of data shall, in no way, be cause for future claim of ignorance of such data or conditions nor shall such failure to investigate and verify be the basis for any claim whatsoever, monetary or otherwise;

3.1.3 it is solely responsible for resolving any issues resulting from its failure to conduct due diligence and it shall assume any and all resulting costs it incurs during the Project;

3.1.4 it was responsible for specifying any changes and disclosing any associated new costs prior to submittal of its bid. In the event the Contractor failed to disclose any such new cost prior to the submittal of its bid, the Contractor hereby covenants that it shall remain solely responsible for, and shall absorb, those non-disclosed costs;

3.1.5 it has familiarized itself with the nature and extent of the Contract Documents, Project, locality, and with all local conditions and Federal, State

and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Project;

3.1.6 it has given the City written notice of any conflict, error or discrepancy that the Contractor discovered in the City's bid documents and other documents for **RFP Number 7932** (collectively "Bid Documents");

3.1.7. it agrees that the Bid Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Project;

3.1.8. it has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Scope of Services which were utilized in the preparation of the plans and specifications;

3.1.9 it has made or caused to be made examinations, investigations, measurements and tests and studies of any applicable reports and related data as it deems necessary for ensuring performance of the Scope of Services at the Contract Price within the Contract Time and in accordance with the other terms and conditions of the Contracts; and certifies no additional examinations, investigations, tests, reports or similar data are or will be required by Contractor for such purposes; and

3.1.10 The Contractor shall not take advantage of any obvious error or apparent discrepancy in the Contract. Notice of any error or discrepancy discovered shall be given immediately in writing to the City, who shall make such corrections and interpretations as it may deem necessary for the completion of the Project in a satisfactory and acceptable manner.

3.2. Safety. Contractor shall perform all work in a safe manner in full compliance with local, state and federal health and safety regulations. Contractor shall immediately correct any dangerous condition caused by or resulting from its work. If it fails to correct, or to act diligently to correct, any condition which the City reasonably believes to be a hazard to persons or property, then immediately upon oral or written notice to any supervisory or similar personnel of Contractor, City may, but shall not be required to, correct same at Contractor's expense. City shall confirm to Contractor in writing any oral notice given within five (5) business days thereafter.

3.3. Storage. In the event the Project site has insufficient, inadequate, and/or improper storage space, it shall be the responsibility of the Contractor to secure, provide and maintain at the Contractor's sole cost and expense **(i)** adequate off-site storage space for equipment, materials, incidentals, etc., and **(ii)** all associated delivery and transportation services. In either event, the Contractor shall assume full responsibility for equipment, materials, incidentals, etc. until both title and risk of loss pass to the City pursuant to Section 8 of this Contract.

3.4. Working Hours. To the extent the Contractor is required to be on City property to render the Contractor's services hereunder, the Contractor shall coordinate its schedule so that work on and at the Project site is performed during the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturday, Sunday and legal holidays unless more exactly specified elsewhere in this Contract or **Attachment A** or unless prior written permission is obtained from the City to work during other times. This provision shall not excuse the Contractor from timely performance under the Contract.

3.5. Cleaning Up. The Contractor shall at all times keep the Project site free from accumulation of waste materials or rubbish caused by Contractor's employees or subcontractors, and at the completion of the work shall remove all rubbish from and about the Project and all tools, scaffolding and surplus materials and shall leave the Project site "broom clean" or its equivalent, unless more exactly specified. In case of dispute, the City may remove the rubbish and charge the cost to the Contractor.

3.6. Publicity. Contractor agrees not to deliberately disclose the fact that the City has entered into or terminated this Contract or disclose any of the terms of the Contract or use the City's name in connection with any publicity, unless the City gives prior written consent to such use of the City's name in each instance.

3.7. Standard of Performance. All Contractor labor, materials, supplies, components, equipment, reports, plans, specifications, drawings, deliverables, incidentals, etc., required to be furnished or delivered under this Contract shall conform in all respects with the requirements set forth in this Contract and shall meet or exceed those standards generally recognized in the Contractor's craft and trade in the State of Connecticut. City specified manufacturer and/or brand name substitution desired by the Contractor shall be made only with the prior written consent of an authorized representative of the City's Using Agency.

> **3.7.1** In carrying out the Project, the Contractor must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor, nor with the normal routine of the institution or agency operating at the Project site.

3.8. **Contractor's Employees.** The Contractor shall at all times enforce strict discipline and good order among its employees, and shall not employ on the work any unfit person or anyone not skilled in the work assigned. The Contractor shall not, without the prior written approval of the City's Using Agency, substitute, terminate, replace or otherwise remove any Contractor employee expressly named, identified or required in this Contract.

3.9. Subsurface/Unknown Site Conditions. If Project site conditions are encountered which are **(i)** subsurface or otherwise concealed physical conditions or other conditions which differ materially from those indicated in the Contract

Documents, or **(ii)** unknown conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent or common in construction activities of the character provided for in this Contract, then prompt notice by the observing party shall be given to the other party to this Contract before Project site conditions may be disturbed. The Contractor shall thereafter wait for written instructions from the City before proceeding with regard to such conditions.

3.10. Surveys. All surveys required under this Contract shall be performed by a State of Connecticut duly licensed land surveyor. Unless expressly stated to the contrary in Section 1 of this Contract and **Attachment A**, the Contractor shall perform all layout work, all field measurements and all construction staking required, necessary or prudent for the satisfactory prosecution of the Contractor's obligations under this Contract.

3.11. Permits and Licenses. Unless expressly stated to the contrary in Section 1 of this Contract and **Attachment A**, the Contractor shall secure and obtain all permits and all licenses required, or necessary, or prudent for the performance of the Contractor's obligations under this Contract, and for the City's occupancy, use, and operation of the Project.

3.12. Manufacturer's Directions. Where it is required in this Contract that materials, products, processes, equipment or the like be installed or applied in accord with manufacturer's directions, specifications or instructions, it shall be construed to mean that the said application or installation by the Contractor shall be in strict accord with printed instructions furnished by the manufacturer of the material concerned for use under conditions similar to those at the Project site. One (1) copy of such instructions shall be furnished to the City.

3.13. Review by the City. The Contractor shall permit the City and the City's duly authorized representatives and agents to review, at any time, all work performed under the terms of this Contract at any stage of the Project.

3.14. Records Maintenance. The Contractor shall maintain or cause to be maintained all records, books or other documents relative to charges, costs, expenses, fees, alleged breaches of the Contract, settlement of claims or any other matter pertaining to the Contractor's demand for payment.

4. Responsibilities of the City and City Reservation of Rights. Upon the City's receipt of Contractor's written request for specific information, the City will provide the Contractor with existing documents, data and other materials the City agrees are necessary and appropriate to the services to be performed by the Contractor hereunder and the City will endeavor to secure, where feasible and where the City agrees it is necessary and appropriate, materials or information from other sources requested by the Contractor for the purpose of carrying out the services under this Contract.

4.1. The City may, in its sole discretion, designate person(s) to act as the City's Project Engineer(s) and/or Manager(s) and the City may, in its sole discretion, define such person(s) authority and responsibilities.

4.2. The City reserves the right to **(i)** perform work related or unrelated to the Project with the City's own forces adjoining, adjacent to, or in the vicinity of, the Project site and/or **(ii)** let separate contracts related or unrelated to the Project for work and services adjoining, adjacent to, or in the vicinity of, the Project site. In such event, the Contractor shall afford all such parties reasonable opportunity for storage of materials and equipment and for the uninterrupted provision and delivery of such parties' work and/or services. The Contractor shall cooperate with such parties and in the case of a dispute, the decision of the City shall be complied with by all.

5. Contract Time. Contract Time. The Contractor shall Substantially Complete all work and services required under this Contract within **seventy five (75) consecutive calendar days** of the City's written Notice to Proceed and shall reach Final Completion within **one hundred twenty (120) consecutive calendar days** of the City's written Notice to Proceed ("Contract Time").

5.1. Within one (1) week of the City's issuance of its written notice to proceed, and prior to the commencement of any work on the Project site, the Contractor shall submit for the City's written approval a construction progress schedule. On a monthly basis, the Contractor shall deliver to the City a written status report setting forth an analysis and critique of the Contractor's compliance with said schedule.

5.2. Delay Damages

5.2.1 Time is and shall be of the essence for all Project Phase Completion Dates, Milestones, Substantial and Final Completion Date. The Contractor further agrees that the Project shall be prosecuted regularly, diligently and uninterruptedly and at such rate of progress as will insure full completion thereof within the Contract time stated above. It is expressly understood and agreed, by and between the Contractor and City, that the Phase Completion Dates, Milestones, Substantial and Final Completion Date are reasonable for the completion of the Project.

5.2.1.1 The Contractor shall pay to the City the sum of Five Hundred Dollars ($500.00) per calendar day for each and every calendar day for which the Contractor is in default in completing the work beyond the Final Completion Date, Substantial Completion Date, Milestones and Phase Completion Dates, as set forth in Section 5, or the actual damages incurred by the City caused by the delay. The preceding sum is hereby agreed upon not as a penalty, but as delay damages for the delay that the City shall suffer due to such default.

5.2.1.2 The City shall have the right to recover all damages pursuant to any remedy at law or equity including but not limited to deducting the amount of any such damages from any monies due the Contractor under this Contract. The Contractor understands that if the entire Work or of any portion of the Work that the City has agreed to accept separately, if any, is not attained by the applicable completion dates as set forth in the entire Section 5, the City will suffer damages, which are difficult to specify accurately and ascertain. Delay damages based upon delay shall be assessed to compensate the City for all actual loss sustained by the delay, including, but not limited to, loss of use, increased cost of material or services to complete the project, loss of State funding, all other another actual expense, and all other damages allowed by law, including attorney's fees.

5.3 No Damage for Delay

In no event shall the Contractor be entitled to any compensation or recovery of any damages in connection with any Delay, including, without limitation, consequential damages, lost opportunity damages, attorney's fees or other, similar remuneration. The City's exercise of any of its rights or remedies under the Contract Documents, including without limitation, ordering changes in the Work, or directing suspension, rescheduling or correction of the Work, regardless of the extent or frequency of the City's exercise of these rights has been contemplated by the parties and shall not be construed as an exception.

6. Compensation. The City shall compensate the Contractor for satisfactory provision of all of the goods and services set forth in this Contract as follows in this Section 6. No claims for additional compensation will be considered for conditions made known to the Contractor prior to bidding. No claims for additional compensation will be considered on account of failure of the Contractor to completely inform itself as required herein above.

6.1. Fee Schedule. Subject to retainage, limitations, etc. set forth below in this Section 6, the fee payable to the Contractor shall not exceed _____ (hereafter referred to as "Total Compensation") with the basis for payment being Contractor's Bid set forth in **Attachment A's** "Contractor's Bid, dated _____", which is summarized below:

[insert compensation terms]

6.2. Retainage. At the City's sole discretion, it hereby reserves the right to withhold as retainage 5% percent of any payment (or monetary sum otherwise required by law) owed to the Contractor to be withheld from payments to the Contractor otherwise payable to the Contractor until such time as the Contractor's work and services to be

provided under this Contact are fully completed and accepted in writing by the City. The retainage does not does not include additional sums that the City may withhold due to the Contractor's failure to comply with provisions of this Contract.

6.3. Limitation of Payment. Compensation to the Contractor is limited to those fees set forth in Section 6.1. of this Contract and is further limited to work **(i)** performed in fact, **(ii)** conforming with this Contract, and **(iii)** accepted in writing by a duly authorized City employee. Such compensation shall be paid by the City upon its review and approval of the Contractor's invoices for payment and review of the Contractor's work.

6.3.1 Funding. In the event this Contract is funded, in whole or in part, by Federal and/or State monies, grants, loans, etc, all City payment(s) shall fully comply with all relevant Federal and State statutes and regulations. In the event this Contract is 100% funded by Federal and/or State monies, grants, loans, etc., the aggregate sum of all City payments shall not exceed the aggregate sum of such funding.

This Contract pertains to a project funded in whole or in part, by monies received by the City through the State of Connecticut, Department of Administrative Services (DAS), Office of School Construction Grants and Review (OSCG&R).

Contractor is required to comply with all applicable Federal statutes, executive orders, regulations, rules and interpretive guidance issued by the U.S. Treasury Department, U.S. Office of Management and Budget or any other Federal agency.

This Contract is subject to 2 C.F.R. Part 180 OMB Guidelines to Agencies on Government Debarment and Suspension and the U.S. Treasury's implementing regulations set forth at 31 C.F.R. Part 19 Government Debarment and Suspension.

A listing of Federal Requirements and Representations that Contractor must comply with are set forth in Attachment A to this Contract.

6.3.2 The Contractor and its affiliates are hereby provided with notice that the City reserves the right, in the City's sole discretion, to offset, withhold, or otherwise reduce City payment(s) to the Contractor, in an amount equaling the sum or sums of money the Contractor and/or its affiliates is/are, or become delinquent or in arrears on, regarding the Vendor's and/or its affiliates real and personal property taxes and other payment obligations to the City.

6.4. Bid Costs. All costs of the Contractor in preparing its bid for **RFP Number 7932** shall be solely borne by the Contractor and are not included in the compensation to be paid by the City to the Contractor under this Contract or any other agreement.

6.5. Payment for Services, Materials, Appliances, Employees. The Contractor shall be responsible to the City for the suitability of services, materials and equipment furnished to comply fully with the requirements set forth in this Contract. The Contractor shall promptly pay all employees as their pay falls due, shall pay promptly as they fall due all bills for subcontractors, materials, supplies and services going into the work, and all bills for insurance, bonds, Worker's Compensation coverage, Federal and State Unemployment Compensation, and Social Security charges applicable to this Project. Before final City payment is made, the Contractor shall furnish to the City a sworn, notarized, affidavit stating that all of the foregoing payment obligations have been fully completed.

6.6. Liens. Neither the City's final payment nor any part of the retained percentage, if any, shall become due until the Contractor, if required by the City, shall deliver to the City a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof, and, if required, in either case, an affidavit that so far as the Contractor has knowledge or information, the releases and receipts include all the labor and material for which a lien could be filed; but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the City, to indemnify it against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the City all moneys that the City may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

6.7. Contractor's Certificate of Completion. Upon the Contractor's **(i)** completion of all Project milestones, and **(ii)** Substantial Completion of the Project, and **(iii)** Final Completion of the Project, the Contractor shall, in each instance, file with the City a written, notarized affidavit setting forth the amount of Project work performed. The City reserves the right to verify or challenge by any reasonable means the accuracy of said affidavit.

6.8. Final Payment. All prior estimates and City payments, including those relating to extra or additional work, retainage(s), and holdback(s), shall be subject to correction by this final payment which is throughout this Contract called "Final Payment". No payment, final or partial, shall act as a release to the Contractor or its surety from any Contractor obligation(s) under this Contract.

6.9. Clean Water Fund Project Requirements. In the event this Contract is funded in whole or in part, is reliant upon, or falls within the jurisdiction of the Clean Water Fund and its statutes, regulations and rules, the Contractor shall:

6.9.1 submit Applications for Payment in accordance with the following:

The City must receive the Contractor's Application for Payment by the City's or its designee's, review and recommendation for payment, by the fifteenth calendar day of the month to receive payment within the next 50 days. If not received by the fifteenth calendar day of the month, payment can not be made until 50 days after the fifteenth calendar day of the subsequent month. The Contractor shall provide at the City's request, reasonable documentation to substantiate Contractor's Application for Payment.

6.9.2 Progress and Final Payments

The City will make progress payments on account of the Contract Price on the basis of the Contractor's Applications for Payment, monthly during construction as provided below. All progress payments will be on the basis of the progress of the Scope of Services as determined by the City, according to the schedule of values provided for in the Contract Documents, and approved by the City. Prior to Substantial Completion, progress payments will be limited to an amount equal to 95 percent of the value of the Scope of Services completed. Upon Substantial Completion, the City will pay the amount as specified in the Contract Documents.

7. Warranty of the Contractor. The Contractor warrants to the City that all materials, supplies, components, equipment, etc. furnished under this Contract shall be new and of good quality, except as otherwise expressly stated and permitted by the City elsewhere in this Contract. The Contractor warrants that none of its work shall be defective. The Contractor shall be liable to repair and install and/or replace without charge any service, component, equipment or part thereof which is defective or does not conform with this Contract within the greater of **(i)** 730 calendar days after the City delivers its written notice of its acceptance of the Project and statement therein establishing the final completion date, or **(ii)** that time period or date expressly stated elsewhere in this Contract or **Attachment A**. The City shall also receive the full benefit of the Manufacturing Warranty included in Attachment A hereto.

7.1. The Contractor further warrants that all materials, supplies, services, components, equipment, reports, plans, drawings, deliverables, incidentals, etc., shall be free from any and all defects caused by faulty design, faulty material or poor workmanship. The Contractor shall supply to the City copies of any written manufacturer's warranties and guarantees. The Contractor's foregoing warranty obligations are in addition to, and not a limitation of, all manufacturer's warranties and guarantees, and any other remedy stated in this contract or otherwise available to the City under applicable law.

8. Passing of Title and Risk of Loss.

8.1. City beneficial use of Project equipment, materials, site-work, etc. prior to the Contractor's final completion of the Project or prior to the City's final payment for the Project shall neither act to vest title in the City nor act to transfer risk of loss from the

Contractor to the City. Said title and risk shall pass to the City upon the City's final payment for the Project.

8.2. Contractor and its insurer shall assume the risks of loss or damage to the equipment up to and including the date title passes, except that City shall be responsible for loss or damage caused by City's gross negligence.

8.3. After Project equipment, materials, etc. are delivered to the Project work-site and become operable or functional, the Contractor shall not thereafter remove any such equipment, materials, etc. from the Project work-site without securing the prior written consent of an authorized City Using Agency employee.

9. Indemnification.

9.1. The Contractor shall indemnify, defend, and hold harmless the City, City's Boards, and Board of Education, commissions, agents, officials and employees from and against all claims, suits, damages, losses, judgments, costs and expenses including attorney's fees arising out of or resulting from the delivery of the labor, services, equipment, materials, reports, plans, specifications, design, drawings, deliverables, incidentals, etc. provided that any such claims, suits, damages, losses, judgments, costs or expenses **(i)** are attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including the loss of use resulting there from, **(ii)** are alleged to be caused in whole or in part by any willful, intentional, negligent, or reckless act or omission of the Contractor, its employees, any subcontractor or consultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder; **(iii)** enforcement action or any claim for breach of the Contractor 's duties hereunder or **(iv)** claim for intangible loss(es) including but not limited to business losses, lost profits or revenue, regardless of whether or not it is caused in part by a party indemnified hereunder.

9.2. In any and all claims against the City, Board of Education or any of City's boards, agents, employees or officers by the Contractor or any employee of the Contractor , any subcontractor or consultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 9 above, shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under Worker's Compensation Acts, disability benefit acts or other employee benefit acts.

9**.3**. The Contractor understands and agrees that any insurance required by this Contract, or otherwise provided by the Contractor , shall in no way limit the responsibility to indemnify, defend, keep and hold harmless the City, the Board of Education, any of City's boards, agents, employees as provided in this Contract.

9.4. The Contractor expressly understands and agrees that any performance bond or insurance protection required by this Contract, or otherwise provided by the Contractor, shall in no way limit the responsibility to indemnify, keep and save harmless and defend the City and the City's boards, agents, employees or officers as provided herein.

9.5. Royalties and Patents. The Contractor shall, for all time, secure to the City the free and undisputed right to the use of any and all patented articles and methods used in the work and shall defend at Contractor's own expense any and all suits for infringement or alleged infringement of such patents, and in the event of adverse award under patent suits, the Contractor shall pay such awards and hold the City harmless in connection with any patent suits that may arise as a result of installations made by the Contractor and as to any award made thereunder.

9.6. In the event this Contract and/or the Contractor's, or its subcontractor, work and services provisioned hereunder is/are subject to the provisions of any Federal or State statute or regulations, or the City Charter or City Ordinance, the Contractor shall indemnify, defend and hold harmless the City from any fine, penalty or other amounts imposed on the City under said statutes, regulations, Charter or Ordinances, if caused by Contractor, or its subcontractor, omission or commission.

10. Contract Bonds. The Contractor shall furnish to the City, prior to the execution of this Contract by the City, both a performance bond and a payment bond, each bond written for a penal sum equaling the Section 6 "Total Compensation" amount in a form and with a surety acceptable to the City. The bonds shall continue in effect for the greater of **(i)** the warranty period set forth in Section 7 of this Contract, or **(ii)** 365 calendar days after the Final Completion Date referenced elsewhere in this Contract.

11. Contractor's Insurance.

11.1. The Contractor shall not commence work under this Contract until all insurance required under this Section 11 has been obtained by the Contractor and such insurance has been approved by the City. The Contractor shall not allow any subcontractor to commence work on any subcontract until all insurance required of any such subcontractor has been so obtained and approved by the City. Insurance shall be provided by insurers, satisfactory to the City and authorized to do business in the State of Connecticut, an "A-" Best's Rating and at least a Class V3 or better financial size category as shown in the most current A.M. Best Company ratings.

11.2. At no additional cost to the City, the Contractor shall purchase and maintain the insurance coverages set forth below which shall protect the City from claims which may arise out of or result from the Contractor's obligation under this Contract, whether such obligations are the Contractor's or subcontractor or person or entity directly or indirectly employed by said Contractor or subcontractor, or by any person or entity for whose acts said Contractor or subcontractor may be liable.

11.3. Each insurance policy shall state that the insurance company shall agree to investigate and defend the insured against all claims for damages, even if groundless. If any insurance required herein is to be issued or renewed on a claims made form as opposed to an occurrence form, the retroactive date for coverage shall be no later than the commencement date of this Contract and shall provide that in the event of cancellation or non-renewal, the discovery period for insurance claims ("Tail Coverage") shall be available for at least 60 months.

11.4. The following policies with stated limits shall be maintained, in full force and effect, at all times during which the services are to be performed by the Contractor:

11.4.1 General Liability Insurance: $1,000,000.00 per occurrence, **$2,000,000.00** aggregate and **$2,000,000.00** Products and completed operations aggregate
Providing coverage to protect the City for all damages arising out of bodily injuries, sickness to or death of all persons in any one accident or occurrence and for all damages arising out of destruction of property in any one accident or occurrence.

11.4.2 Automobile Liability Insurance: **$1,000,000.00** combined single limit (CSL) each Accident
Providing coverage to protect the City with respect to claims for damage for bodily injury and or property damage arising out of ownership, maintenance, operation, use or loading and unloading of any auto including hired & non-owned autos.

11.4.3 Workers' Compensation: Statutory Limits within the State of Connecticut: Employers' Liability:
EL Each Accident **$500,000.00**
EL Disease Each Employee **$500,000.00**
EL Disease Policy Limit **$500,000.00**

Contractor shall comply with all State of Connecticut statutes as it relates to workers' compensation.

11.4.4 Excess/Umbrella Liability Insurance: Excess or Umbrella insurance coverage that follows form or sits over General Liability, Automobile Liability and Workers Compensation insurances**. $1,000,000.00** each occurrence and **$1,000,000.00** Aggregate.

11.4.5 Contractors Pollution Liability Insurance: $1,000,000.00 each claim, **$1,000,000.00** aggregate coverage.
The foregoing per claim coverage plus appropriate aggregate coverage depending on the size of the job for contractor caused pollution events such as

asbestos or lead abatement, but not limited to only these pollution causes of loss.

11.5. Failure to Maintain Insurance: In the event the Contractor fails to maintain the minimum required coverage as set forth herein, the City may at its option purchase same, and offset the Contractor's invoices for the cost of said insurance.

11.6. Cancellation: The City of Waterbury shall receive written notice of cancellation from the Contractor at least thirty (30) calendar days prior to the date of actual cancellation, regardless of the reason for such cancellation.

11.7. Certificates of Insurance: The Contractor's General, Automobile, Builder's Risk and Excess/Umbrella Liability Insurance policies shall be endorsed to add the City and Board of Education as an additional insured and provide waiver of subrogation on all policies except Builder's Risk and Pollution Liability. The insurance afforded the additional insured shall be primary and non-contributory insurance and the coverage and limits provided under the Contractor's policies shall not be reduced or prorated by the existence of any other insurance applicable to any loss the additional insured may have suffered. Prior to the execution of this Contract by the City, the Contractor shall furnish to the City, subject to City approval, certificate(s) of insurance and Additional Insured Endorsement and Waiver of Subrogation Endorsement verifying the above coverages, including the naming of the City of Waterbury, as follows: **"The City of Waterbury and Board of Education are listed as additional insured on all lines of coverage except Pollution Liability and waiver of subrogation applies to all lines of coverage except Pollution Liability and Builder's Risk as their interest may appear".** The City's Invitation to Bid Number must be shown on the certificate of insurance to assure correct filing. The Contractor must supply replacement/renewal certificates at least 30 days prior to the expiration of the policy(ies). Said certificates shall contain a provision that coverage afforded under the policies shall not be cancelled or reduced for any reasons unless notice of than thirty (30) calendar days has been mailed to the City's Using Agency and a copy to the City's Office of Corporation Counsel, 235 Grand Street, Waterbury, CT 06702.

11.8. No later than thirty (30) calendar days after Contractor receipt, the Contractor shall deliver to the City a copy of the Contractor's insurance policies and endorsements and riders.

12. Conformance with Federal, State and Other Jurisdictional Requirements. By executing this Contract, the Contractor represents and warrants that, at all pertinent and relevant times to the Contract, it has been, is and will continue to be in full compliance with all applicable statutes, acts, ordinances, guidelines, resolutions, orders, judgments, decrees, injunctions, rules, and regulations of all government authorities applicable to performance by the Contractor of services hereunder, including those having jurisdiction over its registration and licensing to perform services hereunder; including, but not limited to, the following: EQUAL EMPLOYMENT OPPORTUNUTY; COPELAND ANTI-KICKBACK ACT, as

supplemented in the Department of Labor Regulations (29 CFR, Part 3); DAVIS BACON ACT as supplemented by Department of Labor Regulations (29 CFR Part 5); Section 103 and 107 of the Contract Work Hours and Safety Standards Act, as supplemented by the Department of Labor Regulations (29 CFR Part 5); the HOUSING and COMMUNITY DEVELOPMENT ACT of 1974, as amended; TITLE 31 and Section 12-430(7) of the State of Connecticut General Statutes. All applicable sections of the City Charter and Code of Ordinances are incorporated by reference made a part hereof.

12.1. Taxes-Federal, State and Local. The City is exempt from Federal Excise and Transportation, State and Local Sales and Use Taxes, including without limitation, taxes that would otherwise be imposed upon the Contractor for transactions required or necessitated hereunder between it and its subcontractors, suppliers, etc. The Contractor remains liable, however, for any applicable tax obligations it incurs. Moreover, the Contractor represents that the bid and pricing contained in this Contract do not include the amount payable for said taxes.

12.2. Labor and Wages-Federal and State. The Contractor and its subcontractors shall conform to Federal and State of Connecticut labor laws, and all other laws, ordinances, and legal requirements affecting the work in Connecticut.

12.2.1 The Contractor is aware of, and shall comply with, the provisions of Title 31, §53 of the Connecticut General Statutes, latest revision (the "Act"), concerning the payment of minimum wages for work on public facilities. The provisions of the Act are hereby incorporated by reference and made a part of this Contract. The Act provides that the Connecticut prevailing wage law applies to certain remodeling, refurbishing, alteration, repair and new construction. The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in Conn.Gen.Statute 31-53(i), shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each pay day.

12.2.2 The Contractor is aware of, and shall comply with, the provisions of the Federal Davis-Bacon Act, the American Rescue Plan Act of 2021 (ARPA) and the Federal American Recovery and Reinvestment Act of 2009, the provisions of all acts hereby incorporated by reference and made a part of this Contract. The Federal Davis-Bacon Act provides that Federal wage rate laws apply to certain federally funded contracts. The American Recovery and Reinvestment Act ("ARRA") and the American Rescue Plan Act of 2021 provides that

Federal wage rate laws apply to all such funded contracts regardless of the contract's dollar value.

12.3. Compliance with Chapters 34, 38, and 39 of the Code of Ordinances of the City. By executing this Contract, the Contractor represents and warrants that, at all pertinent and relevant times to the Contract, it has been, is and will continue to be in full compliance with the provisions of Chapters 34, 38, and 39 of the Code of Ordinances of the City and well as any other relevant provisions of the Charter and the Code of Ordinances.

12.4. Compliance with CONN. GEN. STAT. § 4a-60g, as amended by June 2015 Special Session Public Act 15-5.

12.4.1 Definitions – For purposes of this paragraph:

i. "Small contractor" means any contractor, subcontractor, manufacturer, service company or nonprofit corporation (A) that maintains its principal place of business in the state, (B) that had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year prior to such application, and (C) that is independent. "Small contractor" does not include any person who is affiliated with another person if both persons considered together have a gross revenue exceeding fifteen million dollars.

ii. "Minority business enterprise" means any small contractor (A) fifty-one per cent or more of the capital stock, if any, or assets of which are owned by a person or persons who (i) exercise operational authority over the daily affairs of the enterprise, (ii) have the power to direct the management and policies and receive the beneficial interest of the enterprise, (iii) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, and (iv) are members of a minority, as such term is defined in subsection (a) of section 32-9n, or are individuals with a disability, or (B) which is a nonprofit corporation in which fifty-one per cent or more of the persons who (i) exercise operational authority over the enterprise, (ii) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, (iii) have the power to direct the management and policies of the enterprise, and (iv) are members of a minority, as defined in this subsection, or are individuals with a disability.

iii. "Municipal public works contract" means that portion of an agreement entered into on or after October 1, 2015, between any individual, Contractor or corporation and a municipality for the construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees but excluding any project of

an alliance district, as defined in section 10-262u, as amended by this act, financed by state funding in an amount equal to fifty thousand dollars or less.

12.4.2 The Contractor and subcontractor shall comply with the specific requirements of the State of Connecticut Set Aside Program, CONN. GEN. STAT. § 4a-60g, as amended by June 2015 Special Session Public Act 15-5, if the municipal public works contact awarded to the Contactor is funded in whole or in part by state funds.

13. Discriminatory Practices. In performing this Contract, the Contractor shall not discriminate against any employee or applicant for employment, with respect to his or her hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, sex, age, religious creed, disability, national origin or ancestry, marital status, family status, prior psychiatric treatment, health care, military status or source of income or because of a handicap that is unrelated to the employee's or the applicant's ability to perform the duties of a particular job or position. Subcontracts with each subcontractor shall contain a provision requiring non-discrimination in employment as herein specified. This covenant is required pursuant to §93.04 of the Code of Ordinances of the City and any breach thereof may be regarded as a material breach of this Contract. Said provisions with subcontractors shall require conformity and compliance with all local, state and federal laws, rules and regulations and Executive orders pertaining to discrimination and equal opportunity requirements.

13.1. Discrimination Because of Certain Labor Matters. No person employed on the work covered by this Contract shall be discharged or in any way discriminated against because such person has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or related to the labor standards applicable hereunder to its employer.

13.2. Equal Opportunity. In its execution of the performance of this Contract, the Contractor shall not discriminate and shall comply with applicable laws prohibiting discrimination on the grounds of race, color, religion, sex, national origin or citizenship status, age or handicap. The Contractor agrees to comply with all local, state and federal laws, rules and regulations and Executive orders pertaining to discrimination and equal opportunity requirements, and will require the same of all subcontractors

13.3. Contractor Affirmative Action.

13.3.1. Pursuant to CONN. GEN. STAT. § 4a-60, as amended by June 2015 Special Session Public Act 15-5, the following are required for every Municipal Public Works Contract:

(a) Every contract to which an awarding agency is a party, every quasi-public agency project contract and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut; and the contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved;

(2) The contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission on Human Rights and Opportunities;

(3) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(4) The contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, as amended by this act, 46a-68e, 46a-68f and 46a-86; and

(5) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and section 46a-56, as amended by this act.

(b) If the contract is a public works contract, municipal public works contract or contract for a quasi-public agency project, the contractor agrees and warrants that he or she will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works or quasi-public agency project.

13.3.2. Pursuant to CONN. GEN. STAT. § 4a-60a, as amended by June 2015 Special Session Public Act 15-5, the following are required for every Municipal Public Works Contract:

(a) Every contract to which an awarding agency is a party, every contract for a quasi-public agency project and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or of the state of Connecticut, and that employees are treated when employed without regard to their sexual orientation;

(2) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(3) The contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said commission pursuant to section 46a-56; and

(4) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor which relate to the provisions of this section and section 46a-56.

14. Good Jobs Ordinance

14.1. Conformance With An Ordinance Concerning The Hiring Of Waterbury Residents On Certain Publicly-Funded Construction Projects.

14.1.1 The Contractors and its Subcontractors shall comply with the specific requirements of "An Ordinance Concerning the Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects" (the "Good Jobs Ordinance"), as may be amended from time to time and as set forth in Chapter 34 of the Code of Ordinances of the City. While the principal provisions of the ordinance are summarized as set forth in paragraphs C-H below, the Contractor

does hereby acknowledge that it has reviewed a copy of the Good Jobs Ordinance and that it has read the Ordinance and that Contractor is familiar with the obligations imposed on the Contractor and each Subcontractor by the Good Jobs Ordinance.

14.1.2 Failure of the Contractor or its Subcontractors to comply with the Good Jobs Ordinance shall be a material breach of this Agreement.

14.1.3 This paragraph shall apply to a Covered Project, as that term is defined in the Good Jobs Ordinance, in the City with a value of $500,000.00 or greater and only to the extent permitted by federal and state law.

14.1.4 Definitions. For purposes of this paragraph:

i. "Administrator" shall be defined as it is in the Good Jobs Ordinance.

ii. "Apprentice" shall be defined as it is in the Good Jobs Ordinance.

iii. "Basic Skilled Worker" shall be defined as it is in the Good Jobs Ordinance.

iv. "Contractor" shall be defined as it is in the Good Jobs Ordinance.

v. "Covered Project" shall be defined as it is in the Good Jobs Ordinance.

vi. "Hiring Goal" shall be defined as it is in the Good Jobs Ordinance.

vii. "Resident" shall be defined as it is in the Good Jobs Ordinance.

viii. "Subcontractor" shall be defined as it is in the Good Jobs Ordinance and shall include the Contractor's direct subcontractor providing construction work and all lower tiered (level) providers of construction work.

14.1.5 Hiring Goals. If this Agreement requires the Contractor to perform work on a Covered Project, the Contractor and each Subcontractor shall have as its hiring goals:

i. at least thirty percent (30%) of its total worker hours performed by City Residents, and

ii. at least twenty-five percent (25%) of construction trade jobs shall go to Apprentices and/or Basic Skilled Workers, and

iii. at least seventy percent (70%) of all "new hires" (as that term is defined in the Good Jobs Ordinance) shall be "economically disadvantaged" individuals (as that term is defined in the Good Jobs Ordinance), and

iv. a minimum of five percent (5%) of the construction workforce labor hours will be local resident, minority artisans, and

v. a minimum of five percent (5%) of the construction workforce labor hours will be women, and

vi. a minimum of ten percent (10%) of the total work hours shall be allocated for minorities, or

vii. as may otherwise be required by any superseding Federal or State employment discrimination prohibition laws.

14.1.6 Good Faith Efforts. The Contractor and each Subcontractor shall engage in Good Faith Efforts to comply with the Hiring Goals. For the purposes of this paragraph, the term "Good Faith Efforts" shall have the same meaning as it does in the Good Jobs Ordinance.

The Contractor and each Subcontractor shall individually implement Good Faith efforts to satisfy the Hiring Goals.

14.1.7 Action Plan and Pre-Construction Meeting. Not later than fourteen (14) business days prior to the scheduled commencement date for construction, the Contractor shall submit a written plan-of-action to the City and to the Administrator of the Good Jobs Ordinance defining how the Contractor, and each Subcontractor, shall implement Good Faith Efforts to fulfill the Hiring Goals. Each plan-of-action shall include the anticipated number of job positions required for the Work. Not later than five (5) business day prior to the commencement date of construction, the Contractor must attend a mandatory "pre-construction" meeting with the City to review all plans-of-action and other relevant materials. No construction work shall proceed absent this pre-construction meeting.

14.1.8 Other Contractor Obligations. In addition to the foregoing, the Contractor shall ensure that all Subcontractor contracts and agreements expressly set forth and state as binding obligations therein, subject to appropriate party name change, the above Hiring Goals and Good Faith Efforts. The Contractor shall be accountable for, and liable to the City for, Contractor and each Subcontractor compliance with Hiring Goals and Good Faith efforts.

i. The Contractor shall meet with the Administrator no less than four (4) weeks prior to the commencement of construction on a Covered Project and provide the Administrator with the number of job positions to be created by the project by trade and the qualifications by job tile.

ii. The Contractor shall be required to produce Contractor and Subcontractor documentation that may be required under the provisions of the Good Jobs Ordinance or that the City or the Administrator reasonably believes will assist the City or the Administrator with their evaluation of Hiring Goals and Good Faith Efforts.

iii. The Contractor shall deliver weekly certified payroll records to the City within five (5) working days of the end of each payroll period. Moreover, the Contractor shall require each Subcontractor to create weekly certified payroll records.

iv. The Contractor's and each Subcontractor's payroll records shall include the person-hours, the residential address, race, gender, hiring date, and apprentice (job) classification of all personnel employed under this Agreement and all Contracts and Sub-Contracts thereunder. The Contractor and each Subcontractor shall mark their respective final payroll period records as being final and be signed by an authorized officer or employee.

14.2 Liquidated Damages Applicable To Section 14.1

14.2.1 If the City finds that the Contractor, or a Subcontractor, has failed to achieve Hiring Goals during any five (5) day work period (Monday through Friday), the City shall:

i. issue a written notice to the Contractor specifying the matters constituting such failure and the time period within which Good Faith Efforts documentation must be delivered to the City for its evaluation.

ii. if the Good Faith documentation is not provided or, if provided, it fails to demonstrate compliance with Good Faith Efforts, the Contractor shall, for each failure by the Contractor or a Subcontractor to achieve the Hiring Goals during a full five day work period, pay to the City one thousand dollars ($1,000.00) as liquidated damages.

14.2.2 If the City finds that the Contractor, or a Subcontractor, has failed to deliver weekly certified payroll records to the City within five (5) working days of the end of each payroll period the Contractor shall, as liquidated damages pay one thousand dollars ($1,000.00) to the City for each week of ongoing violation.

14.2.3 The City shall provide the Contractor with an invoice identifying all sums due the City, as liquidated damages, as a result of the Contractor or a Subcontractor's failure to comply with the Good Jobs Ordinance as set forth above.

14.2.4 No portion of any invoice submitted by a Contractor that is subject to liquidated damages shall be paid by the City until such time as all liquidated damages relating to that invoice have been paid to the City.

14.2.5 The foregoing liquidated damages provisions shall be expressly set forth, subject to appropriate party name adjustments, as material provisions in all Contracts that the Contractor has with Subcontractors and the Contractor is obligated hereunder to enforce compliance in such Contracts with Subcontractors.

14.2.6 Any payment of liquidated damages hereunder shall not preclude a later claim, nor any later finding of a breach, or any payment of additional damages related to such later claim.

15. Housing and Urban Development Section 3 Clause. In the event this Contract is funded, in whole or in part, through Housing and Urban Development assistance, 24 C.F.R. §135.38 may apply and the Contractor shall then be required to comply with the following (referred to as the "Section 3 clause"):

15.1. The work to be performed under this Contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. § 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted Projects covered by Section 3, shall, to the greatest extent feasible, be directed to low and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

15.2. The parties to this Contract agree to comply with HUD's regulations in 24 C.F.R. part 135, which implement Section 3. As evidenced by their execution of this Contract, the parties to this Contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.

15.3. The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications

for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

15.4. The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 C.F.R. part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 C.F.R. part 135. The Contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 C.F.R. part 135.

15.5. The Contractor will certify that any vacant employment positions, including training positions, that are filled **(i)** after the Contractor is selected but before the Contract is executed, and **(ii)** with persons other than those to whom the regulations of 24 C.F.R. part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 C.F.R. part 135.

15.6. Noncompliance with HUD's regulations in 24 C.F.R. part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

15.7. With respect to work performed in connection with Section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. § 450e) also applies to the work to be performed under this Contract. Section 7(b) requires that to the greatest extent feasible **(i)** preference and opportunities for training and employment shall be given to Indians, and **(ii)** preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this Contract that are subject to the provisions of Section 3 and section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

16. Termination.

16.1. Termination of Contract for Cause. If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner its obligations under this Contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this Contract, the City shall thereupon have the right to terminate this Contract by either **(i)** giving written notice to the Contractor of a date certain by which Contractor shall, to the written satisfaction of the City, cure after which and without further action by any party, such termination shall automatically become effective and binding, or **(ii)** giving written notice to the Contractor specifying the effective date of such termination at least five (5) business days before the effective date of such termination.

16.1.1 In the event of a termination, all finished or unfinished documents, data, studies, reports, plans, specifications, drawings, supplies, services, etc. prepared by the Contractor under this Contract shall, at the option of the City, become the

City's property, and the Contractor shall be entitled to receive just and equitable compensation for any satisfactory work completed for such.

16.1.2 Notwithstanding the above, the Contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of this Contract by the Contractor, and the City may withhold any payments to the Contractor for the purpose of setoff until such time as the exact amount of damages due the City from the Contractor is determined.

16.2. Termination for Convenience of the City. The City may terminate this Contract at any time for the convenience of the City, by a notice in writing from the City to the Contractor. If this Contract is terminated by the City as provided herein, the Contractor will be paid an amount which bears the same ratio to the total compensation as the services actually performed bear to the total services of the Contractor covered by this Contract, less payments of compensation previously made.

16.3. Termination for Non-Appropriation or Lack of Funding. The Contractor acknowledges that the City is a municipal corporation and that this Contract is subject to the appropriation and disbursement of funds by the City sufficient for this Contract for each budget year in which this Contract is in effect. The Contractor therefore agrees that the City shall have the right to terminate this Contract in whole or in part without penalty to the City in the event that sufficient funds to provide for City payment(s) under this Contract is not appropriated, not authorized, or not made available, or such funding has been reduced. In the event this Contract is subject, in whole or in part, to the appropriation and disbursement of Federal and/or State funds and those Federal and/or State funds are not appropriated or are not disbursed to the City, the Contractor hereby agrees that the City shall have the right to terminate this Contract in whole or in part without penalty to the City.

16.3.1 Effects of Non-Appropriation. If funds to enable the City to effect continued payment under this Contract are not appropriated, authorized or otherwise made available by law, the City shall have the right to terminate this Contract without penalty at the end of the last period for which funds have been appropriated, authorized or otherwise made available by law by giving written notice of termination to the Contractor.

16.3.2 Effects of Reduced Levels of Funding. If funding is reduced by law, or funds to pay the Contractor for the agreed to level of the products, services and functions to be provided by the Contractor under this Contract are not appropriated, authorized or otherwise made available by law, the City may, upon seven (7) business days written notice to the Contractor, reduce the level of the products, services or functions in such manner and for such periods of time as the City may elect. The charges payable under this Contract shall be equitably adjusted to reflect such reduced level of products, services or functions and the parties shall be afforded the rights set forth in this Contract.

16.3.3 No Payment for Lost Profits. In no event shall the City be obligated to pay or otherwise compensate the Contractor for any lost or expected future profits.

16.4. Rights Upon Termination.

16.4.1 Termination for Cause. In the event the City terminates this Contract for cause, the Contractor shall relinquish to the City any applicable interest, title and ownership including, but not limited to, perpetual use of any proprietary rights in and to the products and deliverables delivered to, in possession of and properly invoiced and paid for by (except to the extent such invoiced amount is disputed) the City. With regard to third party products, the Contractor shall transfer all licenses which it is permitted to transfer in accordance with the applicable third party license. The City shall have no financial obligation to compensate the Contractor for such terminated products unless payment is otherwise approved by the City prior to such termination. The Contractor shall be liable for costs incurred by the City, including but not limited to reasonable attorney fees and all court awarded fees and costs incurred in terminating this Contract in whole or in part.

16.4.2 Termination for Lack of Funding or Convenience. In the event of termination by the City for lack of funding or convenience, the City shall pay the Contractor for all labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc.(including any holdbacks) installed and delivered to the City as of the Termination Date and the Contractor shall relinquish to the City any applicable interest, title and ownership including, but not limited to perpetual use of any proprietary rights in and to said labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc. delivered to, in possession of and paid for by the City (except to the extent any invoiced amount is disputed). The Contractor shall be required to exercise commercially reasonable efforts to mitigate damages. In the event of a termination for Lack of Funding or Convenience the City and the Contractor may negotiate a mutually acceptable payment to the Contractor for reasonable demobilization expenses. Said demobilization expenses, if any, shall be handled in accordance with the provision of this Contract pertaining to changes in the Project.

16.4.3 Assumption of Subcontracts. In the event of termination, the City shall have the right to assume, at its option, any and all subcontracts for products, services and functions provided exclusively under this Contract.

16.4.4 Delivery of Documents. In the event of termination, **(i)** the Contractor shall promptly deliver to the City, in a manner reasonably specified by the City, all documents and other tangible items furnished by, or owned, leased, or licensed by, the City, and **(ii)** the City shall pay the Contractor for all services performed and deliverables completed and accepted (pro-rated for deliverables

partially completed) prior to the effective date of the termination (except to the extent any invoice amount is disputed).

17. Force Majeure. Contractor shall not be held responsible for delays nor be subject to liquidated damages when such delays are caused by conditions beyond its control, including without limitation:

17.1. Acts of God, fire, explosion, epidemic, cyclone, flood, war, strikes, revolution, civil commotion, or acts of public enemies; and

17.2. Change of law and order, proclamation, regulation, ordinance, or governmental requirement.

Upon cessation of work for reason of force majeure delays, Contractor shall use its best efforts to meet the schedule set forth in Section 5 of this Contract.

18. Subcontracting. The Contractor shall not, without the prior written approval of the City's Using Agency, subcontract, in whole or in part, any of the Contractor's services. Any subcontractor so approved shall be required to secure and maintain insurance coverage equal to or better than that required of the Contractor and shall name the City as an additional insured party and said subcontractors shall deliver to the City a certificate of insurance evidencing such coverages. All subcontractors shall comply with all federal, state and local, laws, regulations and ordinances but such requirement shall not relieve the Contractor from its requirement that all services provided hereunder shall comply with all Federal, State and local, laws, regulations and ordinances.

18.1. The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by the Contractor.

18.2. The Contractor is responsible for and shall control activities of its subcontractors, and the subcontractors shall consult and cooperate with one another and other contractors working on the Project site. Each subcontractor shall furnish all necessary information to other subcontractors and shall lay out and install its own work so as to avoid any delays or interferences with the work of another. Any cost for changes, cutting and/or repairing, made necessary by failure to observe the above requirements shall be borne by the Contractor or subcontractor responsible for such failure or neglect.

18.3. The Contractor shall not, without the prior written approval of the City's Using Agency, substitute, terminate, replace or otherwise remove a subcontractor.

19. Assignability. The Contractor shall not assign any interest in this Contract, and shall not transfer any interest in the same (whether by assignment or novation) without the prior written approval of the City; provided, however, that claims for money due or to become due the Contractor from the City under this Contract may be assigned to a bank, trust, company, or

other financial institution, or to a Trustee in Bankruptcy, without such approval. Notice of any such assignment or transfer shall be furnished promptly to the City.

20. Audit. The City reserves the right to audit the Contractor's books of account in relation to this Contract any time during the period of this Contract or at any time during the twelve month period immediately following the closing or termination of this Contract. In the event the City elects to make such an audit, the Contractor shall immediately make available to the City all records pertaining to this Contract, including, but not limited to, payroll records, bank statements and canceled checks.

21. Interest of City Officials. No member of the governing bodies of the City, and no other officer, employee, or agent of the City who exercises any functions or responsibilities in connection with the carrying out of the Project to which this Contract pertains, shall have any personal interest, direct or indirect, in this Contract.

22. Interest of Contractor. The Contractor covenants that it presently has no interest and shall not acquire any interest, direct or indirect, in the Project or any parcel of land therein or any other interest which would conflict in any manner or degree with the performance of its services hereunder. The Contractor further covenants that in the performance of this Contract no person having any such interest shall be employed.

23. Entire Contract. This Contract shall constitute the complete and exclusive statement of the contract between the parties as it relates to this transaction and supersedes all previous agreements and understandings, whether written or oral, relating to such subject matter. Any amendment to this Contract must be in writing and agreed to and executed by the City and the Contractor, and must comply with the City's Charter and Code of Ordinances.

24. Independent Contractor Relationship. The relationship between the City and the Contractor is that of client and independent contractor. No agent, employee, or servant of the Contractor shall be deemed to be an employee, agent or servant of the City. The Contractor shall be solely and entirely responsible for its acts and the acts of its agents, employees, servants and subcontractors during the performance of this Contract.

25. Severability. Whenever possible, each provision of this Contract shall be interpreted in such a manner as to be effective and valid under applicable law. If any provision of this Contract, however, is held to be prohibited or invalid under applicable law, such provision shall be deemed restated to reflect the original intentions of the parties, as nearly as possible in accordance with applicable law, and if capable of substantial performance, the remaining provisions of this Contract shall be enforced as if this Contract was entered into without an invalid provision. If the ruling and/or controlling principle of law or equity leading to the ruling is subsequently overruled, modified or amended by legislation, judicial or administrative action, then the provision(s) in question as originally set forth in this Contract shall be deemed valid and enforceable to the maximum extent permitted by the new controlling principal of law or equity.

26. Survival. Any provisions of this Contract that impose continuing obligations on the parties shall survive the expiration or termination of this Contract for any reason.

27. Changes in the Project: Change Orders.

27.1. Requests for Change Orders. The City reserves the right on its own volition, or based upon a proposal for a Change Order submitted in written form with a thorough explanation by the Contractor, to request from time to time any changes to the requirements and specifications of this Contract and the products to be provided and the functions and services to be performed by the Contractor under this Contract. Such changes must be authorized by the City. The City will not approve of any change orders, deletions, additions, or additional work items to the Scope of Services or any change in the terms and conditions of this Contract except by means of a City authorized amended Scope of Services, applicable and restricted to those items set forth in §1, above, or Change Order issued as set forth in this section, except in the event of an emergency endangering life or property.

27.2. Procedures.

27.2.1 The Contractor's Response to a Change Request.

i. Within thirty (30) calendar days after receipt of a request by the City for any such change or such other period of time as the Parties may mutually agree to in writing, the Contractor shall submit to the City a proposal describing any changes in Contract Milestones or Contract completion dates, products, functions, timing of delivery, assignment of personnel, and the like, and any associated price adjustment. The Contractor's proposal shall describe, in detail, the basis for the proposed price adjustment, including the charges for any products required to implement the change request.

ii. To the extent that additional cost or cost savings result from a change in required products, the Contractor shall obtain any additional products and provide them to the City at a negotiated price acceptable to the City and the Contractor. Similarly, if the change request is expected to result in a reduction in products required to perform the services, the Contractor's charges shall be reduced by the cost savings resulting from the products eliminated by the change request**.**

27.2.2 City's Acceptance of Change Request. If the City accepts the Contractor's proposal, the City shall issue a change order referencing the Contractor's proposal and both parties shall sign the change order. The Contractor shall not implement any change request until the City has issued a valid, properly executed, change order.

27.2.3 City's Rejection of Change Request. If the City does not accept the Contractor's proposal, the City may within two weeks of such non-acceptance:

(i) withdraw its change request; or, **(ii)** modify its change request, in which case the procedures set forth above shall apply to the Contractor's response to the modified change request.

27.3. City Discretion. The City may, in its sole discretion, approve the proposed Change Order and shall forward same for additional signatures under the following conditions: **(i)** If it conforms to provisions of applicable laws, and **(ii)** if it is consistent with this Contract, and **(iii)** if the time of performance of this Contract will not be unreasonably delayed, **(iv)** the Final Completion date is not changed, **(v)** if the Change Order requires a change to the Final Completion date, such change has been authorized by an approved, executed, written Amendment to this Contract, and **(vii)** if the Change Order requires an increase in the price of the Contract, the City **(1)** has sufficient funds, and **(2)** if a budget transfer is required to cover the cost of the proposed Change Order, such transfer has secured the written approval of the Board of Aldermen and other required regulatory agencies.

27.4. Change Orders Governed by the Provisions of this Contract. All work performed under a Change Order is governed by the provisions of this Contract.

28. Conflicts or Disputes. This Contract represents the concurrence between the City and the Contractor and governs all disputes between them. In the instance of a conflict or dispute over issues not specifically referenced within the Contract, the following documents shall be used as historical documents, without regard to the order of precedence, to resolve such conflicts or disputes, as follows: **(i)** the City's **RFP Number 7932** and **(ii)** the Contractor's Bid response to **RFP Number 7932**, dated _____. Said historical documents are attached hereto as part of **Attachment A.**

28.1. Procedure. This procedure supersedes all statements to the contrary occurring either in proposals or other prior agreements, oral or written, and all other communications between the parties relating to this subject.

28.2. Presumption. This Contract or any section thereof shall not be construed against any party due to the fact that the Contract or any section thereof was drafted by such party.

29. Disputes; Legal Proceedings; Waiver of Trial by Jury and Continued Performance. The Contractor agrees that its waives a trial by jury as to any and all claims, causes of action or disputes arising out of this Contract or services to be provided pursuant to this Contract. Notwithstanding any such claim, dispute or legal action, the Contractor shall continue to perform services under this Contract in a timely manner, unless otherwise directed by the City.

30. Binding Contract. The City and the Contractor each bind themselves, and their successors, assigns and legal representatives to the other party to this Contract and to the successors, assigns and legal representatives of such other party with respect to all covenants of this Contract.

31. Waiver. Any waiver of the terms and conditions of this Contract by either of the parties hereto shall not be construed to be a waiver of any other term or condition of this Contract.

32. Governing Laws. This Contract, its terms and conditions and any claims arising there from shall be governed by the laws of the State of Connecticut.

33. Notice. Except as otherwise specifically prohibited in this Contract, whenever under this Contract approvals, authorizations, determinations, notices, satisfactions or waivers are required or permitted, such items shall be effective and valid only when given in writing signed by a duly authorized officer of the City or the Contractor, and delivered in hand or sent by mail, postage prepaid, to the party to whom it is directed, which until changed by written notice, are as follows:

Contractor:

City: City of Waterbury
Chase Municipal Building
235 Grand Street
Waterbury, CT 06702

34. City Code of Ordinances, Ethics and Conflict of Interest Code, Provisions.
The Person (the term "Person" shall herein be as defined in Section 38 of the City's Code of Ordinances) supplying the labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc. under this Contract shall comply with all applicable Federal, State and Municipal statutes, regulations, charters, ordinances, rules, etc, whether or not they are expressly stated in this Contract, including but not limited to the following:

34.1. It shall be a material breach of this Contract, and, except as may be permitted by regulations or rulings of the City of Waterbury Board of Ethics it shall be a violation of the City's Code of Ordinances, for any Public Official, City Employee or Member of a Board or Commission who is participating directly or indirectly in the procurement process as set forth in the City's Code of Ordinances, including those participating in exempt transactions, to become or be the employee of any person contracting with the governmental body by whom the Official, Employee, or Board or Commission member is employed or is a member.

34.2. It shall be a material breach of this Contract, and it shall be a violation of the City's Code of Ordinances for any Person to offer, give, or agree to give any current or former Public Official, Employee or Member of a Board or Commission, or for such current or former Public Official, Employee or Member of a Board or Commission to solicit, demand, accept or agree to accept from another Person, a gratuity or an offer of

employment in connection with any: decision; approval; disapproval; recommendation; preparation of any part of a program requirement or a requisition; influencing the content of any specification or procurement standard; or rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a Contract or Purchase Order, or to any solicitation or proposal therefore.

34.3. It shall be a material breach of this Contract and it shall be a violation of the City's Code of Ordinances for any payment, Gratuity, or offer of employment to be made as an inducement for the award of a subcontract or order, by or on behalf of a subcontractor, the prime Contractor or higher tier subcontractor or any Person associated therewith, under a Contract or Purchase Order to the City.

34.4. The value of anything transferred or received in violation of the City's Charter, Code of Ordinances, and/or regulations promulgated there under, by any Person subject to said Charter and/or Ordinances may be recovered by the City.

34.5. Upon a showing that a subcontractor made a kickback to the City, a prime Contractor or a higher tier subcontractor in connection with the award of a subcontract or order there under, it shall be conclusively presumed that the amount thereof was included in the price of the subcontract or order and ultimately borne by the City and will be recoverable hereunder from the recipient. In addition, said value may also be recovered from the subcontractor making such kickbacks. Recovery from one offending party shall not preclude recovery from other offending parties.

34.6. It shall be a material breach of this Contract and it shall be a violation of the City's Code of Ordinances for a Person to be retained, or to retain a Person, to solicit or secure a contract with the City upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee; and every Person, before being awarded a City Contract, shall deliver to the City, on a City authored form, a representation that such Person has not retained anyone in violation of this subsection 34.6, the failure to deliver said form being a material breach of this Contract and a violation of the City's Code of Ordinances. Note, however, this subsection 34.6 shall not apply to full-time Employees who, as a condition of their employment, may be entitled to bonuses or other fees in accordance with their employment relationship.

34.7. The Person hereby expressly represents that he/she/it has complied with those sections of the City's Code of Ordinances requiring that said Person has **(i)** delivered to the City an affidavit, on a City authored form, stating that the Person and its affiliates have no delinquent taxes or other financial obligations owned to the City; **(ii)** filed the City authored financial disclosure statement form as set forth in the City's Code of Ordinances regarding disclosure of financial interests; **(iii)** delivered to the City a written acknowledgement, on a City authored form, evidencing receipt of a copy of the "Ethics and Conflict of Interest" ordinance for the City of Waterbury and hereby expressly represents that said Person is in full compliance with the entirety of said

Code of Ordinances; and **(iv)** filed a current list of all taxable personal and real property as required by the State of Connecticut General Statutes. Any violation of this subsection 34.7 shall be deemed a material breach of this Contract and shall be a violation of the City's Code of Ordinances.

34.8. The definitions set forth in the City's Code of Ordinances shall be the primary source for interpretation of the forgoing subsections 34.1-34.7.

34.9. The Contractor is hereby charged with the requirement that it shall have knowledge of, and shall fully comply with, all relevant provisions of the City's Charter and all relevant provisions of the City's Code of Ordinances, including without limitation Chapters 93, titled "Discriminatory Practices", Chapter 38 titled "Centralized Procurement System", and Chapter 39 titled "Ethics and Conflict of Interest", of said Code as may be amended from time to time.

34.10 The Contractor hereby acknowledges receipt of a copy of the Chapters 38 and 39 of City's Ordinance regarding Procurement, Ethics, and Conflicts of Interest and has familiarized itself with said Code and hereby agrees to adhere to said Code. The text of Chapters 38 and 39 of said Code may be obtained from the Office of the City Clerk of the City and on the internet at the City Clerk's web site: https://www.waterburyct.org/services/city-clerk/code-of-ordinances [click link titled "The City of Waterbury Code of Ordinances *Revised 12/31/19".* For Chapter 38, click on "TITLE III: ADMINISTRATION", then click on "CHAPTER 38: CENTRALIZED PROCUREMENT SYSTEM". For Chapter 39, click on "TITLE III: ADMINISTRATION", then click on "CHAPTER 39: ETHICS AND CONFLICTS OF INTEREST".

34.11. The Contractor is hereby charged with the requirement that it shall have knowledge of, and shall fully comply with, the City's Ordinance Sections 34.15 through 34.99 entitled, "Ordinance Concerning the Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects," and the State of Connecticut Legislature's Special Act No. 01-1.

34.12. Every Person who conducts business with, contracts, with or provides commodities or services to the City, is charged with notice of the extent of the powers and authority, and the limitations thereon, of the Public Officials and Employees of the City, as set forth in the charter of the City, the Code of Ordinances and any Regulations or Policies pertaining thereto. In particular, and without implying any limitation as to its applicability, it applies to all Persons who participate in the procedures pertaining to the Centralized Procurement System as set forth in Chapter 38, and the Ethics and Conflict of Interest provisions set forth in Chapter 39 of the Code of Ordinances.

34.13. INTEREST OF CITY OFFICIALS. No member of the governing body of the City, and no other officer, employee, or agent of the City who exercises any functions or responsibilities in connection with the carrying out of the project, to which

this agreement pertains, shall have any personal interest, direct or indirect, in this agreement.

34.14. PROHIBITION AGAINST CONTINGENCY FEES. The Contractor hereby represents that it has not retained anyone to solicit or secure a contract with the City upon an agreement or understanding for a commission, percentage, brokerage or contingency fee.

34.15. FREEDOM OF INFORMATION ACT NOTICE. Pursuant to State statute, in the event the total compensation payable to the Contractor set forth in Section 6 of this Contract is greater than $2,500,000.00, the City is entitled to receive a copy of any and all Contractor records and files related to the performance of this Contract and those records and files are subject to the Freedom of Information Act ("the Act") and may be disclosed by the City pursuant to the Act.

35. Definitions. Whenever the following, words, terms, etc. appear in this Contract, the intent and meaning shall be as follows:

35.1 Additional Work: Work required by the City that involves a substantial addition to, deduction from or modification of the Contract Documents.

35.2 Bid or Proposal: The form on which the bidder is to submit a bid for the Work contemplated.

35.3 Bidder: A person, partnership, corporation or other business organization submitting a bid on the form for the Work contemplated.

35.4 City: The City of Waterbury, acting directly or through specifically authorized personnel.

35.5 Construction Supervisor: An employee of the City of Waterbury, or other City duly authorized person.

35.6 Contract Time: The number of days as stated in the Contract to: (i) achieve Substantial Completion, (ii) Final Completion.

35.7 Equal: The recognized equivalent in substance and function; considering quality, workmanship, economy of operation, durability and suitability for purposes intended, and not constituting a change in the Work specified. Whenever the words "equal" or "equals" or words of like import are used, it shall be understood they mean "equal" in the opinion of the City.

35.8 Final Completion: The time at which the Project has progressed to the point where, in the opinion of the City, the Project is complete such that it is ready for final payment as evidenced by the City's, or its duly authorized City representative's, written recommendation of final payment. The terms "finally

complete" and "finally completed" as applied to the Project refer to Final Completion.

35.9 Notice to Proceed: A letter from the City which shall state the date of execution of the Contract and specifically advise the Contractor to begin work on the Contract.

35.10 Plans: All drawings or reproductions of drawings pertaining to the construction of the work contemplated and its appurtenances.

35.11 Project Engineer or Manager: An employee of the City or a person, partnership, corporation or other business organization under contract with the City, commissioned to perform construction administration and inspection duties during construction.

35.12 Shop Drawings: Drawings, diagrams, schedules, performance charts, brochures and other materials prepared by the Contractor or subcontractors, manufacturers or distributors which illustrate some portion of the work.

35.13 Specifications or Technical Specifications: The description, provisions and other requirements pertaining to the materials, methods and manner of performing the Project.

35.14 Subcontractor: A person, partnership, corporation or other business organization supplying labor and/or materials for work at the site of the Project to and under agreement with the Contractor.

35.15 Substantial Completion: The time at which, in the opinion of the Engineer, the Project (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Project (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Project mean Substantial Completion thereof.

35.16 Substitution: A replacement of specified material, device or equipment which is sufficiently different in substance, function, quality or workmanship to become the subject of a Change Order.

35.17 Supplementary General Conditions: An extension to the terms, conditions, and provisions set forth in this document as additional, material, provisions of this Contract.

35.18 Work: All plant, labor, materials, services, supplies, equipment and other facilities and items necessary for, or incidental to, the completion of the terms of the Contract.

35.19 Using Agency: The City of Waterbury Board of Education

[Signature page follows]

IN WITNESS WHEREOF, the parties hereto execute this Contract on the dates signed below.

WITNESSES:

_____

_____

CITY OF WATERBURY

By:_____
Paul K. Pernerewski, Jr., Mayor

Date: _____

WITNESSES:

_____

_____

By:_____

Its _____

Date: _____

ATTACHMENT A

INDEX TO THE SUPPLEMENTARY CONDITIONS OF THE CONTRACT

.ARTICLE NUMBER	TITLE	PAGE NUMBER
1.	PLANS AND SPECIFICATIONS AT THE SITE	_____
2.	CONSTRUCTION PROGRESS SCHEDULE	_____
3.	SCHEDULE OF VALUES; APPLICATION FOR PAYMENT .	_____
4.	PARTIAL PAYMENTS	_____
5.	CONSTRUCTION EQUIPMENT.....	_____
6.	INSPECTION AND TESTS.....	_____
7.	UTILITIES	_____
8.	PROGRESS MEETINGS.....	_____

1. PLANS AND SPECIFICATIONS AT THE SITE

The Contractor shall maintain at the Project site two (2) copies of all Plans, Specifications, Addenda, approved Shop Drawings, Change Orders and other Modifications, Schedules and Instructions, in good order. One copy is to be marked to record all changes made during construction. These shall be available at all times to the Project Engineer and the City or their authorized representatives. At the conclusion of construction, the Contractor is to turn one (1) corrected set over to the Project Engineer.

2. CONSTRUCTION PROGRESS SCHEDULE

A. Within one (1) week after the Notice to Proceed, and prior to commencement of any work on site, the Contractor shall submit for the approval of the City three (3) copies of a Construction Progress Schedule which shall be developed by the Contractor through cooperation of the Project Engineer or authorized personnel. At the same time, the Contractor shall submit the Schedule of Values, Sedimentation and Erosion Control measures, Water Control Plan and Environmental Protection Plan.

B. The Progress Schedule shall indicate the proposed scheduling of the items of work listed in the various divisions of the work in the specifications. The schedule shall also indicate all subcontractors to be utilized on the Contract and the portions of the Contract that they will be performing. The Contractor shall evaluate the status of the Project at least monthly, comparing it to the original schedule which shall be revised as required.

3. SCHEDULE OF VALUES; APPLICATION FOR PAYMENT

A. Within one (1) week after the Notice to Proceed, as a basis for estimating partial payments, the Contractor shall submit for the approval of the City a certified Schedule of Values, broken down into quantities and unit costs for the various parts of the work, divided as may be directed and aggregating the total sum of the Contract; and if required, he shall submit evidence supporting this schedule.

B. The Contractor's requisition for payment shall be subdivided into items to correspond with the approved schedule and shall be in such numbers of copies as may be designated by the City.

4. PARTIAL PAYMENTS

A. The City will review the Contractor's monthly requisitions for Partial Payments to arrive at what is, in its opinion, a fair and just estimate of the materials suitably stored on the site and the amount of work performed on the Contract. At its discretion, the City may allow to be included in the monthly requisitions materials stored off the site. In the event the City allows the Contractor to include in its requisitions payments for materials stored off the site, the Contractor shall also submit any additional bonds and/or insurance certificates relating to off-site stored material, and follow such other procedures as may be required by the City.

B. In making such Partial Payments for the Project, retainage shall be held in accordance with Clean Water Funding Regulations (if applicable).

5. CONSTRUCTION EQUIPMENT

A. The Contractor shall furnish and maintain, at its own cost and risk, all tools, apparatus and appliances, hoists and/or cranes and power for same, scaffolding, runways, ladders, temporary supports and bracing and all other similar work or material necessary to insure speed, convenience and safety in the execution of its Contract. All such items shall be subject to approval of the City, upon Engineer's recommendation, as to general stability, type and location, but the responsibility for proper design, strength and safety shall remain with the Contractor. All such items shall comply with OSHA regulations and all other applicable codes, statutes, rules and regulations.

B. The Contractor shall provide all drains, drainage, ditches and pumping apparatus (including power and attendance for same) that may be necessary to keep all excavations and subgrade work free from water.

6. INSPECTION AND TESTS

A. All material and workmanship (if not otherwise designated by the Specifications)

shall be subject to inspection, examination and testing by the City and/or Project Engineer at any and all times during manufacture and/or construction and at any and all places where such manufacture and/or construction is carried on. All tests shall be made at the Contractor's expense. Notice of the time of all tests to be made at the site shall be given to all interested parties.

B. Without additional charge, the Contractor shall promptly furnish all reasonable facilities, labor and materials necessary to make tests safe and convenient. Special, full size and performance tests shall be as described in the Specifications.

C. If, at any time before final acceptance of the entire Project, the City and/or Project Engineer considers it necessary or advisable to examine any portion of the Project already completed by removing or testing out the same, the Contractor shall upon request furnish promptly all necessary facilities, labor and materials. If such work is found to be defective in any material respect because of a fault of the Contractor or any of its subcontractors, or if any work shall have been covered over without the approval or consent of the City (whether or not it is found to be defective), the Contractor shall be liable for testing costs and all costs of correction, including labor, material, services of required consultants, additional supervision and administrative costs.

7. UTILITIES

A. The accuracy and completeness of the utility information shown on the Plans is not guaranteed. The Contractor shall make its own investigation of the extent and location of utilities and of the possibility of relocation work by the utility companies, and shall plan its operations accordingly. No claim for any delays, damage or extra work occasioned thereby will be allowed.

B. The Contractor shall allow others access to the Project for the purpose of placing, relocating or maintaining utilities, and he shall cooperate in every way in the performance of this Project.

C. The Contractor shall notify the utility owners well in advance of the time the Contractor proposes to perform any work which would endanger utility installations, and the Contractor shall cooperate with the utility owners in relocating and/or protecting such installations during construction operations.

D. No payment will be made to the Contractor for locating, protecting and making arrangements for relocating public utilities or for any delays caused thereby. The Contractor shall include all costs of this Project in other scheduled items of the Contract.

E. The Contractor shall contact "Call Before You Dig" at least two days prior to commencing any excavation on the site (toll free in Connecticut at 1-800-922-4455).

8. PROGRESS MEETINGS

Progress meetings will be held weekly at locations, dates and times selected by the OWNER for the purpose of reviewing, scheduling and coordinating the Project's progress as well as other matters.

Attachment C Document

- ADDENDUM/CERTIFICATION/NOTICE OF ACCEPTANCE

ATTACHMENT C

KEVIN MC CAFFERY
DIRECTOR OF PURCHASING
235 GRAND STREET, ROOM 103
WATERBURY, CT 06702

The undersigned declares that the only persons or parties interested in this Proposal as principals are as stated; that the Proposal is made without any collusion with other persons, firms, or corporations; that Proposer has carefully examined the entire Request for Proposal; that Proposer has informed itself fully in regard to all conditions pertaining to the Work and the place where it is to be performed; and that with this representation, the undersigned makes this Proposal. These prices shall cover all expenses incurred in performing the Work required under the Contract Documents, of which this Proposal and Form are a part.

The undersigned agrees and covenants that the Contract Time shall commence on delivery of the City of Waterbury's written notice to proceed, which shall occur after contract execution by both parties.

The undersigned acknowledges receipt of addenda numbered: (insert date)

1 _____ 4 _____

2 _____ 5 _____

3 _____ 6 _____

All Work for this Project shall be performed at the Proposal Prices as described in the Proposal Documents.

The undersigned hereby certifies under the penalties of perjury that this Proposal is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this section, the work "person" shall mean any natural person, joint venture, partnership, corporation, or other business or legal entity.

_____ _____

Social Security Number
or Federal Identification Number

Signature of Individual or Corporate Name

_____

Corporate Officer
(if applicable)

City notice of acceptance should be mailed, telegraphed or delivered to the undersigned Proposer at the following address:

Name _____
By: _____
(Title)
Business Address: _____
(City, State, Zip Code)
_____
_____
Phone: _____
Email:_____
Date: _____

Note: If the Proposer is a corporation, indicate State of incorporation under signature, and affix corporate seal; if a partnership, give full names and residential addresses, if different from business address.

Attachment D Document

- INSURANCE REQUIREMENTS

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Sprague Elementary School Roof Replacement
RFP# 7932
Project 151-0308RR

Attachment D
Insurance Requirements

Contractor/Vendor shall agree to maintain in force at all times during the contract the following minimum coverages and shall name the City of Waterbury and the Waterbury Board of Education as Additional Insured on a primary and non-contributory basis to all policies, except Workers Compensation. All policies should also include a Waiver of Subrogation. Insurance shall be written with Carriers approved in the State of Connecticut and with a minimum AM Best's rating of "A"VIII.

If any policy is written on a "Claims Made" basis, the policy must be continually renewed for a minimum of two (2) years from the completion date of this contract. If the policy is replaced and/or the retroactive date is changed, then the expiring policy must be endorsed to extend the reporting period for claims for the policy in effect during the contract for two (2) years from the completion date.

Original, completed Certificates of Insurance must be presented to the City of Waterbury and the Waterbury Board of Education prior to contract issuance. Contractor/Vendor agrees to provide replacement/renewal certificates at least 30 days prior to the expiration date of the policies. Should any of the above described policies be cancelled, limits reduced or coverage altered, 30 days written notice must be given to the City of Waterbury and the Waterbury Board of Education.

General Liability:	**$1,000,000 each Occurrence** **$2,000,000 General Aggregate** **$2,000,000 Products/ Completed Operations Aggregate**
Auto Liability:	**$1,000,000 Combined Single Limit each Accident** **Any Auto, All Owned and Hired Autos**
Workers Compensation:	**WC Statutory Limits** **Employer Liability (EL)** **$1,000,000 EL each Accident** **$1,000,000 EL Disease each Employee** **$1,000,000 EL Disease Policy Limits**
Excess/Umbrella Liability:	**$10,000,000 each Occurrence** **$10,000,000 Aggregate**

Wording for Additional Insured Endorsement and Waiver of Subrogation:
The City Waterbury and its Board of Education is listed as an Additional Insured on a primary and non-contributory basis on all policies except Workers Compensation. All policies shall include a Waiver of Subrogation.

Attachment E Document

- COST PROPOSAL FORM

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Sprague Elementary School Roof Replacement
RFP# 7932
Project 151-0308RR
ATTACHMENT E

Price Proposal

(Must be submitted as part of Proposal in a separate sealed envelope, marked "Confidential: Price Proposal.")

Date: _____

Kevin McCaffery
Director of Purchasing
City of Waterbury
235 Grand Street, Room 103
Waterbury, CT 06702

Sir:

Pursuant to and in compliance with your RFP, the Undersigned,

_____
(Print or Type Company/Corporate Name)

_____
(Print or Type Business Address)

_____

_____

_____

having carefully examined all the RFP Documents, together with all Addenda, as acknowledged on Attachment C, and having informed itself fully in regard to all conditions and related requirements pertaining to the performance of services required under this RFP; and that with this representation, the undersigned makes this Proposal, as follows:

[Proposal continued on following page(s)]

Roof Replacement		
Description	**Amount (In Words)**	**Amount (In $)**
Sprague Elementary		**$**
	GRAND TOTAL	**$**

Alternates:

The undersigned proposes to furnish all Labor, Materials, Equipment and Services necessary to construct the items listed in the Alternates described in Section 012300 for the stipulated sum of:

DEDUCT ALTERNATE #1: Twenty (20) Year Warranty: Deduct from the Base Bid a Total of:

$ _____ Dollars ($ .00).
written figure

The project schedule will be (increased/decreased) by _____ calendar days to complete the work indicated under Deduct Alternate 1.

Unit Prices (See Section 012200):

As required by the Base Bid, should inadequate, deteriorated, or damaged materials be required to be removed as determined by the Architect or Owner, the cost to remove and replace the referenced material, (or credit for specified material not provided or installed) including all labor, material, equipment, and related furnishings is as follows:

Item	Description	Unit Price
1.	Tectum roof deck, thickness to match existing roof deck to be removed (including deteriorated roof deck removal, credit and add)	$ sf
2.	Add pressure treated wood blocking, as specified, cut to fit around roof structure and systems installed	$ bf
3.	Deduct pressure treated wood blocking, as specified, cut to fit around roof structure and system installed	$ bf

END OF ATTACHMENT E

Attachment G Document

- SCOPE OF SERVICES – PROJECT MANUAL AND ARCHITECTURAL DRAWINGS

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Sprague Elementary School Roof Replacement
RFP# 7932
Project 151-0308RR

ATTACHMENT G

Scope of Services

GENERAL DESCRIPTION

Technical Specifications

See architectural design specs and manual.

PROJECT MANUAL

CITY OF WATERBURY
CONNECTICUT

PARTIAL ROOF REPLACEMENT

SPRAGUE ELEMENTARY SCHOOL
1443 THOMASTON AVENUE
WATERBURY, CT 06704

STATE PROJECT #151-0308 RR
S/P+A PROJECT #22.059

VOLUME 1 OF 1

BC/PCR Submission: March 27, 2023
Issued for Bid: October 23, 2023

Architects | Engineers | Interior Designers
Silver Petrucelli + Associates, Inc.
3190 Whitney Avenue, Hamden, CT 06518
311 State Street, New London, CT 06320

PARTIAL ROOF REPLACEMENT

SPRAGUE ELEMENTARY SCHOOL
1443 THOMASTON AVENUE
WATERBURY, CT 06704
STATE PROJECT #151-0308 RR

S/P+A PROJECT #22.059

DIVISION 00 – PROCUREMENT AND CONTRACT REQUIREMENTS		PAGES
	Prevailing Wage Rate Information	29
	Drawing List	1
DIVISION 01 – GENERAL REQUIREMENTS		
Section 011000	Summary of Work	3
Section 012100	Allowances	3
Section 012200	Unit Prices	1
Section 012300	Alternates	2
Section 012500	Substitution Procedures	4
Section 012600	Contract Modification Procedures	3
Section 012900	Payment Procedures	4
Section 013100	Project Management and Coordination	5
Section 013200	Construction Progress Documentation	6
Section 013233	Photographic Documentation	2
Section 013300	Submittal Procedures	8
Section 014000	Quality Requirements	7
Section 014200	References	7
Section 015000	Temporary Facilities and Controls	4
Section 016000	Product Requirements	5
Section 017300	Execution	6
Section 017700	Closeout Procedures	4
Section 017823	Operation and Maintenance Data	7
Section 017839	Project Record Documents	3
DIVISION 02 – EXISTING CONDITIONS		
Section 020750	Selective Demolition	3
Section 020800	Asbestos Removal	19
Section 020850	Certificate of Worker's Acknowledgement	1
	Limited Asbestos Inspection Report, June 9, 2023	20
DIVISION 03 – CONCRETE		
Section 035113	Cementitious Wood Fiber Decks	6
DIVISION 06 – WOOD, PLASTICS AND COMPOSITES		
Section 061000	Rough Carpentry	4
DIVISION 07 – THERMAL AND MOISTURE PROTECTION		
Section 070150.19	Preparation for Reroofing	6

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

Section 070150.19	Preparation for Reroofing	6
Section 075216	Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing	11
Section 076200	Sheet Metal Flashing and Trim	9
Section 077100	Roof Specialties	7
Section 077129	Manufactured Roof Expansion Joints	4
Section 077200	Roof Accessories	6
Section 078413	Penetration Firestopping	4
Section 079200	Joint Sealants	5

DIVISION 22 – PLUMBING

Section 220719	Plumbing Piping Insulation	15
Section 221423	Storm Drainage Piping Specialties	2

END OF TABLE OF CONTENTS

CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM

Construction Manager at Risk/General Contractor/Prime Contractor

I,_____ of _____
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the _____
Company Name

_____
Street

_____
City

and all of its subcontractors will pay all workers on the

_____
Project Name and Number

_____
Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

_____
Signed

Subscribed and sworn to before me this _____ day of _____,_____.

_____
Notary Public

Return to:

Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

Minimum Rates and Classifications for Building Construction

ID#: 23-56221

Connecticut Department of Labor
Wage and Workplace Standards

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number: Project Town: Waterbury
State#: FAP#:
Project: Sprague Elementary School Partial Roof Replacement

CLASSIFICATION	Hourly Rate	Benefits
1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
1c) Asbestos Worker/Heat and Frost Insulator	45.56	32.65
2) Boilermaker	45.21	29.05
3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	39.4	34.62 + a
3b) Tile Setter	37.1	30.52
3c) Tile and Stone Finishers	30.0	25.30
3d) Marble & Terrazzo Finishers	31.07	24.23
3e) Plasterer	42.77	29.63

As of: December 21, 2023

4) Group 1: General laborers, carpenter tenders, concrete specialists, wrecking laborers and fire watchers.	33.5	25.59
4) Group 1a: Acetylene Burners (Hours worked with a torch)	34.5	25.59
4a) Group 2: Mortar mixers, plaster tender, power buggy operators, powdermen, fireproofer/mixer/nozzleman (Person running mixer and spraying fireproof only).	33.75	25.59
4b) Group 3: Jackhammer operators/pavement breaker, mason tender (brick), mason tender (cement/concrete), forklift operators and forklift operators (masonry).	34.0	25.59
4c) **Group 4: Pipelayers (Installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license) (the pipelayer rate shall apply only to one or two employees of the total crew who primary task is to actually perform the mating of pipe sections) P6 and P7 rate is $26.80.	34.5	25.59
4d) Group 5: Air track operator, sand blaster and hydraulic drills.	34.25	25.59
4e) Group 6: Blasters, nuclear and toxic waste removal.	36.5	25.59
4f) Group 7: Asbestos/lead removal and encapsulation (except it's removal from mechanical systems which are not to be scrapped).	36.5	25.59
4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew.	31.78	25.59
4h) Group 9: Top men on open air caisson, cylindrical work and boring crew.	31.24	25.59
4i) Group 10: Traffic Control Signalman	20.1	25.59

4j) Group 11: Toxic Waste Removers A or B With PPE	36.5	25.59
5) Carpenter, Acoustical Ceiling Installation, Soft Floor/Carpet Laying, Metal Stud Installation, Form Work and Scaffold Building, Drywall Hanging, Modular-Furniture Systems Installers, Lathers, Piledrivers, Resilient Floor Layers.	37.61	27.61
5a) Millwrights	38.02	28.41
6) Electrical Worker (including low voltage wiring) (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	43.4	32.07+3% of gross wage
7a) Elevator Mechanic (Trade License required: R-1,2,5,6)	61.42	37.335+a+b
-----LINE CONSTRUCTION----		
Groundman	26.5	6.5% + 9.00
Linemen/Cable Splicer	48.19	6.5% + 22.00
8) Glazier (Trade License required: FG-1,2)	41.18	24.55 + a
9) Ironworker, Ornamental, Reinforcing, Structural, and Precast Concrete Erection	42.37	40.02 + a
----OPERATORS----		
Group 1: Crane Handling or Erecting Structural Steel or Stone; Hoisting Engineer (2 drums or over). (Trade License Required)	52.78	27.80 + a
Group 1a: Front End Loader (7 cubic yards or over); Work Boat 26 ft. and Over	48.37	27.80 + a

As of: December 21, 2023

Group 2: Cranes (100 ton rate capacity and over); Bauer Drill/Caisson. (Trade License Required)	52.41	27.80 + a
Group 2a: Cranes (under 100 ton rated capacity).	51.51	27.80 + a
Group 2b: Excavator over 2 cubic yards; Pile Driver ($3.00 premium when operator controls hammer)	48.0	27.80 + a
Group 3: Excavator; Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar);Grader Operator; Bulldozer Finegrade. (slopes, shaping, laser or GPS, etc.). (Trade License Required)	47.1	27.80 + a
Group 4: Trenching Machines; Lighter Derrick; CMI Machine or Similar; Koehring Loader (Skooper); Goldhofer.	46.64	27.80 + a
Group 5: Specialty Railroad Equipment; Asphalt Spreader, Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24 mandrel).	45.92	27.80 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	45.92	27.80 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	45.55	27.80 + a
Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under mandrel).	45.14	27.80 + a
Group 8: Mechanic; Grease Truck Operator; Hydroblaster; Barrier Mover; Power Stone Spreader; Welding; Work Boat Under 26 ft.; Transfer Machine; Rigger Foreman.	44.67	27.80 + a
Group 9: Front End Loader (under 3 cubic yards); Skid Steer Loader regardless of attachments; (Bobcat or Similar); Forklift, Power Chipper; Landscape Equipment (including Hydroseeder); Vacuum Excavation	44.14	27.80 + a

Truck and Hydrovac Excavation Truck (27 HG pressure or greater).		
Group 10: Vibratory hammer; ice machine; diesel and air, hammer, etc.	41.69	27.80 + a
Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment.	41.69	27.80 + a
Group 12: Wellpoint Operator.	41.61	27.80 + a
Group 13: Compressor Battery Operator.	40.92	27.80 + a
Group 14: Elevator Operator; Tow Motor Operator (solid tire no rough terrain).	39.54	27.80 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	39.06	27.80 + a
Group 16: Maintenance Engineer.	38.28	27.80 + a
Group 17: Portable Asphalt Plant Operator; Portable Crusher Plant Operator; Portable Concrete Plant Operator; Portable Grout Plant Operator; Portable Water Filtration Plant Operator.	43.46	27.80 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (Minimum for any job requiring a CDL license); Rigger; Signalman.	40.54	27.80 + a
------PAINTERS (Including Drywall Finishing)------		
10a) Brush and Roller	37.62	24.55
10b) Taping Only/Drywall Finishing	38.37	24.55

10c) Paperhanger and Red Label	38.12	24.55
10e) Blast and Spray	40.62	24.55
11) Plumber (excluding HVAC pipe installation) (Trade License required: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2)	48.28	35.50
12) Well Digger, Pile Testing Machine	37.26	24.05 + a
Roofer: Cole Tar Pitch	44.5	23.30 + a
Roofer: Slate, Tile, Composition, Shingles, Singly Ply and Damp/Waterproofing	43.0	23.30 + a
15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	41.89	43.22
16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G-9)	48.28	35.50
------TRUCK DRIVERS------		
17a) 2 Axle, Helpers	32.16	30.51 + a
17b) 3 Axle, 2 Axle Ready Mix	32.27	30.51 + a
17c) 3 Axle Ready Mix	32.33	30.51 + a
17d) 4 Axle	32.39	30.51 + a
17e) 4 Axle Ready Mix	32.44	30.51 + a

As of: December 21, 2023

17f) Heavy Duty Trailer (40 Tons and Over)	34.66	30.51 + a
17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	32.44	30.51 + a
17h) Heavy Duty Trailer up to 40 tons	33.39	30.51 + a
17i) Snorkle Truck	32.54	30.51 + a
18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	47.55	32.27 + a
19) Theatrical Stage Journeyman	25.76	7.34

Welders: Rate for craft to which welding is incidental.

**Note: Hazardous waste removal work receives additional $1.25 per hour for truck drivers.*

***Note: Hazardous waste premium $3.00 per hour over classified rate*

Crane with 150 ft. boom (including jib) - $1.50 extra
Crane with 200 ft. boom (including jib) - $2.50 extra
Crane with 250 ft. boom (including jib) - $5.00 extra
Crane with 300 ft. boom (including jib) - $7.00 extra
Crane with 400 ft. boom (including jib) - $10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyperson instructing and supervising the work of each apprentice in a specific trade.

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page: www.ct.gov/dol. For those without internet access, please contact the division listed below.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of: December 21, 2023

As of: December 21, 2023

Connecticut Department of Labor
Wage and Workplace Standards Division
FOOTNOTES

⇨ Please Note: If the "Benefits" listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the "Benefits" section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons
(Building Construction) and
(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Elevator Constructors: Mechanics

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.

b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators
(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

STATUTE 31-55a

- SPECIAL NOTICE –

To All State and Political Subdivisions,Their Agents, and Contractors
Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the ***contractor's*** responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web page: www.ctdol.state.ct.us. For those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project. All subsequent annual adjustments will be posted on our Web Site for contractor access.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.

Information Bulletin
Occupational Classifications

The Connecticut Department of Labor has the responsibility to properly determine *"job classification"* on prevailing wage projects covered under C.G.S. Section 31-53(d).

Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification. If unsure, the employer should seek guidelines for CTDOL.

Below are additional clarifications of specific job duties performed for certain classifications:

- ***ASBESTOS WORKERS***

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

- ***ASBESTOS INSULATOR***

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

- ***BOILERMAKERS***

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

- ***BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO WORKERS, TILE SETTERS***

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

- ***<u>CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS</u>***

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

- **LABORER, CLEANING**

• The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

- **DELIVERY PERSONNEL**

• If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages <u>are not required</u>. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.

• An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer or tradesman, and not a delivery personnel.

- ***<u>ELECTRICIANS</u>***

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. ****License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.***

- ***ELEVATOR CONSTRUCTORS***

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. ****License required by Connecticut General Statutes: R-1,2,5,6.***

- ***FORK LIFT OPERATOR***

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

- ***GLAZIERS***

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers, which require equal composite workforce.

- ***IRONWORKERS***

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which require equal composite workforce.

- ***INSULATOR***

• Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings.

- ***LABORERS***

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), decorative security fence (non-metal).

installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

- ***PAINTERS***

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hhg for any and all types of building and residential work.

- ***LEAD PAINT REMOVAL***

• Painter's Rate

1. Removal of lead paint from bridges.
2. Removal of lead paint as preparation of any surface to be repainted.
3. Where removal is on a Demolition project prior to reconstruction.

• Laborer's Rate

1. Removal of lead paint from any surface NOT to be repainted.
2. Where removal is on a *TOTAL* Demolition project only.

- ***PLUMBERS AND PIPEFITTERS***

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. ****License required per Connecticut General Statutes: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.***

- ***POWER EQUIPMENT OPERATORS***

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. ****License required, crane operators only, per Connecticut General Statutes.***

- ***ROOFERS***

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (demolition or removal of any type of roofing and or clean-up of any and all areas where a roof is to be relaid.)

- ***SHEETMETAL WORKERS***

Fabricate, assembles, installs and repairs sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, facia, louvers, partitions, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers. To include testing and air –balancing ancillary to installation and construction.

- ***SPRINKLER FITTERS***

Installation, alteration, maintenance and repair of fire protection sprinkler systems. ****License required per Connecticut General Statutes: F-1,2,3,4.***

- ***TILE MARBLE AND TERRAZZO FINISHERS***

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

- **TRUCK DRIVERS**

~How to pay truck drivers delivering asphalt is under REVISION~

Truck Drivers are requires to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. ****License required, drivers only, per Connecticut General Statutes.***

For example:

• Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
• Hauling material off site is not covered provided they are not dumping it at a location outlined above.
• Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

➢ *Any questions regarding the proper classification should be directed to:*
Public Contract Compliance Unit
Wage and Workplace Standards Division
Connecticut Department of Labor
200 Folly Brook Blvd, Wethersfield, CT 06109
(860) 263-6543.

Sec. 31-53b. Worker training requirements for public works projects. Enforcement. Regulations. Exceptions. (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (h) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 46 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268, and on or after July 1, 2012, that any plumber or electrician subject to the continuing education requirements of section 20-334d, who has completed a course of at least ten hours in duration in construction safety and health approved by federal Occupational Safety and Health Administration five or more years prior to the date such electrician or plumber begins work on such public works project, has completed a supplemental refresher training course of at least four hours in duration in construction safety and health taught by a federal Occupational Safety and Health Administration authorized trainer.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2012, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in the case of a supplemental refresher training course, shall include, but not be limited to, an update of revised Occupational Safety and Health Administration standards and a review of required construction hazards training, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project or, in the case of supplemental refresher training, a student course completion card issued by said Occupational Safety and Health Administration authorized

trainer dated not earlier than five years prior to the date such electrician or plumber begins work on such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1; P.A. 10-47, S. 2; P.A. 11-63, S. 1)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009; P.A. 10-47 made a technical change in Subsec. (a); P.A. 11-63 amended Subsec. (a) by adding provision re supplemental refresher training course for plumbers and electricians subject to Sec. 20-334d, amended Subsec. (c) by adding provisions re regulations and subject matter of refresher training course and refresher train course student completion cards, and made technical changes, effective July 1, 2011.



Opportunity ⋆ Guidance ⋆ Support

CONNECTICUT DEPARTMENT OF LABOR

THIS IS A PUBLIC WORKS PROJECT

Covered by the

PREVAILING WAGE LAW

CT General Statutes Section 31-53

If you have QUESTIONS regarding your wages
CALL (860) 263-6790

Section 31-55 of the CT State Statutes requires every contractor or subcontractor performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least $100,000)

(1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);

(2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;

(3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least $100,000;

(4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;

(5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;

(6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;

(7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;

(8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;

(9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

(10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;

(11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;

(12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;

(13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;

(14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and

(15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.

(16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTMATELY ARISE CONCERNIG THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

November 29, 2006

Notice

To All Mason Contractors and Interested Parties Regarding Construction Pursuant to Section 31-53 of the Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.

- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

NOTICE

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached “Contracting Agency Certification Form” to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

Inquiries can be directed to 860.263.6790.







CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

Contracting Agency Certification Form

I,_____, acting in my official capacity as _____,
Authorized Representative Title

for _____, located at _____,
Contracting Agency Address

do hereby certify that the total dollar amount of work to be done in connection with

_____, located at _____,
Project name and number Address

shall be $_____, which includes all work, regardless of whether such project contains of one or more contracts.

Contractor Information

Name: _____

Address: _____

Authorized Representative: _____

Approximate Starting Date: _____

Approximate Completion Date: _____

_____ _____
Signature Date

Return to:

Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

[New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

In accordance with Connecticut General Statutes, 31-53 Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency.

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

WEEKLY PAYROLL

Connecticut Department of Labor
Wage and Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

CONTRACTOR NAME AND ADDRESS:

SUBCONTRACTOR NAME & ADDRESS

WORKER'S COMPENSATION INSURANCE CARRIER

POLICY #

EFFECTIVE DATE:
EXPIRATION DATE:

PAYROLL NUMBER | Week-Ending Date | PROJECT NAME & ADDRESS

PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE S	M	T	W	TH	F	S HOURS WORKED EACH DAY	Total ST Hours Total O/T Hours	BASE HOURLY RATE TOTAL FRINGE BENEFIT PLAN CASH	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS FICA	FEDERAL WITH-HOLDING	STATE WITH-HOLDING	LIST OTHER	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
												$ Base Rate	1. $ 2. $ 3. $								
												$ Cash Fringe	4. $ 5. $ 6. $								
												$ Base Rate	1. $ 2. $ 3. $								
												$ Cash Fringe	4. $ 5. $ 6. $								
												$ Base Rate	1. $ 2. $ 3. $								
												$ Cash Fringe	4. $ 5. $ 6. $								
												$ Base Rate	1. $ 2. $ 3. $								
												$ Cash Fringe	4. $ 5. $ 6. $								

12/9/2013
WWS-CP1

*IF REQUIRED

*SEE REVERSE SIDE

PAGE NUMBER _____OF

OSHA 10 ~ATTACH CARD TO 1ST CERTIFIED PAYROLL

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:

1) Medical or hospital care _____ 4) Disability_____

2) Pension or retirement _____ 5) Vacation, holiday_____

3) Life Insurance _____ 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of _____,

I, _____of _____, (hereafter known as

Employer) in my capacity as _____ (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

a) The records submitted are true and accurate;

b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;

c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);

d) Each such employee of the Employer is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;

e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and

f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such employee's name first appears.

_____	_____	_____
(Signature)	(Title)	Submitted on (Date)

Section B: Applies to CONNDOT Projects ONLY

That pursuant to CONNDOT contract requirements for reporting purposes only, all employees listed under Section B who performed work on this project are not covered under the prevailing wage requirements defined in Connecticut General Statutes Section 31-53.

_____	_____	_____
(Signature)	(Title)	Submitted on (Date)

Note: CTDOL will assume all hours worked were performed under Section A unless clearly delineated as Section B WWS-CP1 as such. Should an employee perform work under both Section A and Section B, the hours worked and wages paid must be segregated for reporting purposes.

*****THIS IS A PUBLIC DOCUMENT*****

*****DO NOT INCLUDE SOCIAL SECURITY NUMBERS*****

Weekly Payroll Certification For Public Works Projects (Continued)

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

Week-Ending Date:
Contractor or Subcontractor Business Name:

WEEKLY PAYROLL

PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE S / M / T / W / TH / F / S HOURS WORKED EACH DAY	Total ST Hours Total O/T Hours	BASE HOURLY RATE TOTAL FRINGE BENEFIT PLAN CASH	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS FICA / FEDERAL WITH-HOLDING / STATE WITH-HOLDING / LIST OTHER	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				

*IF REQUIRED

NOTICE: THIS PAGE MUST BE ACCOMPANIED BY A COVER PAGE (FORM # WWS-CP1)

PARTIAL ROOF REPLACEMENT

SPRAGUE ELEMENTARY SCHOOL
1443 THOMASTON AVENUE
WATERBURY, CT 06704
STATE PROJECT #151-0308 RR

S/P+A PROJECT #22.059

Drawing Number	Drawing Name
	COVER SHEET
C1	CODE INFORMATION
A1	ROOF PLAN
A2	ROOF DETAILS

END OF DRAWING LIST

SECTION 011000 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 PROJECT DESCRIPTION

A. The Work of the Project is defined by the Contract Documents and consists of a partial roof replacement of an existing building.

B. The Work generally includes, but is not necessarily limited to the following major elements:

1. Removal of existing membrane roofing, insulation, cant strips and tapered edges, and metal flashings.
2. Removal and replacement of existing roof hatches and other roof accessories.
3. Removal and replacement of deteriorated roof decking and wood blocking.
4. Removal and replacement of existing roof drains and related piping and insulation.
5. Provision and installation of modified bituminous membranes, underlayment, and flat and tapered insulations.
6. Provision and installation of new flashings, caps, fasciae, and other trim metal work as detailed and specified, including new gutters, collection boxes, downspouts, and scuppers.
7. Removal and offsite disposal of asbestos and hazardous materials.
8. Offsite disposal of all removed materials.

1.3 CONTRACTOR USE OF PREMISES

A. General: Limit use of the premises to construction activities in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

B. Confine operations to as small work areas and accessways as possible. As much as possible and without damage to the finishes, doors, and related building systems, access the project area via the service doors designated by Owner.

C. Keep driveways and entrances serving the premises clear and available to the Owner and emergency vehicles at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.

D. Maintain existing egress patterns, exit doors, and means of egress during construction, which will include the provision of temporary walkways, sidewalks, or other means necessary to provide adequate life safety for the building occupants, particularly at exitways which must continue to be open and serviceable while adjacent construction activity occurs.

E. Use of the Existing Building: Maintain the existing building in a weathertight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period.

1. Contractor is responsible to secure project area/site from intrusions during unoccupied (after hours) period of time. Any temporary doors and /or window coverings that may be necessary to complete repairs are the Contractors responsibility to furnish and install as part of the project scope.

1.4 OWNER OCCUPANCY

A. Full Owner Occupancy: The Owner's administrative and maintenance staff will occupy the site and existing building during the entire construction period, with children on site during the school year. Cooperate with the Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with the Owner's operations. Pre-schedule construction operations with the Owner for areas that must be evacuated for extended periods, giving the Owner the opportunity to relocate administrative or educational operations to non-affected areas.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

1.5 SPECIAL REQUIREMENTS

A. The Contractor shall insure that all work performed is done so in a safe manner and that all his/her employees shall adhere to all applicable safety procedures and practices at all times. There may be children and staff in the vicinity of the work area during normal working hours. The Contractor shall be aware at all times that additional safety considerations should be taken. Particular care shall be taken by the Contractor, Subcontractors and all those in their employ, that all tools, equipment, ladders, etc. are never left unsupervised.

B. Meaningful Instruction: Meaningful instruction (as determined by the Owner) must be facilitated and possible within the building at all times. This requirement may limit the Contractor's demolition and construction operations as the distraction represented by hammering, material movement, etc. may disrupt classes. No down time or mobilization charges will be permitted should the meaningful instruction requirement suspend the Contractor's operations for any length of time.

C. Testing: During the school year, Smarter Balanced Assessment Consortium may be administered to portions of the student population, which requires absolute concentration on the part of the students. The Owner may prohibit operations during the administration of these assessments. Cooperate with the Owner to determine the schedule, locations of the testing and where operations may proceed with disrupting classroom or roofing operations.

D. Under no circumstances shall the buildings' occupants be subjected to excessive construction noise or vibrations, nor shall they be subject to fumes, odors, or other deleterious effects of the operation. Should material delivery, demolition or construction operations, inclement weather or related schedule conditions produce this situation (as determined by the Owner), the Contractor shall be required to suspend operations that produce the offending effects until such time as the building is not occupied, or as approved by the Owner.

E. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, and other controlled substances inside the building or on the grounds is not permitted. Strict adherence to the regulations will be enforced for the entire duration of the construction.

F. There will be absolutely **no** fraternizing with the students by construction personnel. Anyone caught doing so will be required to leave the jobsite and will not be permitted to return. Such dismissal shall not give the contractor grounds for default on any other contract requirements, including the construction schedule.

G. Site Security – Identification Badges

1. The Contractor shall provide a list of all contact persons. The list shall include each trade, name of Contractor, contact person(s), phone numbers, fax numbers, Federal Employer Identification Number (FEIN), social security number if FEIN is not available, and Connecticut Tax Registration number.
2. Prior to the start of work all Contractor and Sub-Contactor personnel assigned to perform work shall be required to fill out and submit to a background check at a cost provided by the Contractor. All information shall be submitted to the City of Waterbury. Information for background check includes the following:

    a. Identity Verification
    b. Criminal Background
    c. Additional checks as deemed warranted.

3. Security badges will be worn by all project personnel during construction activities. The Contractor will provide badges at no cost to the Owner. The Contractor will be responsible for monitoring the display of badges, including those of the personnel of all subcontractors and visitors to the project site.

H. Public Health Emergency:

1. The Contractor shall anticipate and incorporate in their Bids all potential costs related to a public health emergency such as the COVID-19/Coronavirus Pandemic, including rules, regulations, and recommendations issued by public authorities. The potential costs may include, but are not limited to, costs related to social distancing, manpower levels, project scheduling, construction coordination, material/product supplies and delivery delays, material escalation costs, increased subcontractor/supplier costs, loss of productivity and inefficiency costs, extended general conditions costs, and any other potential costs.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.

1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to the Contractor. If necessary, additional requirements will be issued by Change Order.

B. Types of allowances include the following:

1. Quantity allowances.

C. Related Sections:

1. Section 012200 "Unit Prices" for procedures for using unit prices.
2. Divisions 02 through 49 Sections for items of Work covered by allowances.

1.3 SELECTION AND PURCHASE

A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.

B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

C. Purchase products and systems selected by Architect from the designated supplier.

1.4 SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

C. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.

D. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 COORDINATION

A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.6 QUANTITY/LUMP-SUM ALLOWANCES

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight, and delivery to Project site.

B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner under allowance shall be included as part of the Contract Sum and not part of the allowance.

C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.7 ADJUSTMENT OF ALLOWANCES

A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.

1. Include installation costs in purchase amount only where indicated as part of the allowance.
2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances.
4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.

1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.
2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

A. **Allowance No. 1: Tectum Roof Deck Replacement:** Include in the Base Bid an allowance to replace 900 square feet of tectum decking that may be deteriorated under the existing roofs. Should tectum decking be encountered that at the Architect's direction requires removal, the Contractor shall do so, deducting the amount of the affected installation(s) from the allowance amount. Removal and replacement, to match existing, shall include all fasteners, accessories, removal, and disposal (including all manpower, tools, and materials). Refer to Section 035113 “Cementitious Wood Fiber and Gypsum Decks” for additional information.

END OF SECTION 012100

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for unit prices.

B. Related Sections:

1. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.

1.3 DEFINITIONS

A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. A list of unit prices is included in the Bid Form.

END OF SECTION 012200

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

C. Execute accepted alternates under the same conditions as other work of the Contract. No extensions of time shall be granted for accepted alternates.

D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. **DEDUCT ALTERNATE #1: Twenty (20) Year Warranty:** Deduct from the Base Bid the cost associated from reducing the specified warranty by ten (10) years for a total of twenty (20) on the roofing membrane system indicated in Section 075216 “Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing”.

END OF SECTION 012300

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for substitutions.

B. Related Sections:

1. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.
2. Divisions 02 through 49 Sections for specific requirements and limitations for substitutions.

1.3 DEFINITIONS

A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 SUBMITTALS

A. Substitution Requests: Submit three (3) copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Substitution Request Form: Use **CSI Form 1.5C**, **13.1A**, or comparable form.
2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:

a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
c. Detailed, SIDE-BY-SIDE comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
e. Samples, where applicable or requested.
f. Certificates and qualification data, where applicable or requested.
g. List of similar installations for completed projects with project names and addresses and names and addresses of Architects and Owners.
h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
k. Cost information, including a proposal of change, if any, in the Contract Sum.
l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven (7) days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.

a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

A. Coordination: Modify or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

A. Procurement Substitution Request: Submit to Architect seven (7) days prior to date of bid opening.

B. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than fifteen (15) days prior to time required for preparation and review of related submittals.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
b. Substitution request is fully documented and properly submitted.
c. Requested substitution will not adversely affect Contractor's construction schedule.
d. Requested substitution has received necessary approvals of authorities having jurisdiction.
e. Requested substitution is compatible with other portions of the Work.
f. Requested substitution has been coordinated with other portions of the Work.
g. Requested substitution provides specified warranty.
h. If requested substitution involves more than one (1) contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

C. Substitutions for Convenience: Architect will consider requests for substitution if received within sixty (60) days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
b. Requested substitution does not require extensive revisions to the Contract Documents.
c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
d. Substitution request is fully documented and properly submitted.
e. Requested substitution will not adversely affect Contractor's construction schedule.
f. Requested substitution has received necessary approvals of authorities having jurisdiction.
g. Requested substitution is compatible with other portions of the Work.
h. Requested substitution has been coordinated with other portions of the Work.
i. Requested substitution provides specified warranty.
j. If requested substitution involves more than one (1) contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

B. Related Sections:

1. Section 016000 "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 MINOR CHANGES IN THE WORK

A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions."

1.4 PROPOSAL REQUESTS

A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.

1. Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
2. Within time specified in Proposal Request or twenty (20) days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.

    a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    c. Include costs of labor and supervision directly attributable to the change.
    d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
    e. Quotation Form: Use forms acceptable to Architect.

B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to the Architect.

1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
7. Proposal Request Form: Use form acceptable to Architect.

1.5 ADMINISTRATIVE CHANGE ORDERS

A. Allowance Adjustment: See Section 012100 "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.

B. Unit Price Adjustment: Refer to Section 012200 "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit price work.

1.6 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

1.7 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.

B. Related Sections:

1. Section 012200 "Unit Prices" for administrative requirements governing the use of unit prices.
2. Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
3. Section 013200 "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.
4. Section 013300 "Submittal Procedures" for administrative requirements governing the preparation and submittal of the submittal schedule.

1.3 SCHEDULE OF VALUES

A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.

1. Correlate line items in the schedule of values with other required administrative forms and schedules, including the following:

a. Application for Payment forms with continuation sheets.
b. Submittal schedule.
c. Items required to be indicated as separate activities in Contractor's construction schedule.

2. Submit the schedule of values to Architect at earliest possible date but no later than seven (7) days before the date scheduled for submittal of initial Applications for Payment.

B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one (1) line item for each Specification Section.

1. Identification: Include the following Project identification on the schedule of values:

a. Project name and location.
b. Name of Architect.
c. Architect's project number.
d. Contractor's name and address.
e. Date of submittal.

2. Arrange schedule of values consistent with format of AIA Document G703.

3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five percent (5%) of Contract Sum.
4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.

    a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.

6. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
7. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
8. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.

    a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.

9. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.4 APPLICATIONS FOR PAYMENT

A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.

    1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.

B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.

C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.

D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.

    1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
    2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
    3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.

4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
5. Include updated and approved Contractor's construction schedule, potential Change Order Log and Product Submittal Log.

E. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.

1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
3. Provide summary documentation for stored materials indicating the following:

    a. Materials previously stored and included in previous Applications for Payment.
    b. Work completed for this Application utilizing previously stored materials.
    c. Additional materials stored with this Application.
    d. Total materials remaining stored, including materials with this Application.

F. Transmittal: Submit three (3) signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One (1) copy shall include waivers of lien and similar attachments if required.

1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

G. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.

1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
2. When an application shows completion of an item, submit conditional final or full waivers.
3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
5. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.

H. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:

1. List of subcontractors.
2. Schedule of values.
3. Contractor's construction schedule (preliminary if not final).
4. Products list (preliminary if not final).
5. Schedule of unit prices.
6. Submittal schedule (preliminary if not final).
7. List of Contractor's staff assignments.
8. List of Contractor's principal consultants.
9. Copies of building permits.

10. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
11. Initial progress report.
12. Report of preconstruction conference.
13. Certificates of insurance and insurance policies.
14. Performance and payment bonds.
15. Data needed to acquire Owner's insurance.

I. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing one hundred percent (100%) completion for portion of the Work claimed as substantially complete.

1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

J. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

1. Evidence of completion of Project closeout requirements.
2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
3. Updated final statement, accounting for final changes to the Contract Sum.
4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
6. AIA Document G707, "Consent of Surety to Final Payment."
7. Evidence that claims have been settled.
8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:

1. General project coordination procedures.
2. Administrative and supervisory personnel.
3. Requests for Information (RFIs).
4. Project meetings.

B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.

C. Related Sections:

1. Section 013200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
2. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
3. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

A. RFI: Request from Owner, Architect, or Contractor seeking information from each other during construction.

1.4 COORDINATION

A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one (1) part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
3. Make adequate provisions to accommodate items scheduled for later installation.

B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

1. Prepare similar memoranda for Owner and separate Contractors if coordination of their Work is required.

C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of Contractor's construction schedule.
2. Preparation of the schedule of values.
3. Installation and removal of temporary facilities and controls.
4. Delivery and processing of submittals.
5. Progress meetings.
6. Pre-installation conferences.
7. Project closeout activities.

D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

1.5 KEY PERSONNEL

A. Key Personnel Names: Within fifteen (15) days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and email addresses. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.

1. Post copies of list in project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

1.6 REQUESTS FOR INFORMATION (RFIs)

A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.

1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:

1. Project name.
2. Project number.
3. Date.
4. Name of Contractor.
5. Name of Architect.
6. RFI number, numbered sequentially.
7. RFI subject.

8. Specification Section number and title and related paragraphs, as appropriate.
9. Drawing number and detail references, as appropriate.
10. Field dimensions and conditions, as appropriate.
11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
12. Contractor's signature.
13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.

    a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.

C. RFI Forms: AIA Document G716 or comparable form.

D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven (7) working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.

1. The following RFIs will be returned without action:

    a. Requests for approval of submittals.
    b. Requests for approval of substitutions.
    c. Requests for coordination information already indicated in the Contract Documents.
    d. Requests for adjustments in the Contract Time or the Contract Sum.
    e. Requests for interpretation of Architect's actions on submittals.
    f. Incomplete RFIs or inaccurately prepared RFIs.

2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."

    a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within ten (10) days of receipt of the RFI response.

E. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven (7) days if Contractor disagrees with response.

F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:

1. Project name.
2. Name and address of Contractor.
3. Name and address of Architect.
4. RFI number including RFIs that were dropped and not submitted.
5. RFI description.
6. Date the RFI was submitted.
7. Date Architect's response was received.
8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

1.7 PROJECT MEETINGS

A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.

1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
3. Minutes: General Contractor or Construction Manager is responsible for recording significant discussions and agreements achieved. General Contractor or Construction Manager is also responsible for distributing the meeting minutes to everyone concerned including Owner and Architect, within three (3) days of the meeting.

B. Preconstruction/Preinstallation Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than fifteen (15) days after execution of the Agreement.

1. Conduct the conference to review responsibilities and personnel assignments.
2. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Discuss items of significance that could affect progress, including the following:

a. Tentative construction schedule.
b. Phasing.
c. Critical work sequencing and long-lead items.
d. Designation of key personnel and their duties.
e. Lines of communications.
f. Procedures for processing field decisions and Change Orders.
g. Procedures for RFIs.
h. Procedures for testing and inspecting.
i. Procedures for processing Applications for Payment.
j. Distribution of the Contract Documents.
k. Submittal procedures.
l. Preparation of record documents.
m. Work restrictions.
n. Working hours.
o. Owner's occupancy requirements.
p. Responsibility for temporary facilities and controls.
q. Procedures for moisture and mold control.
r. Procedures for disruptions and shutdowns.
s. Parking availability.
t. Office, work, and storage areas.
u. Equipment deliveries and priorities.
v. First aid.
w. Security.
x. Progress cleaning.
y. Refer to Section 070150.19 “Preparation for Reroofing” for additional items.

4. Minutes: General Contractor or Construction Manager is responsible for recording and distributing meeting minutes.

C. Progress Meetings: Conduct progress meetings at biweekly intervals.

1. Coordinate dates of meetings with preparation of payment requests.
2. Attendees: In addition to representatives of Owner and Architect, each Contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

    a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

        1) Review schedule for next period.

    b. Review present and future needs of each entity present, including the following:

        1) Interface requirements.
        2) Sequence of operations.
        3) Status of submittals.
        4) Deliveries.
        5) Off-site fabrication.
        6) Access.
        7) Site utilization.
        8) Temporary facilities and controls.
        9) Progress cleaning.
        10) Quality and work standards.
        11) Status of correction of deficient items.
        12) Field observations.
        13) Status of RFIs.
        14) Status of proposal requests.
        15) Pending changes.
        16) Status of Change Orders.
        17) Pending claims and disputes.
        18) Documentation of information for payment requests.

4. Minutes: General Contractor or Construction Manager is responsible for recording and distributing meeting minutes.

    a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:

1. Contractor's construction schedule.
2. Daily construction reports.
3. Material location reports.
4. Field condition reports.

B. Related Sections:

1. Section 013300 "Submittal Procedures" for submitting schedules and reports.
2. Section 014000 "Quality Requirements" for submitting a schedule of tests and inspections.

1.3 DEFINITIONS

A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.

1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
2. Predecessor Activity: An activity that precedes another activity in the network.
3. Successor Activity: An activity that follows another activity in the network.

B. Cost Loading: The allocation of the schedule of values for the completion of an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum, unless otherwise approved by Architect.

C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.

D. Event: The starting or ending point of an activity.

E. Float: The measure of leeway in starting and completing an activity.

1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.

3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

F. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.4 INFORMATIONAL SUBMITTALS

A. Format for Submittals: Submit required submittals in the following format:

1. PDF electronic file.

B. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.

1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.

C. Daily Construction Reports: Submit at weekly intervals.

D. Material Location Reports: Submit at weekly intervals.

E. Field Condition Reports: Submit at time of discovery of differing conditions.

1.5 QUALITY ASSURANCE

A. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to the Contractor's construction schedule, including, but not limited to, the following:

1. Review software limitations and content and format for reports.
2. Discuss constraints, including phasing, work stages and area separations.
3. Review delivery dates for Owner-furnished products.
4. Review schedule for work of Owner's separate contracts.
5. Review time required for review of submittals and resubmittals.
6. Review requirements for tests and inspections by independent testing and inspecting agencies.
7. Review time required for completion and startup procedures.
8. Review and finalize list of construction activities to be included in schedule.
9. Review submittal requirements and procedures.
10. Review procedures for updating schedule.

1.6 COORDINATION

A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.

B. Coordinate Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.

1. Secure time commitments for performing critical elements of the Work from entities involved.

2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Substantial Completion.

1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.

B. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:

1. Activity Duration: Define activities so no activity is longer than twenty (20) days, unless specifically allowed by Architect.
2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than sixty (60) days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
4. Substantial Completion: Indicate completion in advance of date established for Substantial Completion and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
5. Punch List and Final Completion: Include not more than thirty (30) days for punch list and final completion.

C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule and show how the sequence of the Work is affected.

1. Phasing: Arrange list of activities on schedule by phase.
2. Work Restrictions: Show the effect of the following items on the schedule:

    a. Coordination with existing construction.
    b. Uninterruptible services.
    c. Use of premises restrictions.
    d. Provisions for future construction.
    e. Seasonal variations.
    f. Environmental control.

3. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:

    a. Subcontract awards.
    b. Submittals.
    c. Purchases.
    d. Fabrication.
    e. Sample testing.
    f. Deliveries.
    g. Installation.

h. Tests and inspections.
i. Adjusting.

4. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:

a. Substantial Completion.

D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion**.**

E. Cost Correlation: At the head of schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of the Work performed as of dates used for preparation of payment requests.

1. Refer to Section 012900 "Payment Procedures" for cost reporting and payment procedures.

F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:

1. Unresolved issues.
2. Unanswered RFIs.
3. Rejected or unreturned submittals.
4. Notations on returned submittals.

G. Recovery Schedule: When periodic update indicates the Work is fourteen (14) or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.

H. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's construction schedule within seven (7) days of date established for the Notice to Proceed.

B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.

1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in ten percent (10%) increments within time bar.

2.3 REPORTS

A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:

1. List of subcontractors at Project site.
2. List of separate contractors at Project site.

3. Approximate count of personnel at Project site.
4. Equipment at Project site.
5. Material deliveries.
6. High and low temperatures and general weather conditions, including presence of rain or snow.
7. Accidents.
8. Meetings and significant decisions.
9. Stoppages, delays, shortages, and losses.
10. Meter readings and similar recordings.
11. Emergency procedures.
12. Orders and requests of authorities having jurisdiction.
13. Change Orders received and implemented.
14. Construction Change Directives received and implemented.
15. Services connected and disconnected.
16. Equipment or system tests and startups.
17. Partial completions and occupancies.
18. Substantial Completions authorized.

B. Material Location Reports: At weekly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.

C. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one (1) week before each regularly scheduled progress meeting.

1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
3. As the Work progresses, indicate final completion percentage for each activity.

B. Distribution: Distribute copies of approved schedule to Architect, Construction Administrator, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.

1. Post copies in Project meeting rooms and temporary field offices.
2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200

SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for the following:

1. Periodic construction photographs.

B. Related Sections:

1. Section 013300 "Submittal Procedures" for submitting photographic documentation.
2. Section 017700 "Closeout Procedures" for submitting photographic documentation as project record documents at Project closeout.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA

A. Digital Images: Provide images in JPG format, produced by a digital camera with minimum sensor size of eight (8) megapixels, and at an image resolution of not less than 1600 by 1200 pixels and 400 dpi.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS

A. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.

1. Maintain key plan with each set of construction photographs that identifies each photographic location.

B. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.

1. Date and Time: Include date and time in file name for each image.
2. Field Office Images: Maintain one (1) set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to Architect.

C. Periodic Construction Photographs: Take eighteen to twenty (18-20) photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.

D. Additional Photographs: Architect may request photographs in addition to periodic photographs specified.

1. In emergency situations, take additional photographs within twenty-four (24) hours of request.
2. Circumstances that could require additional photographs include, but are not limited to, the following:

    a. Immediate follow-up when on-site events result in construction damage or losses.
    b. Substantial Completion of a major phase or component of the Work.

END OF SECTION 013233

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

B. Related Sections:

1. Section 012900 "Payment Procedures" for submitting Applications for Payment and the schedule of values.
2. Section 013200 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
3. Section 017823 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
4. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

1.3 DEFINITIONS

A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as action submittals.

B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as informational submittals.

C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.

D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS

A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the Architect and additional time for handling and reviewing submittals required by those corrections.

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
2. Submit concurrently with Contractor's construction schedule. Include submittals required during the first sixty (60) days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
3. Format: Arrange the following information in a tabular format:

    a. Scheduled date for first submittal.
    b. Specification Section number and title.
    c. Submittal Category: Action, informational.
    d. Name of subcontractor.
    e. Description of the Work covered.
    f. Scheduled date for Architect's final release or approval.
    g. Scheduled dates for purchasing.
    h. Scheduled dates for installation.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

A. Architect's Digital Data Files: Electronic copies of CAD Drawings of the Contract Drawings will **not** be provided by Architect for Contractor's use in preparing submittals unless requested and Architect's user agreement properly completed.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

    a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow seven (7) days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
2. Resubmittal Review: Allow five (5) days for review of each resubmittal.
3. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow seven (7) days for initial review of each submittal.

D. Identification and Information: Place a permanent label or title block on each paper copy submittal item for identification.

1. Indicate name of firm or entity that prepared each submittal on label or title block.
2. Provide a space on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
3. Include the following information for processing and recording action taken:

    a. Project name.
    b. Date.
    c. Name of Architect.
    d. Name of Contractor.
    e. Name of subcontractor.
    f. Name of supplier.
    g. Name of manufacturer.
    h. Submittal number or other unique identifier, including revision identifier.

        1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).

    i. Number and title of appropriate Specification Section.
    j. Drawing number and detail references, as appropriate.
    k. Location(s) where product is to be installed, as appropriate.
    l. Other necessary identification.

E. Identification and Information: Identify and incorporate information in each electronic submittal file as follows:

1. Assemble complete submittal package into a single indexed file with links enabling navigation to each item.
2. Name file with submittal number or other unique identifier, including revision identifier.

    a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).

3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
4. Include the following information on an inserted cover sheet:

    a. Project name.
    b. Date.
    c. Name and address of Architect.
    d. Name of Contractor.
    e. Name of firm or entity that prepared submittal.
    f. Name of subcontractor.
    g. Name of supplier.
    h. Name of manufacturer.
    i. Number and title of appropriate Specification Section.
    j. Drawing number and detail references, as appropriate.
    k. Location(s) where product is to be installed, as appropriate.
    l. Related physical samples submitted directly.
    m. Other necessary identification.

5. Include the following information as keywords in the electronic file metadata:

a. Project name.
b. Number and title of appropriate Specification Section.
c. Manufacturer name.
d. Product name.

F. Options: Identify options requiring selection by the Architect.

G. Deviations: Identify deviations from the Contract Documents on submittals.

H. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.

I. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review received from sources other than Contractor.

1. Transmittal Form: Provide locations on form for the following information:

a. Project name.
b. Date.
c. Destination (To:).
d. Source (From:).
e. Names of subcontractor, manufacturer, and supplier.
f. Category and type of submittal.
g. Submittal purpose and description.
h. Specification Section number and title.
i. Indication of full or partial submittal.
j. Drawing number and detail references, as appropriate.
k. Transmittal number**,** numbered consecutively.
l. Submittal and transmittal distribution record.
m. Remarks.
n. Signature of transmitter.

2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

J. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

1. Note date and content of previous submittal.
2. Note date and content of revision in label or title block and clearly indicate extent of revision.
3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.

K. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

L. Use for Construction: Use only final submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

1. Submit electronic submittals via email as PDF electronic files.

a. Architect will return annotated file. Annotate and retain one (1) copy of file as an electronic Project record document file.

2. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 017700 "Closeout Procedures."
3. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
b. Provide a notarized statement on original paper copy certificates and certifications where indicated.

4. Test and Inspection Reports Submittals: Comply with requirements specified in Section 014000 "Quality Requirements."

B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:

a. Manufacturer's catalog cuts.
b. Manufacturer's product specifications.
c. Standard color charts.
d. Statement of compliance with specified referenced standards.
e. Testing by recognized testing agency.
f. Application of testing agency labels and seals.
g. Notation of coordination requirements.
h. Availability and delivery time information.

4. Submit Product Data before or concurrent with Samples.

C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:

a. Identification of products.
b. Schedules.

c. Compliance with specified standards.
d. Notation of coordination requirements.
e. Notation of dimensions established by field measurement.
f. Relationship and attachment to adjoining construction clearly indicated.
g. Seal and signature of professional engineer if specified.

2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8½ by 11 inches but no larger than 30 by 42 inches.

D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.

1. Transmit Samples that contain multiple, related components such as accessories together in one (1) submittal package.
2. Identification: Attach label on unexposed side of Samples that includes the following:

a. Generic description of Sample.
b. Product name and name of manufacturer.
c. Sample source.
d. Number and title of applicable Specification Section.

3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

1. Type of product. Include unique identifier for each product indicated in the Contract Documents.
2. Manufacturer and product name, and model number if applicable.
3. Number and name of room or space.
4. Location within room or space.

F. Contractor's Construction Schedule: Comply with requirements specified in Section 013200 "Construction Progress Documentation."

G. Application for Payment: Comply with requirements specified in Section 012900 "Payment Procedures."

H. Schedule of Values: Comply with requirements specified in Section 012900 "Payment Procedures."

I. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design**.** Include the following information in tabular form:

1. Name, address, and telephone number of entity performing subcontract or supplying products.
2. Number and title of related Specification Section(s) covered by subcontract.
3. Drawing number and detail references, as appropriate, covered by subcontract.

J. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of Architects and Owners, and other information specified.

K. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on American Welding Society (AWS) forms. Include names of firms and personnel certified.

L. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.

M. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.

N. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

O. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.

P. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

Q. Product Test Reports: Submit written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

R. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:

1. Name of evaluation organization.
2. Date of evaluation.
3. Time period when report is in effect.
4. Product and manufacturers' names.
5. Description of product.
6. Test procedures and results.
7. Limitations of use.

S. Schedule of Tests and Inspections: Comply with requirements specified in Section 014000 "Quality Requirements."

T. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

U. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

V. Field Test Reports: Submit reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

W. Maintenance Data: Comply with requirements specified in Section 017823 "Operation and Maintenance Data."

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.

B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Section 017700 "Closeout Procedures."

C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.

B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.

C. Informational Submittals: Architect will review each submittal and will not return it or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.

D. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.

E. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.

F. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 013300

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1. Specific quality-assurance and -control requirements for individual work results are specified in their respective Specification Sections. Requirements in individual Sections may also cover production of standard products.
2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
3. Requirements for Contractor to provide quality-assurance and quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

C. Related Sections:

1. Divisions 02 through 49 Sections for specific test and inspection requirements.

1.3 DEFINITIONS

A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.

B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor’s quality-control services do not include contract enforcement activities performed by Architect.

C. Preconstruction Testing: Tests and inspections performed specifically for the Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.

D. Product Tests: Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.

E. Source Quality-Control Tests: Tests and inspections that are performed at the source; for example, plant, mill, factory, or shop.

F. Field Quality-Control Tests: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

H. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.

1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade or trades.

I. Experienced: When used with an entity or individual, "experienced" unless otherwise further described means having successfully completed a minimum of five (5) previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 CONFLICTING REQUIREMENTS

A. Conflicting Standards and Other Requirements: If compliance with two (2) or more standards or requirements are specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for direction before proceeding.

B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.5 INFORMATIONAL SUBMITTALS

A. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility submitted to authorities having jurisdiction before starting work on the following systems.

1. Seismic-force-resisting system, designated seismic system, or component listed in the Statement of Special Inspections.
2. Main wind-force-resisting system or a wind-resisting component listed in the Statement of Special Inspections.

B. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

C. Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1. Specification Section number and title.

2. Entity responsible for performing tests and inspections.
3. Description of test and inspection.
4. Identification of applicable standards.
5. Identification of test and inspection methods.
6. Number of tests and inspections required.
7. Time schedule or time span for tests and inspections.
8. Requirements for obtaining samples.
9. Unique characteristics of each quality-control service.

D. Reports: Prepare and submit certified written reports and documents as specified.

E. Permits, Licenses, and Certificates: For Owner's record, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents established for compliance with standards and regulations bearing on performance of the Work.

1.6 REPORTS AND DOCUMENTS

A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of technical representative making report.
2. Statement on condition of substrates and their acceptability for installation of product.
3. Statement that products at Project site comply with requirements.
4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
6. Statement whether conditions, products, and installation will affect warranty.
7. Other required items indicated in individual Specification Sections.

C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of factory-authorized service representative making report.
2. Statement that equipment complies with requirements.
3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
4. Statement whether conditions, products, and installation will affect warranty.
5. Other required items indicated in individual Specification Sections.

1.7 QUALITY ASSURANCE

A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.

B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.

C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

D. Installer Qualifications: A firm or individual experienced in installing, erecting, applying, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.

F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.

1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.

G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.

H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

1.8 QUALITY CONTROL

A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.

1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
3. Costs for testing that is cancelled will be charged to the Contractor, and the Contract Sum will be adjusted by Change Order.

B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify that the Work complies with requirements.

1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
2. Engage a qualified testing agency to perform these quality-control services.

    a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.

3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."

D. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.

E. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.

F. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.

2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
6. Do not perform any duties of Contractor.

G. Associated Contractor Services: Cooperate with agencies and representatives performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspection. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Delivery of samples to testing agencies.
6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
7. Security and protection for samples and for testing and inspecting equipment at Project site.

H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.9 SPECIAL TESTS AND INSPECTIONS

A. Special Tests and Inspections: Conducted by a qualified testing agency as required by authorities having jurisdiction, as indicated in individual Specification Sections, and as follows:

1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect, Contractor and to authorities having jurisdiction.
4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
6. Retesting and reinspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

A. Prepare a record of tests and inspections. Include the following:

1. Date test or inspection was conducted.
2. Description of the Work tested or inspected.
3. Date test or inspection results were transmitted to Architect.
4. Identification of testing agency or special inspector conducting test or inspection.

B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.

1. Submit log at Project closeout as part of Project Record Documents.

3.2 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

SECTION 014200 - REFERENCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 DEFINITIONS

A. General: Basic Contract definitions are included in the Conditions of the Contract.

B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.

C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."

D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."

E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.

F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.

G. "Install": Unload, temporarily store, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, and similar operations at Project site.

H. "Provide": Furnish and install, complete and ready for the intended use.

I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.3 INDUSTRY STANDARDS

A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.

1. For standards referenced by applicable building codes, comply with dates of standards as listed in building codes.

C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.4 ABBREVIATIONS AND ACRONYMS

A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale's "Encyclopedia of Associations: National Organizations of the U.S." or in Columbia Books' "National Trade & Professional Associations of the United States."

1. AABC - Associated Air Balance Council; www.aabc.com.
2. AAMA - American Architectural Manufacturers Association; www.aamanet.org.
3. AAPFCO - Association of American Plant Food Control Officials; www.aapfco.org.
4. AASHTO - American Association of State Highway and Transportation Officials; www.transportation.org.
5. AATCC - American Association of Textile Chemists and Colorists; www.aatcc.org.
6. ABMA - American Bearing Manufacturers Association; www.americanbearings.org.
7. ABMA - American Boiler Manufacturers Association; www.abma.com.
8. ACI - American Concrete Institute; (Formerly: ACI International); www.concrete.org.
9. ACPA - American Concrete Pipe Association; www.concrete-pipe.org.
10. AEIC - Association of Edison Illuminating Companies, Inc. (The); www.aeic.org.
11. AF&PA - American Forest & Paper Association; www.afandpa.org.
12. AGA - American Gas Association; www.aga.org.
13. AHAM - Association of Home Appliance Manufacturers; www.aham.org.
14. AHRI - Air-Conditioning, Heating, and Refrigeration Institute (The); www.ahrinet.org.
15. AI - Asphalt Institute; www.asphaltinstitute.org.
16. AIA - American Institute of Architects (The); www.aia.org.
17. AISC - American Institute of Steel Construction; www.aisc.org.
18. AISI - American Iron and Steel Institute; www.steel.org.
19. AITC - American Institute of Timber Construction; www.aitc-glulam.org.
20. AMCA - Air Movement and Control Association International, Inc.; www.amca.org.
21. ANSI - American National Standards Institute; www.ansi.org.
22. AOSA - Association of Official Seed Analysts, Inc.; www.aosaseed.com.
23. APA - APA - The Engineered Wood Association; www.apawood.org.
24. APA - Architectural Precast Association; www.archprecast.org.
25. API - American Petroleum Institute; www.api.org.
26. ARI - Air-Conditioning & Refrigeration Institute; (See AHRI).
27. ARI - American Refrigeration Institute; (See AHRI).
28. ARMA - Asphalt Roofing Manufacturers Association; www.asphaltroofing.org.
29. ASCE - American Society of Civil Engineers; www.asce.org.
30. ASCE/SEI - American Society of Civil Engineers/Structural Engineering Institute; (See ASCE).
31. ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning Engineers; www.ashrae.org.
32. ASME - ASME International; (American Society of Mechanical Engineers); www.asme.org.
33. ASSE - American Society of Sanitary Engineering; www.asse-plumbing.org.
34. ASSP - American Society of Safety Professionals (The); www.assp.org.
35. ASTM - ASTM International; www.astm.org.
36. ATIS - Alliance for Telecommunications Industry Solutions; www.atis.org.
37. AVIXA - Audiovisual and Integrated Experience Association; (Formerly: Infocomm International); www.soundandcommunications.com.

38. AWEA - American Wind Energy Association; www.awea.org.
39. AWI - Architectural Woodwork Institute; www.awinet.org.
40. AWMAC - Architectural Woodwork Manufacturers Association of Canada; www.awmac.com.
41. AWPA - American Wood Protection Association; www.awpa.com.
42. AWS - American Welding Society; www.aws.org.
43. AWWA - American Water Works Association; www.awwa.org.
44. BHMA - Builders Hardware Manufacturers Association; www.buildershardware.com.
45. BIA - Brick Industry Association (The); www.gobrick.com.
46. BICSI - BICSI, Inc.; www.bicsi.org.
47. BIFMA - BIFMA International; (Business and Institutional Furniture Manufacturer's Association); www.bifma.org.
48. BISSC - Baking Industry Sanitation Standards Committee; www.bissc.org.
49. BWF - Badminton World Federation; (Formerly: International Badminton Federation); www.bissc.org.
50. CDA - Copper Development Association; www.copper.org.
51. CE - Conformite Europeenne; www.ec.europa.eu/growth/single-market/ce-marking.
52. CEA - Canadian Electricity Association; www.electricity.ca.
53. CFFA - Chemical Fabrics and Film Association, Inc.; www.chemicalfabricsandfilm.com.
54. CFSEI - Cold-Formed Steel Engineers Institute; www.cfsei.org.
55. CGA - Compressed Gas Association; www.cganet.com.
56. CIMA - Cellulose Insulation Manufacturers Association; www.cellulose.org.
57. CISCA - Ceilings & Interior Systems Construction Association; www.cisca.org.
58. CISPI - Cast Iron Soil Pipe Institute; www.cispi.org.
59. CLFMI - Chain Link Fence Manufacturers Institute; www.chainlinkinfo.org.
60. CPA - Composite Panel Association; www.compositepanel.org.
61. CRI - Carpet and Rug Institute (The); www.carpet-rug.org.
62. CRRC - Cool Roof Rating Council; www.coolroofs.org.
63. CRSI - Concrete Reinforcing Steel Institute; www.crsi.org.
64. CSA - CSA Group; www.csa-group.org.
65. CSI - Construction Specifications Institute (The); www.csiresources.org.
66. CSSB - Cedar Shake & Shingle Bureau; www.cedarbureau.org.
67. CTA - Consumer Technology Association; www.cta.tech.
68. CTI - Cooling Technology Institute; (Formerly: Cooling Tower Institute); www.coolingtechnology.org.
69. CWC - Composite Wood Council; (See CPA).
70. DASMA - Door and Access Systems Manufacturers Association; www.dasma.com.
71. DHA - Decorative Hardwoods Association; (Formerly: Hardwood Plywood & Veneer Association); www.decorativehardwoods.org.
72. DHI - Door and Hardware Institute; www.dhi.org.
73. ECA - Electronic Components Association; (See ECIA).
74. ECAMA - Electronic Components Assemblies & Materials Association; (See ECIA).
75. ECIA - Electronic Components Industry Association; www.ecianow.org.
76. EIA - Electronic Industries Alliance; (See TIA).
77. EIMA - EIFS Industry Members Association; www.eima.com.
78. EJMA - Expansion Joint Manufacturers Association, Inc.; www.ejma.org.
79. EOS/ESD Association; (Electrostatic Discharge Association); www.esda.org.
80. ESTA - Entertainment Services and Technology Association; (See PLASA).
81. ETL - Intertek (See Intertek); www.intertek.com.
82. EVO - Efficiency Valuation Organization; www.evo-world.org.
83. FCI - Fluid Controls Institute; www.fluidcontrolsinstitute.org.
84. FIBA - Federation Internationale de Basketball; (The International Basketball Federation); www.fiba.com.
85. FIVB - Federation Internationale de Volleyball; (The International Volleyball Federation); www.fivb.org.
86. FM Approvals - FM Approvals LLC; www.fmglobal.com.

87. FM Global - FM Global; (Formerly: FMG - FM Global); www.fmglobal.com.
88. FRSA - Florida Roofing, Sheet Metal Contractors Association, Inc.; www.floridaroof.com.
89. FSA - Fluid Sealing Association; www.fluidsealing.com.
90. FSC - Forest Stewardship Council U.S.; www.fscus.org.
91. GA - Gypsum Association; www.gypsum.org.
92. GANA - Glass Association of North America; (See NGA).
93. GS - Green Seal; www.greenseal.org.
94. HI - Hydraulic Institute; www.pumps.org.
95. HI/GAMA - Hydronics Institute/Gas Appliance Manufacturers Association; (See AHRI).
96. HMMA - Hollow Metal Manufacturers Association; (See NAAMM).
97. HPVA - Hardwood Plywood & Veneer Association; (See DHA).
98. HPW - H. P. White Laboratory, Inc.; www.hpwhite.com.
99. IAPSC - International Association of Professional Security Consultants; www.iapsc.org.
100. IAS - International Accreditation Service; www.iasonline.org.
101. ICBO - International Conference of Building Officials; (See ICC).
102. ICC - International Code Council; www.iccsafe.org.
103. ICEA - Insulated Cable Engineers Association, Inc.; www.icea.net.
104. ICPA - International Cast Polymer Association; www.theicpa.com.
105. ICRI - International Concrete Repair Institute, Inc.; www.icri.org.
106. IEC - International Electrotechnical Commission; www.iec.ch.
107. IEEE - Institute of Electrical and Electronics Engineers, Inc. (The); www.ieee.org.
108. IES - Illuminating Engineering Society; (Formerly: Illuminating Engineering Society of North America); www.ies.org.
109. IESNA - Illuminating Engineering Society of North America; (See IES).
110. IEST - Institute of Environmental Sciences and Technology; www.iest.org.
111. IGMA - Insulating Glass Manufacturers Alliance; www.igmaonline.org.
112. IGSHPA - International Ground Source Heat Pump Association; www.igshpa.org.
113. II - Infocomm International; (See AVIXA).
114. ILI - Indiana Limestone Institute of America, Inc.; www.iliai.com.
115. Intertek - Intertek Group; (Formerly: ETL SEMCO; Intertek Testing Service NA); www.intertek.com.
116. ISA - International Society of Automation (The); (Formerly: Instrumentation, Systems, and Automation Society); www.isa.org.
117. ISAS - Instrumentation, Systems, and Automation Society (The); (See ISA).
118. ISFA - International Surface Fabricators Association; (Formerly: International Solid Surface Fabricators Association); www.isfanow.org.
119. ISO - International Organization for Standardization; www.iso.org.
120. ISSFA - International Solid Surface Fabricators Association; (See ISFA).
121. ITU - International Telecommunication Union; www.itu.int.
122. KCMA - Kitchen Cabinet Manufacturers Association; www.kcma.org.
123. LMA - Laminating Materials Association; (See CPA).
124. LPI - Lightning Protection Institute; www.lightning.org.
125. MBMA - Metal Building Manufacturers Association; www.mbma.com.
126. MCA - Metal Construction Association; www.metalconstruction.org.
127. MFMA - Maple Flooring Manufacturers Association, Inc.; www.maplefloor.org.
128. MFMA - Metal Framing Manufacturers Association, Inc.; www.metalframingmfg.org.
129. MHI - Material Handling Industry of America; www.mhia.org.
130. MIA - Marble Institute of America; (See NSI).
131. MMPA - Moulding & Millwork Producers Association; www.wmmpa.com.
132. MPI - Master Painters Institute; www.paintinfo.com.
133. MSS - Manufacturers Standardization Society of The Valve and Fittings Industry Inc.; www.mss-hq.org.
134. NAAMM - National Association of Architectural Metal Manufacturers; www.naamm.org.
135. NACE - NACE International; (National Association of Corrosion Engineers International); www.nace.org.
136. NADCA - National Air Duct Cleaners Association; www.nadca.com.

137. NAIMA - North American Insulation Manufacturers Association; www.naima.org.
138. NALP - National Association of Landscape Professionals; www.landscapeprofessionals.org.
139. NBGQA - National Building Granite Quarries Association, Inc.; www.nbgqa.com.
140. NBI - New Buildings Institute; www.newbuildings.org.
141. NCAA - National Collegiate Athletic Association (The); www.ncaa.org.
142. NCMA - National Concrete Masonry Association; www.ncma.org.
143. NEBB - National Environmental Balancing Bureau; www.nebb.org.
144. NECA - National Electrical Contractors Association; www.necanet.org.
145. NeLMA - Northeastern Lumber Manufacturers Association; www.nelma.org.
146. NEMA - National Electrical Manufacturers Association; www.nema.org.
147. NETA - InterNational Electrical Testing Association; www.netaworld.org.
148. NFHS - National Federation of State High School Associations; www.nfhs.org.
149. NFPA - National Fire Protection Association; www.nfpa.org.
150. NFPA - NFPA International; (See NFPA).
151. NFRC - National Fenestration Rating Council; www.nfrc.org.
152. NGA - National Glass Association (The); (Formerly: Glass Association of North America); www.glass.org.
153. NHLA - National Hardwood Lumber Association; www.nhla.com.
154. NLGA - National Lumber Grades Authority; www.nlga.org.
155. NOFMA - National Oak Flooring Manufacturers Association; (See NWFA).
156. NOMMA - National Ornamental & Miscellaneous Metals Association; www.nomma.org.
157. NRCA - National Roofing Contractors Association; www.nrca.net.
158. NRMCA - National Ready Mixed Concrete Association; www.nrmca.org.
159. NSF - NSF International; www.nsf.org.
160. NSI - National Stone Institute; (Formerly: Marble Institute of America); www.naturalstoneinstitute.org.
161. NSPE - National Society of Professional Engineers; www.nspe.org.
162. NSSGA - National Stone, Sand & Gravel Association; www.nssga.org.
163. NTMA - National Terrazzo & Mosaic Association, Inc. (The); www.ntma.com.
164. NWFA - National Wood Flooring Association; www.nwfa.org.
165. NWRA - National Waste & Recycling Association; www.wasterecycling.org
166. PCI - Precast/Prestressed Concrete Institute; www.pci.org.
167. PDI - Plumbing & Drainage Institute; www.pdionline.org.
168. PLASA - PLASA; (Formerly: ESTA - Entertainment Services and Technology Association); www.plasa.org.
169. RCSC - Research Council on Structural Connections; www.boltcouncil.org.
170. RFCI - Resilient Floor Covering Institute; www.rfci.com.
171. RIS - Redwood Inspection Service; www.redwoodinspection.com.
172. SAE - SAE International; www.sae.org.
173. SCTE - Society of Cable Telecommunications Engineers; www.scte.org.
174. SDI - Steel Deck Institute; www.sdi.org.
175. SDI - Steel Door Institute; www.steeldoor.org.
176. SEFA - Scientific Equipment and Furniture Association (The); www.sefalabs.com.
177. SEI/ASCE - Structural Engineering Institute/American Society of Civil Engineers; (See ASCE).
178. SIA - Security Industry Association; www.siaonline.org.
179. SJI - Steel Joist Institute; www.steeljoist.org.
180. SMA - Screen Manufacturers Association; www.smainfo.org.
181. SMACNA - Sheet Metal and Air Conditioning Contractors' National Association; www.smacna.org.
182. SMPTE - Society of Motion Picture and Television Engineers; www.smpte.org.
183. SPFA - Spray Polyurethane Foam Alliance; www.sprayfoam.org.
184. SPIB - Southern Pine Inspection Bureau; www.spib.org.
185. SPRI - Single Ply Roofing Industry; www.spri.org.
186. SRCC - Solar Rating & Certification Corporation; www.solar-rating.org.

187. SSINA - Specialty Steel Industry of North America; www.ssina.com.
188. SSPC - SSPC: The Society for Protective Coatings; www.sspc.org.
189. STI - Steel Tank Institute; www.steeltank.com.
190. SWI - Steel Window Institute; www.steelwindows.com.
191. SWPA - Submersible Wastewater Pump Association; www.swpa.org.
192. TCA - Tilt-Up Concrete Association; www.tilt-up.org.
193. TCNA - Tile Council of North America, Inc.; www.tileusa.com.
194. TEMA - Tubular Exchanger Manufacturers Association, Inc.; www.tema.org.
195. TIA - Telecommunications Industry Association (The); (Formerly: TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance); www.tiaonline.org.
196. TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance; (See TIA).
197. TMS - The Masonry Society; www.masonrysociety.org.
198. TPI - Truss Plate Institute; www.tpinst.org.
199. TPI - Turfgrass Producers International; www.turfgrasssod.org.
200. TRI - Tile Roofing Institute; www.tileroofing.org.
201. UL - Underwriters Laboratories Inc.; www.ul.com.
202. UNI - Uni-Bell PVC Pipe Association; www.uni-bell.org.
203. USAV - USA Volleyball; www.usavolleyball.org.
204. USGBC - U.S. Green Building Council; www.usgbc.org.
205. USITT - United States Institute for Theatre Technology, Inc.; www.usitt.org.
206. WA - Wallcoverings Association; www.wallcoverings.org.
207. WCLIB - West Coast Lumber Inspection Bureau; www.wclib.org.
208. WCMA - Window Covering Manufacturers Association; www.wcmanet.org.
209. WDMA - Window & Door Manufacturers Association; www.wdma.com.
210. WI - Woodwork Institute; www.wicnet.org.
211. WSRCA - Western States Roofing Contractors Association; www.wsrca.com.
212. WWPA - Western Wood Products Association; http://www.wwpa.org.

B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is believed to be accurate as of the date of the Contract Documents.

1. IAPMO - International Association of Plumbing and Mechanical Officials; www.iapmo.org.
2. ICC - International Code Council; www.iccsafe.org.
3. ICC-ES - ICC Evaluation Service, LLC; www.icc-es.org.

C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Information is subject to change and is up to date as of the date of the Contract Documents.

1. COE - Army Corps of Engineers; www.usace.army.mil.
2. CPSC - Consumer Product Safety Commission; www.cpsc.gov.
3. DOC - Department of Commerce; National Institute of Standards and Technology; www.nist.gov.
4. DOD - Department of Defense; www.quicksearch.dla.mil.
5. DOE - Department of Energy; www.energy.gov.
6. EPA - Environmental Protection Agency; www.epa.gov.
7. FAA - Federal Aviation Administration; www.faa.gov.
8. FG - Federal Government Publications; www.gpo.gov/fdsys.
9. GSA - General Services Administration; www.gsa.gov.
10. HUD - Department of Housing and Urban Development; www.hud.gov.
11. LBL - Lawrence Berkeley National Laboratory; Environmental Energy Technologies Division; www.eetd.lbl.gov.

12. OSHA - Occupational Safety & Health Administration; www.osha.gov.
13. SD - Department of State; www.state.gov.
14. TRB - Transportation Research Board; National Cooperative Highway Research Program; The National Academies; www.trb.org.
15. USDA - Department of Agriculture; Agriculture Research Service; U.S. Salinity Laboratory; www.ars.usda.gov.
16. USDA - Department of Agriculture; Rural Utilities Service; www.usda.gov.
17. USDOJ - Department of Justice; Office of Justice Programs; National Institute of Justice; www.ojp.usdoj.gov.
18. USP - U.S. Pharmacopeial Convention; www.usp.org.
19. USPS - United States Postal Service; www.usps.com.

D. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.

1. CFR - Code of Federal Regulations; Available from Government Printing Office; www.govinfo.gov.
2. DOD - Department of Defense; Military Specifications and Standards; Available from DLA Document Services; www.quicksearch.dla.mil.
3. DSCC - Defense Supply Center Columbus; (See FS).
4. FED-STD - Federal Standard; (See FS).
5. FS - Federal Specification; Available from DLA Document Services; www.quicksearch.dla.mil.

    a. Available from Defense Standardization Program; www.dsp.dla.mil.
    b. Available from General Services Administration; www.gsa.gov.
    c. Available from National Institute of Building Sciences/Whole Building Design Guide; www.wbdg.org.

6. MILSPEC - Military Specification and Standards; (See DOD).
7. USAB - United States Access Board; www.access-board.gov.
8. USATBCB - U.S. Architectural & Transportation Barriers Compliance Board; (See USAB).

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014200

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements for temporary support, security, and protection facilities.

B. Related Requirements:

1. Section 011000 "Summary of Work" for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Architect, testing agencies, and authorities having jurisdiction.

B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

1.4 INFORMATIONAL SUBMITTALS

A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

B. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.

1.5 QUALITY ASSURANCE

A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

PART 2 - PRODUCTS

2.1 TEMPORARY FACILITIES

A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading, if required. Unit must be large enough

for regular job meetings, plan review areas, submittal storage and other job file and administrative functions.

B. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.

1. Sheds to be metal box storage units or have wood floors raised above the ground.
2. Store combustible materials apart from building.

2.2 EQUIPMENT

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.

B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

A. General: Install temporary service or connect to existing service.

1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

B. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.

C. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

D. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.

E. Electronic Communication Service: Regardless of availability of Owner’s service, the Contractor shall maintain at his expense secure and reliable WiFi wireless connection to internet with provisions for access by Architect, the Owner’s staff, Municipal Officials or Inspectors, and all subcontractors.

3.3 SUPPORT FACILITIES INSTALLATION

A. General: Comply with the following:

1. Provide construction for temporary sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.
2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

B. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

C. Parking: Provide temporary parking areas for construction personnel.

D. Storage and Staging: Use designated areas of Project site for storage and staging needs.

E. Project Signs: Provide Project signs as required by Owner. Unauthorized signs are not permitted.

1. Identification Signs: Provide Project identification signs.
2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.

    a. Provide temporary, directional signs for construction personnel and visitors.

3. Maintain and touch up signs so they are legible at all times.

F. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."

G. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

C. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

D. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.

E. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.

3.5 OPERATION, TERMINATION, AND REMOVAL

A. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.

B. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

B. Related Sections:

1. Section 012500 "Substitution Procedures" for requests for substitutions.
2. Section 014200 "References" for applicable industry standards for products specified.

1.3 DEFINITIONS

A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.4 ACTION SUBMITTALS

A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.

2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one (1) week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within seven (7) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.

    a. Form of Approval: As specified in Section 013300 "Submittal Procedures."
    b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.

B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two (2) or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

B. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
5. Protect stored products from damage and liquids from freezing.
6. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
3. Refer to Divisions 02 through 49. Sections for specific content requirements and particular requirements for submitting special warranties.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures:

1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
3. Products:

a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one (1) of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered, unless otherwise indicated.
b. Non-Restricted List: Where Specifications include a list of names of both available manufacturers and products, provide one (1) of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.

4. Manufacturers:

a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one (1) of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered, unless otherwise indicated.
b. Non-Restricted List: Where Specifications include a list of available manufacturers, provide a product by one (1) of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.

5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one (1) of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one (1) of the other named manufacturers.

C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.

1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.

D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:

1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
2. Detailed, SIDE-BY-SIDE comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as

performance, weight, size, durability, visual effect, and specific features and requirements indicated.

3. Evidence that proposed product provides specified warranty.
4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

1. Installation of the Work.
2. Cutting and patching.
3. Progress cleaning.
4. Starting and adjusting.
5. Protection of installed construction.
6. Correction of the Work.

B. Related Sections:

1. Section 013300 "Submittal Procedures" for submitting surveys.

1.3 DEFINITIONS

A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.

B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.4 INFORMATIONAL SUBMITTALS

A. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

1.5 QUALITY ASSURANCE

A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.

1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from the Architect before proceeding. Shore, brace, and support structural element during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.
2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.

3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Comply with requirements specified in other Sections.

B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to the Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:

    a. Description of the Work.
    b. List of detrimental conditions, including substrates.
    c. List of unacceptable installation tolerances.
    d. Recommended corrections.

2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of the Contractor, submit a request for information to Architect according to requirements in Section 013100 "Project Management and Coordination."

3.3 INSTALLATION

A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb and make horizontal work level.
2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.

F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
2. Allow for building movement, including thermal expansion and contraction.

H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.4 CUTTING AND PATCHING

A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Temporary Support: Provide temporary support of work to be cut.

C. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

D. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching.

E. Existing Utility Services: Where existing services are required to be removed, relocated, or abandoned, bypass such systems before cutting to minimize interruption to occupied areas.

F. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
4. Proceed with patching after construction operations requiring cutting are complete.

G. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.

    a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    b. Restore damaged pipe covering to its original condition.

3. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
4. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

H. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.5 PROGRESS CLEANING

A. General: Clean Project site and work areas daily at the end of each workday, including common areas. Empty or remove dumpsters at the end of each work week. Enforce requirements strictly. Dispose of materials lawfully.

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
2. Do not hold waste materials more than seven (7) days during normal weather or three (3) days if the temperature is expected to rise above 80 deg F (27 deg C).
3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

    a. Utilize containers intended for holding waste materials of type to be stored.

4. Coordinate progress cleaning for joint-use areas where more than one installer has worked.

B. Site: Maintain Project site free of waste materials and debris.

C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.

1. Remove liquid spills promptly.
2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.

D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 015000 "Temporary Facilities and Controls."

H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.6 STARTING AND ADJUSTING

A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.

B. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.

C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

D. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements."

3.7 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.8 CORRECTION OF THE WORK

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.

1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

B. Restore permanent facilities used during construction to their specified condition.

C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

1. Substantial Completion procedures.
2. Final completion procedures.
3. Warranties.

B. Related Sections:

1. Section 017300 "Execution" for progress cleaning of Project site.
2. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
3. Section 017839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
4. Divisions 02 through 49 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.3 SUBSTANTIAL COMPLETION

A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete with request.

1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
2. Advise Owner of pending insurance changeover requirements.
3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
5. Prepare and submit Project Record Documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, and similar final record information.
6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
7. Complete startup testing of systems.
8. Submit test/adjust/balance records.
9. Terminate and remove temporary facilities from Project site, along with construction tools and similar elements.
10. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
11. Complete final cleaning requirements, including touchup painting.

12. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for final completion.

1.4 FINAL COMPLETION

A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:

1. Submit a final Application for Payment according to Section 012900 "Payment Procedures."
2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
5. Secure and provide both temporary and final Certificate of Occupancy from the Building Official, meeting all local and state permit closeout requirements.

B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

C. CT DOE OSCG&R Closeout Assistance:

1. The Contractor shall assist the Architect and Owner with the Office of School Construction Grants and Review closeout and any audit of the project by providing supplemental cost or scope information related to their work or change orders that were executed during the course of the project. This assistance may require administrative support from the Contractor’s office but may also require in-person attendance at meetings with the Owner, and any information requested by the Owner must be provided within five (5) calendar days of the request.
2. This closeout service shall be provided at no additional expense to the project and may be required as much as twenty-four (24) months after the final date of substantial completion of the project.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use **CSI Form 14.1A** or comparable form.

1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
3. Include the following information at the top of each page:

    a. Project name.
    b. Date.
    c. Name of Architect.
    d. Name of Contractor.
    e. Page number.

4. Submit list of incomplete items in the following format:

    a. PDF electronic file. Architect will return annotated file.

1.6 WARRANTIES

A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

B. Partial Occupancy: Submit properly executed warranties within fifteen (15) days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.

C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.

1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8½-by-11-inch paper.
2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
4. Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide table of contents at beginning of document.

D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION (Not Used)

END OF SECTION 017700

SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:

1. Operation and maintenance documentation directory.
2. Emergency manuals.
3. Systems and equipment operation manuals.
4. Systems and equipment maintenance manuals.
5. Product maintenance manuals.

B. Related Sections:

1. Section 013300 "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
2. Divisions 02 through 49 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.3 DEFINITIONS

A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.

B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 CLOSEOUT SUBMITTALS

A. Manual Content: Operations and maintenance manual content is specified in individual specification sections, and as reviewed and approved at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.

1. Architect will comment on whether content of operation and maintenance submittals is acceptable.
2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.

B. Format: Submit operations and maintenance manuals in the following format:

1. Two (2) thumb drives. Enable review comments on draft submittals.
2. Two (2) paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves. Architect will return both copies to be given to the Owner.

C. Initial Manual Submittal: Submit draft copy of each manual at least thirty (30) days before commencing demonstration and training. Architect will comment on whether general scope and content of manual are acceptable.

D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least fifteen (15) days before commencing demonstration and training. Architect will return copy with comments.

1. Correct or modify each manual to comply with Architect's comments. Submit copies of each corrected manual within fifteen (15) days of receipt of Architect's comments and prior to commencing demonstration and training.

E. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

1.5 FORMAT OF OPERATION AND MAINTENANCE MANUALS

A. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.

1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
2. File Names and Bookmarks: Bookmark individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.

B. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.

1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8½-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.

a. If two (2) or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, subject matter of contents, and indicate Specification Section number on bottom of spine. Indicate volume number for multiple-volume sets.

2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment. Enclose title pages and directories in clear plastic sleeves.
4. Supplementary Text: Prepared on 8½-by-11-inch white bond paper.

5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.

    a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
    b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

1.6 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

A. Organization of Manuals: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:

1. Title page.
2. Table of contents.
3. Manual contents.

B. Title Page: Include the following information:

1. Subject matter included in manual.
2. Name and address of Project.
3. Name and address of Owner.
4. Date of submittal.
5. Name and contact information for Contractor.
6. Name and contact information for Architect.
7. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
8. Cross-reference to related systems in other operation and maintenance manuals.

C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.

1. If operation or maintenance documentation requires more than one (1) volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.

D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one (1) system into a single binder.

1.7 EMERGENCY MANUALS

A. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.

B. Content: Organize manual into a separate section for each of the following:

1. Type of emergency.
2. Emergency instructions.
3. Emergency procedures.

C. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:

1. Fire.
2. Flood.
3. Gas leak.
4. Water leak.
5. Power failure.
6. Water outage.
7. System, subsystem, or equipment failure.
8. Chemical release or spill.

D. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.

E. Emergency Procedures: Include the following, as applicable:

1. Instructions on stopping.
2. Shutdown instructions for each type of emergency.
3. Operating instructions for conditions outside normal operating limits.
4. Required sequences for electric or electronic systems.
5. Special operating instructions and procedures.

1.8 SYSTEMS AND EQUIPMENT OPERATION MANUALS

A. Systems and Equipment Operation Manual: Assemble a complete set of data indicating operation of each system, subsystem, and piece of equipment not part of a system. Include information required for daily operation and management, operating standards, and routine and special operating procedures.

1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.

B. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:

1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
2. Performance and design criteria if Contractor is delegated design responsibility.
3. Operating standards.
4. Operating procedures.
5. Operating logs.
6. Wiring diagrams.
7. Control diagrams.
8. Piped system diagrams.
9. Precautions against improper use.
10. License requirements including inspection and renewal dates.

C. Descriptions: Include the following:

1. Product name and model number. Use designations for products indicated on Contract Documents.

2. Manufacturer's name.
3. Equipment identification with serial number of each component.
4. Equipment function.
5. Operating characteristics.
6. Limiting conditions.
7. Performance curves.
8. Engineering data and tests.
9. Complete nomenclature and number of replacement parts.

D. Operating Procedures: Include the following, as applicable:

1. Startup procedures.
2. Equipment or system break-in procedures.
3. Routine and normal operating instructions.
4. Regulation and control procedures.
5. Instructions on stopping.
6. Normal shutdown instructions.
7. Seasonal and weekend operating instructions.
8. Required sequences for electric or electronic systems.
9. Special operating instructions and procedures.

E. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.

F. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

1.9 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

A. Systems and Equipment Maintenance Manuals: Assemble a complete set of data indicating maintenance of each system, subsystem, and piece of equipment not part of a system. Include manufacturers' maintenance documentation, preventive maintenance procedures and frequency, repair procedures, wiring and systems diagrams, lists of spare parts, and warranty information.

1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
2. Prepare a separate manual for each system and subsystem, in the form of an instructional

B. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.

C. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

D. Manufacturers' Maintenance Documentation: Include the following information for each component part or piece of equipment:

1. Standard maintenance instructions and bulletins; include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one (1) item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.

    a. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.

2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
3. Identification and nomenclature of parts and components.
4. List of items recommended to be stocked as spare parts.

E. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:

1. Test and inspection instructions.
2. Troubleshooting guide.
3. Precautions against improper maintenance.
4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
5. Aligning, adjusting, and checking instructions.

F. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.

1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.

G. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.

H. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.

I. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

1. Include procedures to follow and required notifications for warranty claims.

J. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.

1. Do not use original project record documents as part of maintenance manuals.

1.10 PRODUCT MAINTENANCE MANUALS

A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.

B. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.

C. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

D. Product Information: Include the following, as applicable:

1. Product name and model number.
2. Manufacturer's name.
3. Color, pattern, and texture.
4. Material and chemical composition.
5. Reordering information for specially manufactured products.

E. Maintenance Procedures: Include manufacturer's written recommendations and the following:

1. Inspection procedures.
2. Types of cleaning agents to be used and methods of cleaning.
3. List of cleaning agents and methods of cleaning detrimental to product.
4. Schedule for routine cleaning and maintenance.
5. Repair instructions.

F. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.

G. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

1. Include procedures to follow and required notifications for warranty claims.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017823

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for project record documents, including the following:

1. Record Drawings.
2. Record Specifications.
3. Record Product Data.
4. Miscellaneous record submittals.

B. Related Sections:

1. Section 017700 "Closeout Procedures" for general closeout procedures.
2. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
3. Divisions 02 through 49 Sections for specific requirements for project record documents of the Work in those Sections.

1.3 CLOSEOUT SUBMITTALS

A. Record Drawings: Comply with the following:

1. Number of Copies: Submit one (1) set(s) of marked-up record prints.

B. Record Specifications: Submit one (1) paper copy of Project's Specifications, including addenda and contract modifications.

C. Record Product Data: Submit one (1) paper copy of each submittal.

1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

A. Record Prints: Maintain one (1) set of marked-up paper copies of the Contract Drawings and Shop Drawings.

1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.

a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
b. Accurately record information in an acceptable drawing technique.
c. Record data as soon as possible after obtaining it.
d. Record and check the markup before enclosing concealed installations.
e. Cross-reference record prints to corresponding archive photographic documentation.

2. Content: Types of items requiring marking include, but are not limited to, the following:

a. Dimensional changes to Drawings.
b. Revisions to details shown on Drawings.
c. Revisions to routing of piping and conduits.
d. Revisions to electrical circuitry.
e. Actual equipment locations.
f. Locations of concealed internal utilities.
g. Changes made by Change Order or Construction Change Directive.
h. Changes made following Architect's written orders.
i. Details not on the original Contract Drawings.
j. Field records for variable and concealed conditions.
k. Record information on the Work that is shown only schematically.

3. Mark the Contract Drawings and Shop Drawings completely and accurately. Utilize personnel proficient at recording graphic information in production of marked-up record prints.
4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
5. Mark important additional information that was either shown schematically or omitted from original Drawings.
6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

B. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.

1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
2. Format: Paper copy.
3. Identification: As follows:

a. Project name.
b. Date.
c. Designation "PROJECT RECORD DRAWINGS."
d. Name of Architect.
e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.

2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
5. Note related Change Orders, record Product Data, and record Drawings where applicable.

B. Format: Submit record Specifications as paper copy.

2.3 RECORD PRODUCT DATA

A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
3. Note related Change Orders, record Specifications, and record Drawings where applicable.

B. Format: Submit record Product Data as paper copy.

1. Include record Product Data directory organized by specification section number and title, electronically linked to each item of record Product Data.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

A. Recording: Maintain one (1) copy of each submittal during the construction period for project record document purposes. Post changes and modifications to project record documents as they occur; do not wait until the end of Project.

B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

END OF SECTION 017839

SECTION 020750 SELECTIVE DEMOLITION - ASBESTOS REMOVAL

PART 1 – GENERAL

RELATED DOCUMENTS

The Contractor, Subcontractors, and/or suppliers providing goods and services referenced in or related to this Section shall also be bound by the Related Documents identified in Division 01 Section "Summary."

1.1 SUMMARY

A. Provide selective demolition as necessary to access caulking, tars, flashing materials and all other ACMs, where applicable.

B. **All layers of Original White/Tan Drip Edge/Copper Flashing Caulk and the Original Roof Vent with Asbestos Containing Tar Coating of Roof "E" are included in the base work; no extra charge will be accepted.** Selective demolition or moving of typically non-movable objects by the Contractor may be required to gain access to all ACMs to be removed.

1.2 PROJECT CONDITIONS

A. Occupancy:

1. Areas of the building in which selective demolition may occur will be unoccupied during work. **All work will be performed only during a period when there are no children (< 18 years of age) present in any parts of the building.**

B. Existing Conditions:

1. After the project has begun, the Contractor is responsible for the condition of the structures to be selectively demolished.

2. Unforeseen Conditions: Should unforeseen conditions be encountered that affect design or function of project, investigate and fully submit an accurate, detailed, written report to the office of the Owner. While awaiting a response, reschedule operations if necessary to avoid delay of the overall project.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that necessary utilities have been disconnected and sealed, where applicable.

B. As practicable, arrange operations to reveal unknown or concealed conditions for examination and verification before removal or demolition.

C. Verify actual conditions to determine, in advance, whether removal or demolition of any element will result in structural deficiency, overloading, failure, or unplanned collapse.

1. A licensed electrical contractor shall disconnect electrical fixtures as necessary to facilitate removal of asbestos-containing materials.
2. A licensed plumbing contractor shall disconnect plumbing fixtures as necessary to facilitate removal of asbestos-containing materials.

3.2 PREPARATION

A. Traffic:

1. Do not obstruct walks or public ways without the written permission of governing authorities and of the Owner. Where routes are permitted to be closed, provide alternate routes, if required.

B. Protection:

1. Provide for the protection of authorized persons passing around or through the area of demolition.
2. Perform demolition so as to prevent damage to adjacent improvements and facilities to remain.
3. Protect walls, floors, and other new or existing work from damage during demolition operations, where applicable.

3.3 POLLUTION CONTROLS

A. Control as much as practicable the spread of dust and dirt.

B. Observe environmental regulations.

C. Do not allow water usage that may result in freezing or flooding.

D. Do not allow adjacent improvements to remain to become soiled by demolition operations.

3.4 DEMOLITION - GENERAL

Not Applicable.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

A. Promptly dispose of materials resulting from demolition operations. Non-contaminated material shall be disposed of as construction waste by the Contractor. Do not allow materials to accumulate on site.

B. All rubbish and waste material from the Work shall be neatly stacked or kept in suitable containers and removed from the premises daily. The premises shall be kept clean and in an orderly condition at all times to the satisfaction of the Owner and the Consultant.

C. Transport materials resulting from demolition operations and legally dispose of off-site.

D. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials (where applicable) and promptly dispose of off-site.

3.6 CLEANING

A. Throughout the construction period, the Contractor shall maintain the building and site free of rubbish, debris, surplus materials, and other items not required for the Work. Remove such material from the site daily to prevent accumulations. Remove all construction debris from work areas, and remove all hazardous waste and asbestos waste, as required, by the most current federal, state, and local regulations and the requirements of the specifications.

END OF SECTION

SECTION 020800 ASBESTOS REMOVAL

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. The Contractor, Subcontractors, and/or suppliers providing goods and services referenced in or related to this Section shall also be bound by the Related Documents identified in Division 01 Section "Summary."

B. Refer to other Sections of these Specifications to determine the type and extent of work therein affecting the work of this Section, whether or not such work is specifically mentioned herein.

C. Facility Support Services, LLC. (FSS's) "Limited Asbestos Inspection Report – Roof Replacement" (June 2023) for the Sprague Elementary School.

1.2 SCOPE OF WORK

A. Work outlined in this section includes all that is necessary for the complete removal and disposal of asbestos-containing and asbestos-contaminated materials identified in the areas as detailed below for the Sprague Elementary School; Waterbury, CT.
The quantities given on the following pages are provided to establish the order of magnitude of the abatement project. Actual quantities may vary. The Contractor is responsible for verification of all quantities of ACM scheduled for removal. This verification shall include an on-site walk-through inspection of the work area.

B. Coordinate this section with other Sections of these Specifications for actual quantities of work required. Location, estimated quantities, and abatement removal plan of specific items noted in paragraph A above include:

TABLE 1: LIST OF ACMs

MATERIAL	LOCATION	ESTIMATED QUANTITY
Original White/Tan Drip Edge/Copper Flashing Caulk	Roof Sections "K, H, D, and B" and adjacent "Sub-roofs"	~ 305 Linear Feet
Original Roof Vent with Asbestos Containing Tar Coating.	Roof "E"	1 Unit

1.3 DEFINITIONS

The following definitions relative to asbestos removal:

1. ABATEMENT - Procedures to control fiber releases from asbestos containing materials; includes removal, encapsulation, and enclosure.

2. AIR MONITORING - The process of measuring the airborne fiber concentration within an area or within a person's breathing zone.

3. AMENDED WATER - Water to which a surfactant has been added.

4. ASBESTOS - The name given to a number of naturally occurring fibrous silicates. This includes the serpentine forms and the amphiboles and includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite, or any of these forms, which have been chemically altered.

5. ASBESTOS PROJECT MONITOR (APM) - A professional capable of conducting air monitoring and analysis of samples for airborne fiber concentrations. This individual should be an industrial hygienist, an environmental scientist, or an engineer with experience in asbestos air monitoring and worker protection equipment and procedures. This individual should have demonstrated proficiency in conducting air sample collection in accordance with 29 CFR 1910.1001 and 29 CFR 1926.1101.

6. ASBESTOS WORK AREA - A regulated area as defined by OSHA 29 CFR 1926.1101 where asbestos removal operations are performed which is isolated by physical barriers to prevent the spread of asbestos dust, fibers, or debris. The regulated area shall comply with requirements of regulated area for demarcation, access, respirators, prohibited activities, competent persons and exposure assessments and monitoring.

7. ASBESTOS FELT - A product made by saturating felted asbestos with asphalt or other suitable binder, such as a synthetic elastomer.

8. ASBESTOS FIBERS - Those asbestos particles with a length greater than five (5) microns and a length to diameter ratio of 3:1 or greater.

9. ASPHALT SHINGLES, COMPOSITION SHINGLES OR STRIP SLATES - (Pitched Roof Shingle): a roofing material manufactured by saturating a dry felt with asphalt then coating the saturated felt with a harder asphalt mixed with a fine mineral, glass fiber, asbestos or organic stabilizer. All or part of the weather side may be covered with mineral granules, or with powdered talc or mica.

10. BASE FLASHING (ROOF) - The flashing provided by upturned edges of a watertight membrane on a roof. May contain metal and associated waterproofing material or combination of roofing felts and waterproofing at the joint between a roofing surface and a vertical surface such as a wall or parapet. Also base flashing may be present at perimeter of completely flat roofing.

11. BUILT-UP ROOFING - Composition Roofing, Felt and Gravel Roofing, Gravel Roofing) - a continuous roof covering made up of laminations or plies of saturated or coated roofing felts, alternated with layers of asphalt or coal-tar pitch and surfaced with gravel, paint or finish coat.

12. CATEGORY I NON-FRIABLE MATERIAL – Asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products.

13. CATEGORY II NON-FRIABLE MATERIAL – Any non-friable ACM not designated as Category I.

14. CAULKING - Resilient mastic compound often having a silicone bituminous or rubber base. Used to seal cracks, fill joints and prevent leakage. Typical applications: around windows and doors, at joints between two dissimilar materials. (i.e. masonry to wood, masonry to steel etc.).

15. CLEAN ROOM - An uncontaminated area or room, which is a part of the worker decontamination enclosure with provisions for storage of workers' street clothes and protective equipment.

16. CLEARANCE SAMPLING - Final air sampling performed aggressively after the completion of the removal project in a regulated area. Clearance sampling can be conducted by either of the following two methods:

    (A) Air samples collected by the air sampling professional having a fiber concentration of less than 0.01 fibers/cc of air in each of five (5) samples collected inside the containment will denote acceptable clearance sampling by Phase Contrast Microscopy (PCM).

    (B) Five air samples collected inside the containment by the air sampling professional having an average asbestos concentration of less than 70 structures per square millimeter of air will denote acceptable clearance sampling for Transmission Electron Microscopy (TEM).

17. COMPETENT PERSON - As defined by 29 CFR 1926.1101, a representative of the Abatement Contractor who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure. In addition has authority to take prompt corrective measures to eliminate such hazards during asbestos removal. Competent person shall be properly trained in accordance with Environmental Protection Agency's (EPA) Model Accreditation Plan.

18. CURTAINED DOORWAY - A device to allow ingress and egress from one area to another while permitting minimal air movement between the areas. Two curtained doorways spaced a minimum of six feet apart can form an airlock.

19. DAMP PROOFING - Application of a water impervious material to surface such as wall to prevent penetration of moisture, typically at foundation or below grade surface.

20. DECONTAMINATION ENCLOSURE SYSTEM - A series of connected areas, with curtained doorways between any two adjacent areas, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock and is adjacent and connected to the regulated area, where possible.

21. ENCAPSULANT - A liquid material which can be applied to asbestos-containing materials which controls the possible release of asbestos fibers from the materials either by creating a membrane over the surface (bridging encapsulant) or penetrating the material and binding its components together (penetrating encapsulant).

22. EQUIPMENT ROOM - Any contaminated area or a room that is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.

23. FIXED OBJECT - Unit of equipment or furniture in the work areas that cannot be removed from the work area.

24. FRIABLE ASBESTOS MATERIALS - Any material that contains more than 1% asbestos by weight, that can be crumbled, pulverized or reduced to powder by hand pressure.

25. GLAZING COMPOUND - any compound used to hold window glass in place, also referred to as putty, or glaziers' putty. Is not field-applied, usually installed during manufacture of windows.

26. GLOVE BAG - A manufactured polyethylene bag type of enclosure with built-in gloves such as is placed with an airtight seal around asbestos-containing material and which permits the asbestos-containing materials contained by the bag to be removed without releasing asbestos fibers to the atmosphere. The use of glove bag is permitted for removal and repair of small amount (less than 3 linear feet/3 square feet) of ACM.

27. HEPA FILTER - High Efficiency Particulate Air (HEPA) filter in compliance with ANSI Z9.2-1979.

28. HEPA VACUUM EQUIPMENT - Vacuum equipment equipped with a HEPA filter system for filtering the effluent air from the unit.

29. MOVABLE OBJECT - Unit of equipment or furniture in the work area that can be removed from the work area.

30. NEGATIVE AIR PRESSURE EQUIPMENT - A portable local exhaust ventilation system equipped with HEPA filtration used to create negative pressure in a regulated area (negative with respect to adjacent unregulated areas) and capable of maintaining a constant, low velocity air flow into regulated areas from adjacent unregulated areas.

31. NESHAPS - National Emissions Standard for Hazardous Air Pollutants regulations enforced by the EPA.

32. PENETRATION ROOF FLASHING - Flashing are used to waterproof pipes, supports, cables, and all roof protrusions.

33. PERMISSIBLE EXPOSURE LEVEL (PEL) - The average airborne concentration of asbestos fibers to which an employee is allowed to be exposed over an eight-hour period. The PEL established by OSHA 29 CFR 1926.1101 is 0.1 fibers per cubic centimeter of air averaged over an eight-hour time period. An airborne fiber concentration of 1.0 fibers /cc averaged over a sampling period of 30 minutes is the Excursion Limit. The Contractor is responsible for maintaining work areas in a manner that this standard is not exceeded.

.

34. PROJECT MONITOR - A professional capable of conducting air monitoring and analysis of schemes. This individual should be an industrial hygienist, an environmental scientist, or an engineer with experience in asbestos air monitoring and worker protection equipment and procedures. This individual should have demonstrated proficiency in conducting air sample collection in accordance with OSHA Title 29 CFR, Parts 1910.1001 and 1926.1101

35. REGULATED ASBESTOS-CONTAINING MATERIAL (RACM) – Is a friable ACM, or a Category I non-friable ACM that has become friable or will be or has been subjected to sanding, grinding, cutting or abrading, or Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by force expected to act on the material during demolition or renovation operations.

36. REGULATED AREA - An area established by the employer to demarcate where Class I, II, and III asbestos work is conducted and any adjoining area where debris and waste from such asbestos work accumulate, and a work area within which airborne concentrations of asbestos fibers may exceed the PEL.

37. SHOWER ROOM - A room between the clean room and the equipment room in the work decontamination enclosure with hot and cold running water and suitably arranged for employee showering during decontamination. The shower room is located in an airlock between the contaminated area and the clean area.

38. WATERPROOFING - material, usually a membrane or applied compound (tar/mastic), used to make a surface impervious to water. Includes concealed conditions (applications around doors, windows, and in wall cavities), sometimes combined with felts.

1.4 SUBMITTALS

A. The Contractor shall submit the following to the Owner prior to start of project:

1. Submit a schedule to the Architect and the Consultant that defines a timetable for executing and completing the project, including work area preparations, removal, cleanup, decontamination, and final clearance air monitoring (if applicable).
2. Submit the current valid CTDPH Asbestos Abatement Contractor license (if materials become RACM during removal) and certificate of insurance.
3. Submit the identity of the hauling contractor and location of the landfill to be used. Also, submit current valid operating permits and certificates of insurance for the transporter and landfill.
4. Submit the plans and construction details for the construction of the decontamination systems and the isolation of the work areas as may be necessary for compliance with this specification and applicable regulations.
5. Submit the training, medical, and respirator fit test records of each employee who may be on the project site.
6. Submit the qualifications of the air sampling professional that the Contractor proposed to use for this project to perform OSHA-required employee exposure monitoring.
7. Submit detailed product information on all materials and equipment proposed for asbestos abatement work on this project.
8. Submit pertinent information regarding the qualifications of the Project Supervisor (competent person) for this project as well as a list of past projects completed.
9. Submit a chain-of-command for the project.
10. Submit a site-specific Emergency Action Plan for the project.
11. Submit a written site-specific Respiratory Protection Program for employees for the Work, including make, model and National Institute of Occupational Safety and Health (NIOSH) approval numbers of respirators to be used at the Site (if applicable).
12. No work on the Site will be allowed to begin until the Architect and the Consultant as listed herein approve the Pre-Construction Submittals. Any delay caused by the Contractor's refusal or inability to submit this documentation in a timely manner does not constitute a cause for change order or a time extension;

B. The following shall be submitted to the Owner at the completion of work:

1. Completed Punch List.
2. Contractor Logs
3. Completed copies of Waste Shipment Records (WSR).

1.5 REGULATIONS AND STANDARDS

A. The Contractor shall be solely responsible for conducting this project and supervising all work in a manner which will be in conformance with all federal, state, and local regulations and guidelines pertaining to asbestos removal. Specifically, the Contractor shall comply with the requirements of the following:

1. EPA National Emissions Standards for Hazardous Air Pollutants (NESHAPS) Regulations (Title 40 CFR, Part 61, Subpart M);
2. EPA Asbestos Hazard Emergency Response Act (AHERA) Regulations (Title 40 CFR, Part 763, Subpart E)
3. OSHA Asbestos Regulations (Title 29 CFR, Parts 1910.1001 and 1926.1101);
4. Connecticut Department of Energy and Environmental Protection (DEEP) Regulations (Section 22a 209 8(i) and Section 22a 220 of the Connecticut General Statutes);
5. CTDPH Asbestos Containing Materials in Schools (Sections 19a 333-1 to 19a 333-13);
6. CTDPH Standards for Asbestos Abatement (Sections 19a-332a- 1 to 19a-332a-16);
7. CTDPH Licensing and Training Requirements for Persons Engaged in Asbestos Abatement and Asbestos Consultant Services (Sections 20-440-1 to 20-440-9 and Section 20-441);
8. United States Department of Transportation (DOT) Hazardous Materials Regulations (Title 49 CFR, Parts 171 – 180)
9. 2003 International Building Code as adopted by the 2005 State of Connecticut Building Code including the 2009, 2011, and 2013 amendments;
10. Life Safety Code (National Fire Protection Association [NFPA]);
11. Local health and safety codes, ordinances or regulations pertaining to asbestos remediation and all national codes and standards including ASTM, ANSI, and Underwriter's Laboratories.

1.6 EXEMPTIONS

A. Any deviations from these Specifications require the written approval and authorization from the Owner and Consultant.

B. Any deviation in work practices identified in CTDPH Standards for Asbestos Abatement, Sections 19a-332a-1 to 19a-332a-23, Sections 19a-333-1 through 19a-333-13, Sections 20-440-1 to 20-440-9, Section 20-441, and Section 19a-332e-1 to 19a-332e-2, must be requested in writing and approved in writing by the CTDPH.

1.7 FINAL VISUAL INSPECTION

A. Following the completion of the final cleaning phase of the work in the regulated area, the Consultant shall conduct a final visual inspection of the area. The Contractor shall be responsible for meeting final visual criteria, which is the absence of visible debris, as specified in CTDPH regulation 19a-332a-12(b).

1.8 NOTIFICATIONS, POSTINGS, SUBMITTALS, AND PERMITS

A. The Contractor shall make the following notifications and provide submittals to the following agencies prior to the commencement of removal/renovation work. These notifications are required prior to the start of the abatement/demolition project:

1. State of Connecticut
   Department of Public Health
   Indoor Air Program
   410 Capitol Avenue
   P.O. Box 340308
   Hartford, CT 06134-0308

2. United States Environmental Protection Agency
   Region 1 – New England
   5 Post Office Square, Suite 100
   Boston, MA 02109-3912

1.9 WORK SITE SAFETY PLAN

A. The Contractor shall establish a set of emergency procedures and shall post them in a conspicuous place at the work site. The safety plan should include provisions for the following:

1. Evacuation of injured workers.
2. Emergency and fire exit routes from all work areas.
3. Emergency first aid treatment.
4. Local telephone numbers for emergency services including ambulance, fire, and police.
5. Methods to notify appropriate personnel in the event of a fire or other emergency requiring evacuation of the site or area.
6. Site safety plan for fall protection.

B. The Contractor is responsible for training all workers in these procedures.

1.10 CONTROL OVER REMOVAL WORK (ASBESTOS ABATEMENT MONITORING)

A. This Section describes independent air sampling work being performed on behalf of the Owner. This work is not in the Contract Sum. This Section describes air monitoring conducted by the Consultant to verify that the outside environment remains uncontaminated. (Personal air monitoring required by OSHA is work shall be performed by the Contractor and is within the Contract Sum.)

B. The purpose of the Consultant's air monitoring is to document engineering controls utilizing during asbestos abatement are functioning properly. Air monitoring will focus on possible:
1. Contamination of the building outside of the work area by airborne asbestos fibers
2. Contamination of air outside the building envelope by airborne asbestos fibers.

C. If either of the above be determined to have occurred based on Consultant's air monitoring, then the Contractor shall immediately cease all asbestos abatement activities until the fault is corrected. Do not resume work until authorized by the Owner's Consultant. To determine if the elevated airborne fiber concentrations encountered during abatement operations have been reduced to an acceptable level below 0.010 fibers per cubic centimeter (f/cc), the Consultant will collect and analyze air samples in accordance with re-occupancy clearance air sampling requirements.

D. The Owner's Consultant may monitor total airborne fiber concentrations in the Work Area. The purpose of this air monitoring will be to detect total airborne fiber concentrations, which may challenge the ability of the work area isolation procedures to protect the balance of the building or the building exterior from possible contamination by airborne fibers.

E. To determine if the elevated airborne fiber counts encountered during abatement operations have been reduced to an acceptable level, the Consultant will collect and analyze air samples in accordance with clearance air sampling requirements.

F. The Owner's Consultant may perform on-site monitoring throughout the course of the project, as follows:
1. All work procedures shall be continuously monitored by the Consultant to assure that areas outside the designated work locations in the building will not be contaminated.
2. Prior to work on any given day, the Contractor's designated "Competent Person" shall discuss the day's work schedule with the Consultant to evaluate job tasks with respect to safety procedures and requirements specified to prevent building contamination or the employees. This includes a work area visual inspection and the building decontamination or the employees. This includes a work area visual inspection and the decontamination systems.

1.11 PROPER WORKER PROTECTION

A. This section describes the equipment and procedures required for protecting workers against asbestos contamination and other workplace hazards except for respiratory protection.

A. All workers are to be accredited and certified as Asbestos Abatement Workers as required by the CTDPH.

B. The Contractor is required to be certified, accredited, and licensed as required by the CTDPH.

D. In accordance with 29 CFR 1926.1101, all workers shall receive a training course covering the dangers inherent in handling asbestos, the dangers of breathing asbestos dust, proper work procedures, and proper worker protective measures. This course must include but is not limited to the following:

1. Methods of recognizing asbestos.
2. Health effects associated with asbestos.
3. Relationship between smoking and asbestos in producing lung cancer.
4. Nature of operations that could result in exposure to asbestos.
5. Importance of and instruction in the use of necessary protective controls, practices and procedures to minimize exposure including:
   a. Engineering controls
   b. Work practices
   c. Respirators
   d. Housekeeping procedures
   e. Hygiene facilities
   f. Protective clothing
   g. Decontamination procedures
   h. Emergency procedures
   i. Waste disposal procedures
6. Purpose, proper use, fitting, instructions, and limitations of respirators as required by 29 CFR 1910.134.

7. Appropriate work practices for the work.
8. Requirements of medical surveillance program.
9. Review of 29 CFR 1926.
10. Pressure differential systems.
11. Work practices including hands on or on-job training.
12. Personal Decontamination procedures.
13. Air monitoring, personal and area.

E. The Contractor shall provide medical examinations for all workers who may encounter an airborne fiber level of 0.1 f/cc or greater for an eight-hour Time Weighted Average (TWA). In the absence of specific airborne fiber data, provide medical examinations for all workers who will enter the work area for any reason. Examination shall at a minimum meet OSHA requirements as set forth in 29 CFR 1926.1101. In addition, provide an evaluation of the individual's ability to work in environments capable of producing heat stress in the worker.

F. Submit the following to the Owner for review. The Contractor shall not start work until the Owner/Consultant reviews the submittals and indicates that they are acceptable.

1. Certificates from an EPA-approved AHERA Abatement Workers course for each worker as evidence that each Asbestos Abatement Worker is accredited as required by the AHERA Regulation 40 CFR 763 Appendix C to Subpart E, April 30, 1987.
2. Evidence that the Contractor is certified to perform asbestos abatement work by the State of Connecticut Department of Public Health.
3. An original signed copy of the Certificate of Worker's Acknowledgment found at the end of this section, for each worker who is to be at the job site or enter the Work Area.
4. Documents verifying that each worker has had a medical examination within the last 12 months as part of compliance with OSHA medical surveillance requirements. Submit, at a minimum, for each worker the following:
    a. Name and Social Security Number.
    b. Physicians Written Opinion from examining physician including at a minimum the following:
        1) Whether worker has any detected medical conditions that would place the worker at an increased risk of material health impairment from exposure to asbestos.
        2) Any recommended limitations on the worker or on the use of personal protective equipment such as respirators.
        3) Statement that the worker has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.
5. Information that was provided to physician in compliance with 29 CFR 1926.1101.
6. A statement that the worker is able to wear and use the type of respiratory protection proposed for the project and is able to work safely in an environment capable of producing heat/cold stress in the worker.

1.12 CONTRACTOR'S AIR SAMPLING RESPONSIBILITY

A. The Contractor shall be responsible for monitoring airborne asbestos fiber concentrations in the workers' breathing zones and to establish conditions and work procedures for maintaining compliance with OSHA Regulations 29 CFR 1910.1001, and 1926.1101.

B. The Contractor's air sampling procedures shall ensure proper documentation of all personal air-sampling results. Documentation for personal sampling must be available at the job site for review by federal and/or state regulatory agencies.

C. All air sampling shall be conducted in accordance with methods described in OSHA Standards 29 CFR 1910.1001 and 1926.1101. The flow rate for air samples will not be less than 0.5 liters/minute and must not exceed 2.5 liters/minute.

1.13 RESTRICTIONS ON CONTRACTOR'S USE OF GROUNDS

A. The Contractor shall confine his/her operations to the actual work site, access routes and storage areas designated by the Owner. The Contractor may place a storage container at a place designated by the Owner.

B. The Contractor shall have sole responsibility for providing all materials, equipment, or tools and any storage required shall be at the Contractor's own risk. The Owner will not assume responsibility for any loss of materials, equipment, or tools stored on its property.

PART 2 - PRODUCTS

2.1 MATERIALS

A. A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description.

C. Damaged or deteriorating materials shall not be used and shall be removed from the Site. Material that becomes contaminated with asbestos shall be decontaminated or disposed as asbestos waste.

C. Polyethylene (poly) in a roll size to minimize the frequency of joints shall be delivered to the Site with a factory label indicating 4 or 6–mil thickness.

D. Poly disposable bags shall be 6-mil thickness with pertinent pre-printed label. Tie wraps for bags shall be plastic, five-inches long (minimum), pointed and looped to secure filled plastic bags.

E. Tape or spray-adhesive will be capable of sealing joints in adjacent poly sheets and for attachment of poly to dissimilar finished or unfinished surfaces and capable of adhering under both dry and wet conditions, including amended water.

F. Surfactant (wetting agent) shall consist of 50 percent polyoxyethylene ether and 50 percent polyoxyethylene ester, or equivalent, and shall be mixed with water to provide a concentration of one ounce surfactant to five-gallons of water or as directed by manufacturer.

G. Removal encapsulant shall be non-flammable factory prepared penetrating chemical encapsulant deemed acceptable to Consultant. Usage shall be in accordance with manufacturer’s printed technical data.

H. The Contractor shall have available spray equipment capable of mixing wetting agent with water and capable of generating sufficient pressure and volume and having sufficient hose length to reach all areas with asbestos.

I. Impermeable containers are to be used to receive and retain asbestos-containing or contaminated materials until disposal at an acceptable disposal site. The containers shall be labeled in accordance with OSHA Title 29 CFR, Part 1926.1101. Containers must be both air and watertight.

J. OSHA-required asbestos labels, warning signs and/or warning tape shall be used.

K. Encapsulant shall be bridging or penetrating type that has been deemed acceptable to the Consultant. Usage shall be in accordance with manufacturer's printed technical data.

2.2 TOOLS AND EQUIPMENT

A. The Contractor shall provide all tools and equipment necessary for asbestos removal, encapsulation and enclosure.

B. The Contractor’s air monitoring professional shall have air-monitoring equipment of type and quantity to monitor operations and conduct personnel exposure surveillance per OSHA requirements.

C. The Contractor shall have available sufficient inventory or dated purchase orders for materials necessary for the job including protective clothing, respirators, filter cartridges, poly sheeting of proper size and thickness, tape and air filters.

D. The Contractor shall provide (as needed) temporary electrical power panels, electrical power cables, and electrical power sources (such as generators). Any electrical connection work affecting the building electrical power system shall be performed by a State of Connecticut-licensed electrician.

E. The Contractor shall have available shower stalls and plumbing to support same to include sufficient hose length and drain system, or an acceptable alternate.

F. Vacuum units, of suitable size and capacities for the project, shall have HEPA filter(s) capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micrometers in diameter or larger.

2.3 ELECTRICAL

A. Any electrical installations shall be accomplished under the direction of a Licensed Electrician.

B. The Contractor shall furnish and install a portable ground fault circuit interrupters (GFCI) including the following:

1. All circuits individually GFCI-protected.
2. Components UL listed

C. The Contractor shall may use existing electrical outlets within the regulated area:

D. The Contractor will supply temporary lighting for all asbestos removal work areas, where applicable.

E. The Owner will furnish electrical power for the project.

PART 3 - EXECUTION

3.1 WORKER PROTECTION

A. General:

1. All asbestos abatement removal shall be performed in accordance with 29 CFR 1910.1001, 29 CFR 1926.1101 and State of Connecticut regulations as specified herein. Personnel shall wear and utilize protective clothing and equipment as specified herein. Eating, smoking, drinking, chewing gum, or applying cosmetics shall not be permitted in the asbestos control area. Personnel of other trades not engaged in the removal of asbestos shall not be allowed in the work area unless all the personnel protection provisions of this Specification are complied with by the trade personnel.

2. Engineering controls shall be used to minimize airborne fiber concentrations within the work area. A combination of personal protective equipment and work practices shall also be used to further reduce employee exposure to asbestos fibers.

3. The Contractor shall provide all authorized visitors with protective clothing, as in the procedures described herein and afford them the use of all facilities to keep them free of contamination from asbestos fibers.

4. The Contractor shall provide the decontamination facility for worker and equipment decontamination as well as the results of the personal air monitoring.

B. Respiratory Protection:

1. The Contractor shall select and provide at no cost to his/her employees respirators, which shall provide adequate protection to the employee as specified by Section 1910.1001(g) Table D-1 and Section 1926.1101(h) Table D-4.

2. Respiratory protection shall be worn by all persons potentially exposed to elevated airborne concentrations of asbestos fibers from the initiation of the asbestos removal project until all areas have been given clearance.

3. At a minimum, the Contractor shall provide half-face air-purifying respirators to all workers at the job site. If it is established, through collection and analysis of personal air samples in accordance with the OSHA Reference Method (ORM) (See U.S. Department of Labor; Occupational Safety and Health Administration; Occupational Exposure to Asbestos; Title 29 CFR 1910.1001, "General Industry Standard." Title 29 CFR 1926.1101, "Construction Standard") that this respiratory protection is inadequate, the Contractor will provide Powered Air Purifying Respirators or Type C (continuous flow or pressure demand) supplied air respirators.

   a. Once the exposure limits have been established, the respirators presented in 29 CFR 1910.1001 that afford adequate protection at such upper concentrations of airborne asbestos fibers shall be used.
   b. The minimum personal sampling period shall be seven hours at a flow rate of 0.5 to 2.5 liters per minute. The samples shall be collected within the workers' breathing zone. Personal sampling shall be the responsibility of the Contractor. Personal sampling results shall be available on site no later than 24 hours after sampling.
   c. The filters provided for both the cartridge respirators and the PAPR's shall be National Institute for Occupational Safety and Health (NIOSH) approved for asbestos fibers.

C. Protective Clothing:

1. The Contractor shall provide to all workers, foreman and superintendents, protective disposable clothing consisting of full body coveralls including head covers.

2. The Contractor shall provide eye protection and hard hats, as required, by job conditions and safety regulations.

3. Reusable footwear, hard hats and eye protection devices shall be left in the "contaminated equipment room" until the end of the asbestos removal work.

4. Upon completion of asbestos removal work, the footwear shall be disposed of as contaminated waste or cleaned thoroughly inside and out using soap and water before removing from work area or from equipment and access area.

5. All disposable protective clothing shall be discarded and disposed of as asbestos waste when the wearer exits from the workspace to the outside through the decontamination facilities.

6. The color of the disposable clothing worn outside the work area shall be a different color than the disposable clothing worn inside the work area.

D. Decontamination Procedures:

1. Each worker and authorized visitor without exception shall, upon entering the job site: remove street clothes in the clean change room and put on an appropriate respirator with new filters, and clean disposable protective clothing before entering the equipment room or the work area, except those workers intending to re-wear previously worn protective clothing stored in the equipment room shall enter the equipment room wearing only respirators.

2. Each time he/she leaves the work area, each worker and authorized visitor shall:

   a. Vacuum gross contamination from clothing before leaving the work area.

   b. Proceed to the equipment room and remove all clothing except respirator.

   c. Still wearing the respirator, proceed unclothed into the showers.

   d. Clean the outside of the respirator with soap and water while showering.

   e. Remove filters and wet them and dispose of filters in the container provided for that purpose.

   f. Wash and rinse the inside of the respirator. After showering, dry off with disposable towels.

3. Following showering and drying off, each worker and authorized visitor shall proceed directly to the clean change room and dress in street clothes at the end of the day's work, or before eating, smoking, or drinking.

4. Contaminated reusable work footwear shall be stored in the equipment room when not in use in the work area. Upon completion of asbestos removal work, footwear shall be disposed of as contaminated waste or cleaned inside and out using soap and water before removing these items from the work area or from the equipment and

access area. Contaminated protective clothing shall be placed in receptacles for disposal with other asbestos-contaminated materials.

3.2 WORK AREA PREPARATION

A. Where necessary deactivate electrical power. Provide GFCI devices, temporary power, and temporary lighting installed in compliance with the applicable electrical codes. All installations are to be made by a State of Connecticut-licensed electrician.

B. Deactivate and/or isolate heating, ventilating and air conditioning (HVAC) air systems or zones to prevent contamination and fiber dispersal within the structure. During the work, rooftop vents around the work area shall be completely sealed with duct tape and two layers of 6-mil thick poly.

C. Completely seal all openings, including, but not limited to, roof level HVAC air intake sources, windows adjacent to removal (within ten feet) skylights, ducts, grills, diffusers, and any other penetration of the work areas, with poly a minimum of 6-mils thick, sealed with duct tape.

3.3 DECONTAMINATION SYSTEM

A. The Contractor shall establish on-site, a remote decontamination enclosure consisting of equipment room, shower room, and clean room in series.

B. Access between rooms in the decontamination system shall be through double flap-curtained openings. The clean room, shower and equipment rooms within the decontamination enclosure shall be completely sealed.

C. Construct the decontamination system with plastic, wood, or metal framing and cover both sides with a double layer of 6-mil poly, sealed with spray glue or tape at the joints.

D. The Contractor and the Consultant shall visually inspect barriers routinely to assure effective seal and the Contractor shall repair defects immediately.

3.4 MAINTENANCE OF THE WORK AREA

A. Acceptance of Asbestos Control Area: The Contractor shall not begin removal unless approved by the APM. The control area must be constructed, the decontamination facility prepared and the supplies to be used assembled, barriers properly constructed, openings sealed, and other preparations made to allow the removal operation to proceed. If conditions are not acceptable, the Contractor shall correct deficiencies to comply with the specifications.

3.5 ASBESTOS REMOVAL PROCEDURE – GENERAL

A. Following a federal court of appeals decision, OSHA has issued a final rule on June 29, 1998, removing regulation of asbestos-containing asphalt roof cements, mastics and coatings from the OSHA standards for occupational exposure to asbestos in construction and shipyard work. However, friable materials (felts, papers, etc.) are still regulated by OSHA, federal (no visible emissions) and state entities.

B. Exterior non-friable materials which are not RACM as defined by the EPA and CTDPH are not required to be removed by a CTDPH-licensed Asbestos Abatement Contractor in the State of Connecticut. This is true as long as the proposed methods of removal will not render the Category I non-friable roofing materials RACM during proposed roof removal operations.

C. Supervisors and workers are not required to be certified in the State of Connecticut unless the Category I non-friable roofing materials become RACM. Workers must be properly trained in compliance with OSHA regulations.

D. The Contractor shall have a designated "competent person" on the job at all times to ensure proper work practices throughout the project.

E. The Contractor shall regulate the work area as required for compliance with OSHA regulation Title 29 CFR, Part 1926.1101 to prohibit non-trained workers from entering areas where ACM are to be removed.

F. The Contractor shall establish worker decontamination unit remote from the work area.

G. The Contractor shall spray asbestos materials with amended water using airless spray equipment or apply approved removal wetting agent to ensure no visible emissions during removal of Category I non-friable roofing materials.

H. The adequately-wet asbestos must be removed in manageable sections. Material drop shall not exceed eight feet. For heights up to 15 feet above ground surface, provide inclined chutes or scaffolding to intercept drop. For heights exceeding 15 feet, the Contractor shall provide an enclosed dust-proof chute.

I. After completion of stripping work, all surfaces from which ACM has been removed shall be wet cleaned or cleaned by an equivalent method to remove all visible suspect ACM (wire brushes are prohibited). During this work, the surfaces being cleaned shall be kept adequately wet, without causing a safety hazard.

J. Remove and containerize all visible accumulations of asbestos-containing and/or asbestos-contaminated debris. Waste shall be containerized in labeled and signed 6-mil poly disposable bags. Tie wraps for bags shall be plastic, 5-inches long (minimum), pointed and looped to secure filled plastic bags.

K. At any time during asbestos abatement should the Consultant suspect contamination of areas outside the work area(s), they shall issue a stop work order until the Contractor takes required steps to decontaminate these areas, and to eliminate the causes of such contamination. Unprotected individuals shall be prohibited from entering suspected contaminated areas until air sampling and visual inspections indicate acceptable decontamination.

L. The Consultant shall conduct a final visual inspection of the work area. If residual suspect ACM debris is identified during the course of the final inspection, the Contractor shall comply with the Consultant’s request to render the area clean of all residual ACM.

3.6 ASBESTOS REMOVAL PROCEDURE – ORIGINAL WHITE/TAN DRIP EDGE/COPPER FLASHING EXTERIOR CAULKING

A. The Contractor shall establish a regulated area around the perimeter of the work area. Only properly trained and licensed persons shall be permitted to enter this area.

B. Prior to beginning the removal of any ACMs, remove all movable objects from the work area. Ensure any building openings (vents, windowns, fans, etc.) de-activated, when applicable, and sealed with 6mil poly.

C. When and where feasible, lay 6mil polyethylene sheeting below the work area to act as a drop-cloth and ensure all material is collected within its foot print. The drop cloth should extend at least ten feet (10) past the plane of the work area.

D. Remove exterior caulking materials using the following procedure:

1. Wet the caulking with amended water, removal encapsulant, or detergent solution, so that entire surface is wet. Do not allow puddle or run off to other areas. Do not soak the area to the extent that water enters the interior of the structure. If a removal encapsulant is used, use in strict accordance with manufacturer's instructions. Allow time for amended water, removal encapsulant, or detergent solution to absorb prior to removal.
2. Keep caulking materials continuously wet throughout removal operation.
3. Remove caulking materials using a manual spade or stripping device. Continuously area with amended water, removal encapsulant or detergent solution. Wet any debris generated as necessary to keep continuously wet.
4. Use handheld methods, such as wire brush or hand pick, to remove the material from porous substrate, if applicable.
5. If handheld methods are not viable to clean the porous surfaces to rid them of asbestos containing caulking, utilize power tools equipped with a misting system or HEPA filtration to ensure no visible emissions occur. Continuously mist the area with amended water to eliminate the possibility of visible dust emissions.

D. Debris and Waste

1. Pick waste debris created immediately.
2. Place debris into labeled disposal bags.
3. Place bagged waste in a second labeled disposal bag and dispose of as asbestos waste.

E. Exterior caulking materials must be removed intact and placed into a labeled container for disposal.

F. At any time during asbestos removal should the material become friable, all abatement work must stop and the material will then be treated as a regulated material. A negative pressure enclosure will then be constructed and unprotected individuals shall be prohibited from entering the area

G. After completion of all removal work the Contractor shall conduct final cleaning.

3.7 ASBESTOS REMOVAL PROCEDURE – ORIGINAL ROOF VENT WITH ASBESTOS CONTAINING TAR COATING (Roof “E”)

A. Prior to beginning the removal of any asbestos containing/contaminated material, remove all movable objects from the work area. Ensure any building openings (vents, windows, fans, etc.) are de-activated, when and where applicable, and sealed with 6mil poly.

B. Remove Original Roof Vent with Asbestos Containing Tar Coating using the following procedure:

1. Remove non asbestos flashing material from the base of the vent to expose the curb.
2. Remove fasteners attaching the vent to the roof curb.
3. If fasteners are not present, mist materials with amended water and remove material adhering the unit the to curb utilizing hand methods as so to ensure no visible emissions of any material occur.

2. Once the vent is free from the curb/roof place the unit on poly sheeting as so to wrap in its entirety for disposal.
3. Lower the wrapped unit to the ground in a safe and controlled manner.

C. Debris and Waste

1. Wrap the roof vent in two (2) layers of 6mil poly, sealed, and prepped for disposal in its entirety.
2. At any time during asbestos removal should the material become friable, all abatement work must stop and the material will then be treated as a regulated material. A negative pressure enclosure will then be constructed and unprotected individuals shall be prohibited from entering the area

D. At any time during asbestos removal should the material become friable, all abatement work must stop and the material will then be treated as a regulated material. A negative pressure enclosure will then be constructed and unprotected individuals shall be prohibited from entering the area.

E. After completion of all ACM removal work, the Contractor shall conduct final cleaning.

3.8 CONSULTANT AND SUSPENSION OF WORK

A. The Owner will designate an Asbestos Consultant to perform the duties of the for this Contract. The Consultant may also act as the APM for the project.

B. The removal work shall be reviewed by the Consultant. The Contractor will request an inspection at least 24 hours in advance of requiring the inspection.

C. The Consultant will recommend that the Owner order a suspension of work based on a determination of risk of adverse health and safety impacts on the environment, workers, or the general public, or failure to comply with the Specifications/regulations. The Contractor and the Owner will be notified in writing of the reason and of the recommended resolution.

D. During the progress of the work, the Consultant, following approval by the Owner, shall have the right to make any changes, alterations, additions or omissions in the work or Specifications in accordance with the General Conditions.

E. The Consultant will provide visual inspection services throughout the Contract's duration. It shall be the Contractor's responsibility to comply with pertinent work standards and regulations.

F. The Consultant will conduct visual observations and perform inspections in the work area to evaluate that the work area remains properly secured and isolated and specified work items are properly completed. Upon completion of work in a defined work area, the Consultant will conduct a final visual inspection for the purpose of evaluating work completion. Unsatisfactory conditions shall be immediately corrected in a manner specified by the Consultant and the contract documents. Final payments shall be approved only after the Owner receives all properly completed Waste Shipment Record Forms and other required documentation and records.

3.9 CONSULTANTS' AIR SAMPLING RESPONSIBILITIES

A. Air sampling may be conducted by the Consultant to ascertain the integrity of engineering controls that protect the building from possible asbestos contamination. Independently, the Contractor shall monitor air quality within the work area to ascertain the protection of employees and to comply with OSHA regulations.

D. The Consultant's air sampling professional may collect and analyze air samples during the following time period:

1. Abatement Period. If required, the Consultant's project monitor shall collect air samples on a daily basis during the work period. A sufficient number of area air samples shall be collected upwind and downwind of the work area, waste debris chute (if applicable) and the building exterior to evaluate the degree of cleanliness or contamination of the building during removal. Additional air samples may be collected inside the work zone and decontamination system, at the discretion of the project monitor.

C. The Consultant's project monitor may provide evaluation of the air quality outside the building during removal, using their best professional judgment in respect to the CTDPH guideline of 0.010 f/cc.

D. If the project monitor determines that the air quality has become contaminated from the project, they shall immediately inform the Contractor to cease all removal operations and implement a work stoppage clean up procedure. The Contractor shall conduct a thorough cleanup of the building areas designated by the Consultant. No further removal work may occur until the project monitor has assessed that the building air has been decontaminated.

E. Abatement air samples shall be collected as required to obtain a volume of 1,200 liters of air. Air samples shall be analyzed by PCM NIOSH Method 7400 sampling protocol.

3.10 CONSULTANT'S INSPECTION RESPONSIBILITIES

A. Consultant may conduct inspections throughout the progress of the abatement project. Inspections shall be conducted to document the progress of the abatement work, as well as the procedures and practices employed by the Contractor.

B. The Consultant may perform the following inspections during the course of abatement activities:

1. Pre-commencement Inspection. Pre-commencement inspections shall be performed at the time requested by the abatement Contractor. The Consultant shall be informed a minimum of 12-hours prior to the time the inspection is required. If, during the course of the pre-commencement inspection, deficiencies are identified, the Contractor shall perform the necessary adjustments to obtain compliance.
2. Work Area Inspection. Work area inspections shall be conducted on a daily basis at the discretion of the Consultant. During the course of the work inspections, the Consultant shall observe the Contractor's removal methods and procedures, verify barrier integrity, monitor negative air filtration devices, assess project progress, and inform the Contractor of specific remedial activities if deficiencies are noted.

C. The Consultant shall perform the following inspection during the course of abatement activities:

1. Final Visual Inspection. Upon request of the Contractor, the Consultant shall conduct a final work area visual inspection. If residual dust or debris is identified during the course of the final inspection, the Contractor shall comply with the request of the Consultant to render the area “dust free.”

3.11 WASTE DISPOSAL

A. ACM disposal or asbestos-contaminated material disposal must be in compliance with requirements of and authorized by CTDEEP and CTDPH.

B. The Contractor shall obtain disposal approvals before commencing asbestos abatement.

C. A copy of approved disposal authorization shall be provided to the Owner and Consultant and any required federal, state, or local agencies.

D. The Consultant will retain copies of all Waste Shipment Records as part of the project file. On receipt, the landfill operator will sign the receipts, and the quantity of asbestos debris leaving the Site and arriving at the landfill must be consistent and acknowledged.

E. All asbestos debris shall be transported in covered, sealed vans, boxes, or dumpsters that are physically isolated from the driver by an airtight barrier. All vehicles must be properly licensed to meet DOT requirements.

F. Any vehicles used to store or transport ACM will either be removed from the property at night, or shall be securely locked and posted to prevent disturbance.

G. Any incident and/or accident that may result in spilling, exposure or environmental release of asbestos waste outside the work area, on and off the property, and all related issues shall be the sole responsibility of the Contractor.

3.12 PROJECT RESTORATION

A project walk-through shall be conducted, by the Owner or Owner's Consultant (upon the Owners request), after the removal portion of the project to identify areas or equipment damaged during the work. If the Owner determines that the damage is caused by acts or omissions of the Contractor, a punch list shall be developed. The Contractor shall be responsible for repair or replacement, or at the discretion of the Owner, payment for the work of another Contractor to complete the punch list. A second walk through shall be conducted after completion of punch list items.

END OF SECTION

SECTION 020850 CERTIFICATE OF WORKER'S ACKNOWLEDGEMENT

CERTIFICATE OF WORKER'S ACKNOWLEDGMENT

PROJECT NAME_____DATE_____
PROJECT ADDRESS_____
CONTRACTOR'S NAME_____

WORKING WITH ASBESTOS CAN BE DANGEROUS. INHALING ASBESTOS FIBERS HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.
Your employer's contract with the Owner for the above project requires that: You be supplied with the proper respirator and be trained in its use. You be trained in safe work practices and in the use of the equipment found on the job. You receive a medical examination. These things are to have been done at no cost to you.

RESPIRATORY PROTECTION: You must have been trained in the proper use of respirators, and informed of the type respirator to be used on the above referenced project. You must be given a copy of the written respiratory protection manual issued by your employer. You must be equipped at no cost with the respirator to be used on the above project.

TRAINING COURSE: You must have been trained in the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and area protective measures. The topics covered in the course must have included the following:

- Physical characteristics of asbestos
- Health hazards associated with asbestos
- Respiratory protection
- Use of protective equipment
- Pressure Differential Systems
- Work practices including hands on or on-job training
- Personal decontamination procedures
- Air monitoring, personal and area

MEDICAL EXAMINATION: You must have had a medical examination within the past 12 months at no cost to you. This examination must have included: health history, pulmonary function tests and may have included an evaluation of a chest x-ray.
By signing this document, you are acknowledging only that the Owner of the building you are about to work in has advised you of your obligation to training and protection relative to your employer, the Contractor.

Signature_____

Printed
Name_____Witness_____

Limited Asbestos Inspection Report
Roof Replacement

For

Sprague Elementary School

1443 Thomaston Avenue
Waterbury, CT 06704

PREPARED FOR:

Waterbury Public Schools
236 Grand Street
Waterbury CT, 06702

PREPARED BY:

FSS
Facility Support Services

121 North Plains Industrial Rd; Unit F
Wallingford, CT 06492
Phone (203) 288-1281

June 9, 2023

FSS Project #16023

SIGNATURES OF REPORT AUTHORS

The employees of Facility Support Services, LLC whose names appear below prepared this report. Requests for information on the content of this document should be directed to these individuals.



Michael DiFabio
CT DPH Asbestos Inspector (#000340)

I. PROJECT NARRATIVE

Facility Support Services, LLC (FSS) was contracted to perform a limited asbestos inspection at Sprague Elementary School, located at 1443 Thomaston Ave in Waterbury, Connecticut. The inspection took place on June 1st and 2nd, 2023, with the purpose of identifying the presence of asbestos in suspect materials prior to future replacement of specific sections of the building's roof. Roof sections included in this project and inspection include the following homogenous groups:

Homogenous Roof Sections -
Group #1: F, H, J, K, L, M
Group #2: B, B-1, C, D, E, G
Group #3: A
Note: Roof section "I" is not listed in the reference drawings

Please see the attached drawings (page A-1) provided by Silver Petrucelli & Associates to reference roof section identification.

The asbestos inspection was performed following the Environmental Protection Agency (EPA), National Emissions Standard for Hazardous Air Pollutants (NESHAP) regulations for building renovations and demolition, 40 CFR Part 61, Amended 11/20/1990. In accordance with contract terms, non-destructive sampling techniques were utilized, and inaccessible materials were not included in this inspection (sub-slab, sub-frame, wall chases, etc.). Should these inaccessible areas be subject to renovations and suspect materials are discovered, sampling and analysis must be conducted to confirm asbestos content.

Between June 1st and 2nd, 2023 a total of thirty-four (34) bulk suspect asbestos samples were collected. The materials identified and sampled from the building are detailed in the following list.

- Roof "E" (6/1/23)
  - Top Layer Rolled Roofing
  - Base Layer Tar (beneath foam, on concrete deck)
  - Rolled Roof Seam Tar
  - Light Gray Unit/Edge Flashing Tar (Sealant)
  - Unit/Edge Flashing "Built-up" Tar
  - Unit/Edge Flashing – Brown w/ White Specks Insulative Material
  - Old Tar on Roof Vent
- Roof "H" (6/2/23)
  - Top Layer Roof Membrane (below roof field stone)
  - Brown Fibrous Layer (below top membrane)
  - Base Layer Roof/Tar (below foam on concrete deck)
  - Unit/Edge Flashing Material
  - Unit/Edge Flashing Tar (New)
  - Unit/Edge Flashing Tar (Original/Older)
- Roof "F" (6/2/23)
  - Original White/Tan Drip Edge/Copper Flashing Caulk
- Roof "G" (6/2/23)
  - Newer Light Gray Drip Edge/Copper Flashing Caulk

Note: Samples collected during this inspection represent the aforementioned homogenous "groups" associated with this roof replacement project.

II. SUMMARY OF RESULTS

Samples of building materials collected by FSS were analyzed by EMSL Analytical, Inc., for EPA method 600/R-93/116. This is currently the approved EPA test method, which uses Polarized Light Microscopy (PLM) that uses dispersion staining. EMSL Analytical, Inc. is an accredited asbestos laboratory (NVLAP #200700-0) and is a State of Connecticut approved public health laboratory for asbestos analysis.

The Following Asbestos Containing Materials Were Identified During the Inspection

- Old Tar on Roof Vent – (Specifically on Roof "E")
- Original White/Tan Drip Edge/Copper Flashing Caulk

Laboratory results have revealed that these tested materials are considered asbestos containing materials according to CT DPH Regulations (i.e., contains more than 1% asbestos).

See Section V for a copy of the laboratory analytical reports for the samples collected.

III. CONCLUSIONS

The samples of the roofing, unit/edge flashing material, various tars associated with flashings and/or units were identified as non-asbestos containing. These materials can be removed and disposed as general construction debris.

The tar coating on the roof vent (located on Roof "E") and original White/Tan caulking associated with drip edges and/or copper flashing materials contain asbestos and are considered "Asbestos Containing Materials" by EPA definition ($\geq$ 1% asbestos). Removal and disposal of these materials should be performed by a CT DPH license asbestos abatement contractor or roofing contractor certified and properly trained to conduct this work in the State of Connecticut.

Roof Section "A" was not sampled during this inspection. Sampling had been completed prior to its replacement in 2018 and existing roof materials were removed prior to the new installation. FSS did not compromise the integrity of the relatively newly installed roof section.

FSS made reasonable effort to locate and identify all suspect asbestos containing materials that are part of this project. Any material discovered and may be impacted during project activities, which have not been included in this survey or previously sampled, must be presumed to contain asbestos until such time that bulk samples can be collected and analyzed for asbestos content.

IV. LABORATORY ANALYTICAL RESULTS

EMSL Analytical, Inc.

165 Gracey Avenue Meriden, CT 06451

Tel/Fax: (203) 284-5948 / (203) 284-5978

http://www.EMSL.com / meridenlab@emsl.com

EMSL Order: 242302773
Customer ID: FSS93
Customer PO:
Project ID:

Attention: Michael DiFabio
Facility Support Services, LLC
121 North Plains Industrial Road, Unit F
Wallingford, CT 06492

Project: SPRAGUE/16023

Phone: (203) 288-1281
Fax: (203) 248-4409
Received Date: 06/02/2023 1:15 PM
Analysis Date: 06/09/2023
Collected Date:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
160230601-1A *242302773-0001*	Roof E - Top Layer Wrap Rolled Roofing	Gray/Black Fibrous Homogeneous	20% Glass	5% Quartz 75% Non-fibrous (Other)	None Detected
160230601-1B *242302773-0002*	Roof E - Top Layer Wrap Rolled Roofing	White/Black Fibrous Homogeneous	5% Synthetic 15% Glass	5% Quartz 75% Non-fibrous (Other)	None Detected
160230601-2A *242302773-0003*	Roof E - Base Layer Tar - Beneath Foam on Concrete Deck	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
160230601-2B *242302773-0004*	Roof E - Base Layer Tar - Beneath Foam on Concrete Deck	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
160230601-3A *242302773-0005*	Roof E - Rolled Roof Seam Tar	Gray/Black Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
160230601-3B *242302773-0006*	Roof E - Rolled Roof Seam Tar	Black Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
160230601-4A-Light Grey Unit *242302773-0007*	Roof E - Light Gray Unit + Flashing Tar (sealant)	Silver Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
160230601-4A-Flashing *242302773-0007A*	Roof E - Light Gray Unit + Flashing Tar (sealant)	Black Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
160230601-4B-Light Grey Unit *242302773-0008*	Roof E - Light Gray Unit + Flashing Tar (sealant)	Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
160230601-4B-Flashing *242302773-0008A*	Roof E - Light Gray Unit + Flashing Tar (sealant)	Black/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
160230601-5A *242302773-0009*	Roof E - Unit Flashing/Edge Flashing, Built up Tar	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
160230601-5B *242302773-0010*	Roof E - Unit Flashing/Edge Flashing, Built up Tar	Black Fibrous Homogeneous	45% Cellulose	55% Non-fibrous (Other)	None Detected
160230601-6A *242302773-0011*	Roof E - Unit Flashing/Edge Flashing Brown w/ White Specks Insulative Material	Brown/Gray Fibrous Homogeneous	55% Cellulose	5% Perlite 40% Non-fibrous (Other)	None Detected
160230601-6B *242302773-0012*	Roof E - Unit Flashing/Edge Flashing Brown w/ White Specks Insulative Material	Brown Fibrous Homogeneous	70% Cellulose	5% Perlite 25% Non-fibrous (Other)	None Detected

Initial report from: 06/09/2023 13:04:41

EMSL Analytical, Inc.
165 Gracey Avenue Meriden, CT 06451
Tel/Fax: (203) 284-5948 / (203) 284-5978
http://www.EMSL.com / meridenlab@emsl.com

EMSL Order: 242302773
Customer ID: FSS93
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
160230601-7A *242302773-0013*	Roof E - Old Tar on Roof Vent	Black Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
160230601-7B *242302773-0014*	Roof E - Old Tar on Roof Vent	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
160230601-8A *242302773-0015*	Roof H - Top Layer Roof Membrane (Below Field Stone)	Black Fibrous Homogeneous	5% Glass	3% Quartz 92% Non-fibrous (Other)	None Detected
160230601-8B *242302773-0016*	Roof H - Top Layer Roof Membrane (Below Field Stone)	Black Fibrous Homogeneous	15% Glass	5% Quartz 80% Non-fibrous (Other)	None Detected
160230601-9A *242302773-0017*	Roof H - Brown Fibrous Layer Below Top Membrane	Brown/Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
160230601-9B *242302773-0018*	Roof H - Brown Fibrous Layer Below Top Membrane	Brown Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
160230601-10A-Roofing *242302773-0019*	Roof H - Base Layer Roof + Tar Below Foam on Concrete	Black Fibrous Homogeneous	15% Glass	5% Quartz 80% Non-fibrous (Other)	None Detected
160230601-10A-Tar *242302773-0019A*	Roof H - Base Layer Roof + Tar Below Foam on Concrete	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
160230601-10B-Roofing *242302773-0020*	Roof H - Base Layer Roof + Tar Below Foam on Concrete	Black Fibrous Homogeneous	15% Glass	5% Quartz 80% Non-fibrous (Other)	None Detected
160230601-10B-Tar *242302773-0020A*	Roof H - Base Layer Roof + Tar Below Foam on Concrete	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
160230601-11A *242302773-0021*	Roof H - Unit/Edge Flashing Material	Black Fibrous Homogeneous	15% Cellulose	3% Quartz 82% Non-fibrous (Other)	None Detected
160230601-11B *242302773-0022*	Roof H - Unit/Edge Flashing Material	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
160230601-12A *242302773-0023*	Roof H - Unit/Edge Flashing Tar	Black Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
160230601-12B *242302773-0024*	Roof H - Unit/Edge Flashing Tar	Black Non-Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
160230601-13A *242302773-0025*	Roof H - Unit/Edge Flashing Tar				Not Submitted
160230601-13B *242302773-0026*	Roof H - Unit/Edge Flashing Tar				Not Submitted
160230601-14A *242302773-0027*	Roof F - Original White/Tan Drip Edge/Copper Flashing Caulk	Gray/Tan Non-Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
160230601-14B *242302773-0028*	Roof F - Original White/Tan Drip Edge/Copper Flashing Caulk	Gray/Tan Non-Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile

Initial report from: 06/09/2023 13:04:41

EMSL Analytical, Inc.

165 Gracey Avenue Meriden, CT 06451

Tel/Fax: (203) 284-5948 / (203) 284-5978

http://www.EMSL.com / meridenlab@emsl.com

EMSL Order:	242302773
Customer ID:	FSS93
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
160230601-15A *242302773-0029*	Roof G - Newer Light Gray Drip Edge/Copper Flashing Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
160230601-15B *242302773-0030*	Roof G - Newer Light Gray Drip Edge/Copper Flashing Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Hailey Rangel (16)

Sara Poppa (16)

Danny Sandhu, Asbestos Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 “Interim Method”) but augmented with procedures outlined in the 1993 (”final”) version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Meriden, CT NVLAP Lab Code 200700-0,

Initial report from: 06/09/2023 13:04:41

OrderID: 242302773

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only

242302773

EMSL Analytical, Inc.
165 Gracey Ave
Meriden, CT 06451
PHONE: (203) 284-5948
EMAIL: MeridenLab@emsl.com

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

Customer Information		Billing Information	
Customer ID:		Billing ID:	
Company Name:	Facility Support Services, LLC.	Company Name:	Facility Support Services, LLC.
Contact Name:	Michael DiFabio	Billing Contact:	Michele Viarengo
Street Address:	121 North Plains Industrial Road; Unit F	Street Address:	121 North Plains Industrial Road; Unit F
City, State, Zip:	Wallingford CT 0649 Country: US	City, State, Zip:	Wallingford CT 06492 Country: US
Phone:	2032881281	Phone:	203-288-1281
Email(s) for Report:	mdifabio@fssteam.com	Email(s) for Invoice:	

Project Information

Project Name/No: Sprague / 16023 — Purchase Order:

EMSL LIMS Project ID: (If applicable, EMSL will provide) — US State where samples collected: CT — State of Connecticut (CT) must select project location: ☐ Commercial (Taxable) ☐ Residential (Non-Taxable)

Sampled By Name: Michael DiFabio — Sampled By Signature: — No. of Samples in Shipment:

Turn-Around-Time (TAT)

☐ 3 Hour ☐ 4-4.5 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☒ 1 Week ☐ 2 Week

TEM Air 3-6 Hour, please call ahead to schedule. 32 Hour TAT available for select tests only; samples must be submitted by 11:30 am.

Test Selection

PCM Air
- ☐ NIOSH 7400
- ☐ NIOSH 7400 w/ 8hr. TWA

PLM - Bulk (reporting limit)
- ☒ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)
- ☐ POINT COUNT
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- POINT COUNT w/ GRAVIMETRIC
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- ☐ NIOSH 9002 (<1%)
- ☐ NYS 198.1 (Friable - NY)
- ☐ NYS 198.6 NOB (Non-Friable - NY)
- ☐ NYS 198.8 (Vermiculite SM-V)

TEM - Air
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312*

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (Non-Friable-NY)
- ☐ TEM EPA 600/R-93/116 w Milling Prep (0.1%)

Other Test (please specify)

TEM - Settled Dust
- ☐ Microvac - ASTM D5755
- ☐ Wipe - ASTM D6480
- ☐ Qualitative via Filtration Prep
- ☐ Qualitative via Drop Mount Prep

Soil - Rock - Vermiculite (reporting limit)*
- ☐ PLM EPA 600/R-93/116 with milling prep (<0.25%)
- ☐ PLM EPA 600/R-93/116 with milling prep (<0.1%)
- ☐ TEM EPA 600/R-93/116 with milling prep (<0.1%)
- ☐ TEM Qualitative via Filtration Prep
- ☐ TEM Qualitative via Drop Mount Prep

*Please call with your project-specific requirements.

☐ Positive Stop - Clearly Identified Homogeneous Areas (HA) — Filter Pore Size (Air Samples) ☐ 0.8um ☐ 0.45um

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
	See Attached		

RECEIVED JUN 02 2023 By 13:15

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Method of Shipment: Drop off		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time: 6/2/2023 13:15	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-05 Asbestos R15 4/23/2021

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

OrderID: 242302773

FACILITY SUPPORT SERVICES, LLC

Asbestos Sampling Log

CLIENT: Waterbury Board of Ed DATE: 6/1/2023 / 6/2/2023

LOCATION: Sprague Elementary SAMPLED BY: FSS

SAMPLE ID	LOCATION	DESCRIPTION
160230601-01A	Roof E	Top layer Gray Rolled Roofing
1 B		↓
02A		Base layer Tar - Beneath Foam on Concrete Deck
B		↓
03A		Rolled Roof Seam Tar
B		↓
04A		Light Gray Unit + Flashing Tar (Sealant)
B		↓
05A		Unit Flashing / Edge Flashing, Built up Tar
B		↓
06A		Unit Flashing / Edge Flashing Brown w/ White Specks In Solative Material
B		↓
07A		Old Tar on Roof Vent
B	↓	↓
08A	Roof H	Top layer Roof Membrane (Below Field Stone)
B		↓
09A		Brown Fibrous Layer Below Top Membrane
B		↓
10A		Base layer Roof + Tar Below Foam on Concrete.
B	↓	↓

RECEIVED
JUN 02 2023
By

2 of 3

2685 STATE STREET • HAMDEN, CT 06517
PH: 203-288-1281 • FAX: 203-248-4409
Website: www.fssteam.com

OrderID: 242302773

FACILITY SUPPORT SERVICES, LLC

Asbestos Sampling Log

CLIENT: Waterbury Board of Ed DATE: 6/2/2023

LOCATION: Sprague Elementary SAMPLED BY: M. DiFabio

SAMPLE ID	LOCATION	DESCRIPTION
160230601-11A	Roof H	Unit/Edge Flashing Material
B	↓	↓
12A		Unit/Edge Flashing Tar
B		↓
13A		↓
B	↓	↓
14A	Roof F	original White/Tan Drip Edge/Copper Flashing Caulk
B	↓	↓
15A	Roof G	Newer Light Gray Drip Edge/Copper Flashing Caulk
B	↓	↓

RECEIVED
JUN 02 2023
13:15

3 of 3

2685 STATE STREET • HAMDEN, CT 06517
PH: 203-288-1281 • FAX: 203-248-4409
Website: www.fssteam.com

V. LICENSURE

1000462 SP 0564 -C01-P00464-I

MICHAEL V DIFABIO
[redacted]

Dear MICHAEL V DIFABIO,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

MANISHA JUTHANI, MD, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

1000462-0000466-0000001 of 0000001-C01-a1d00101-0564-00464

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

MICHAEL V DIFABIO

CERTIFICATE NO.
000340

CURRENT THROUGH
12/31/23

VALIDATION NO.
03-009736

SIGNATURE COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
MICHAEL V DIFABIO

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-009736	000340	12/31/23

PROFESSION
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SIGNATURE COMMISSIONER

INSTRUCTIONS:

1. Detach and sign each of the cards on this form
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
MICHAEL V DIFABIO

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-009736	000340	12/31/23

PROFESSION
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SIGNATURE COMMISSIONER

VI. DRAWINGS



FIGURE 1	PROJECT NO. 18623	SCALE: NTS	DATE: 16JUNE 2023	PHOTO REFERENCE: Google Maps 2023	ABATEMENT AREA SKETCH	FACILITY SUPPORT SERVICES, LLC ENVIRONMENTAL & SAFETY CONSULTING	PROJECT NO. 18623
					SPRAGUE ELEMENTARY SCHOOL 1443 THOMASTON AVENUE WATERBURY CT, 06704	121 NO. PLAINS INDUSTRIAL RD. UNIT F WALLINGFORD, CT 06492 (203) 288-1281 WWW.FSSTEAM.COM	FIGURE 1

VII. PHOTOGRAPHS



Sample core from Roof “E” - Representative of homogenous Group #2



Homogenous Group #2 Unit/Edge Flashing and Sealing tar



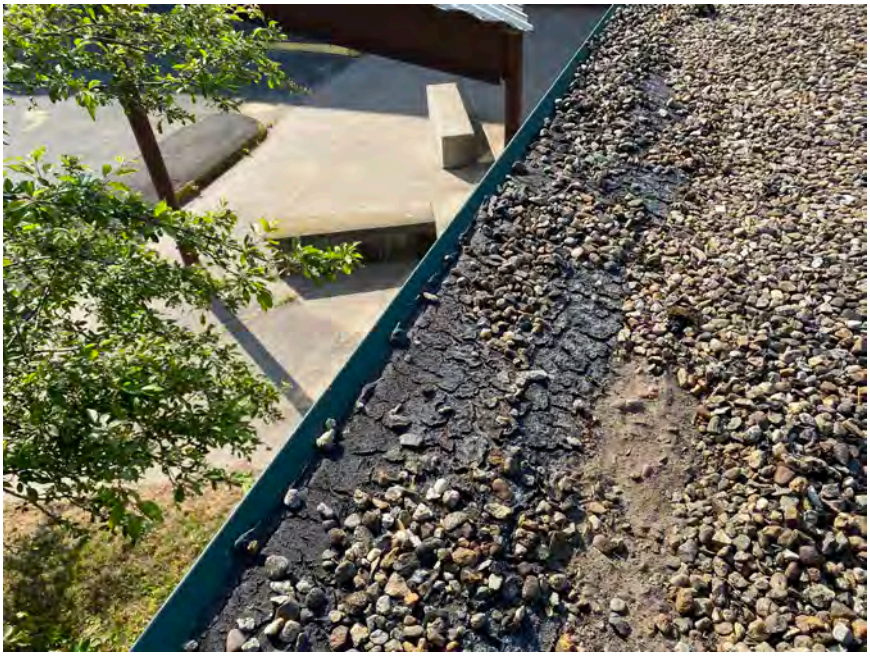
Roof vent with ACM tar coating – Roof “E”



Sample core from Roof “H” -Representative of homogenous Group #1



Edge/Unit flashing and tar on Roof “H/F” – Representative of homogenous Group #1



Edge Flashing of Roof “H” - Representative of homogenous Group #1



White/Tan Caulking (Asbestos containing) – Photo taken on top of Roof “F”

SECTION 035113 - CEMENTITIOUS WOOD FIBER AND GYPSUM DECKS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Pourable gypsum deck system for existing roof deck repairs.
2. Monolithic cementitious wood-fiber units.
3. Subpurlins and grout.

B. Related Requirements:

1. Section 012100 “Allowances” for Work of this Section included in allowances.
2. Section 012200 “Unit Prices” for Work of this Section included in unit prices.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated with the minimum as follows for gypsum:

1. Compressive strength.
2. Oven dry density.
3. Coefficient of heat transmission.

B. Shop Drawings: Include details at supports, reinforcement at openings, and attachment to other work.

C. Samples: Show texture, finish, and edge and end configurations of monolithic cementitious wood-fiber units, 12 inches long by width of unit.

1.4 INFORMATIONAL SUBMITTALS

A. Welding certificates.

B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency.

C. Evaluation Reports: For cementitious wood-fiber deck, from ICC-ES.

1.5 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1, "Structural Welding Code - Steel."

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver all materials to the building site in original unopened, undamaged packages or containers, or approved bulk handling equipment, with manufacturer's brand name and contents clearly identified.

B. Protect materials from moisture during shipment and after delivery.

C. Store materials on elevated platforms at Project site in a dry, well-ventilated, covered space and stack according to manufacturer's written recommendations.

D. Handle materials to prevent chipping, breaking, cracking, staining, soiling, warping, or other physical damage. Discard damaged units at time of installation.

1.7 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit work to be performed according to manufacturers' written instructions and warranty requirements.

B. Protect materials from moisture during installation and while exposed to the weather until permanently covered with subsequent construction.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Flame-Spread Index: 25 or less.
2. Smoke-Developed Index: 50 or less.

2.2 MONOLITHIC CEMENTITIOUS WOOD-FIBER UNITS

A. Concealed-Tee Monolithic Plank: Manufacturer's standard cementitious wood-fiber units, 3 inches thick but to match existing, with edges kerfed, back rabbeted, and beveled.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

a. Armstrong Building Solutions.; **Tectum I**
b. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Size: Manufacturer's standard width; length to span a minimum of two (2) support spacings.
3. End Configuration: Square.
4. Finish: Manufacturer's standard natural finish.

2.3 SUBPURLINS AND GROUT

A. Bulb-Tee Subpurlins: Hot-rolled steel bulb tees, complying with ASTM A 499, of length required to span three (3) support spacings; shop painted with metal primer.

B. Gypsum Concrete Grout: Factory-packaged, gypsum concrete grout formulation recommended by cementitious wood-fiber unit manufacturer with a minimum compressive strength of 500 psi.

2.4 MATERIALS

A. Gypsum Repair Material: Pourable gypsum deck repair material to match the profile and strength of the existing deck. This material will include reinforcement to match existing, tying the reinforcement into existing reinforcement for a contiguous slab finish. If the form is not in good condition, a form board to match existing shall be used over which the reinforced gypsum roof repair shall be installed.

B. Aggregate: ASTM C 332, Group I.

C. Water: Water shall be clean and free from injurious amounts of acids, alkali, organic matter, or other deleterious substances.

D. Grout: Premixed gypsum concrete such as **Tectum grout**, **Pyrofill**, **Structolite** or **MetroMix** or as recommended by the roof deck manufacturer.

2.5 ACCESSORIES

A. Screws: Manufacturer's recommended, corrosion-resistant screw fasteners and washers, self-drilling, self-tapping, of length required for deck and structural framing indicated.

B. Nails: Manufacturer's recommended corrosion-resistant nails of size and length required for deck and structural framing indicated.

C. Adhesive: Manufacturer's recommended construction adhesive complying with APA AFG-01.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine structural support framing for compliance with requirements, installation tolerances, and other conditions affecting performance of the Work.

B. Verify that existing roof surface is clear and ready for work of this Section.

C. Do not remove sections of existing roofing membrane that is ponded or on which water is present, as this water may infiltrate into the roof, requiring remedial treatment that will affect the roofing procedures and schedule.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Sweep roof surface clean of loose matter. Remove loose refuse and dispose offsite.

B. Control dust, noise, and debris to the satisfaction of the Owner.

C. Remove all ponded and standing water areas adjacent to roof project areas before commencing roof removal operations.

3.3 CEMENTITIOUS WOOD FIBER DECK INSTALLATION

A. Comply with manufacturer's written instructions for installing cementitious wood-fiber deck.

1. Install fastenings according to manufacturer's written instructions unless otherwise indicated.

B. Deck Interruptions: Provide barrier seals or blocking at overhangs to form wind seals and at partitions and walls to form sound seals unless otherwise indicated.

C. Concealed-Tee Plank Roof Deck: Install planks progressively with long dimension perpendicular to supports and with end joints in alternate rows, staggered and centered over supports unless otherwise indicated. Install flange of bulb tee into kerfed edge and tightly butt adjoining plank to engage other flange. Tightly butt square end joints.

1. Cut panels to provide starter units.
2. Continuously support plank edges and ends at perimeter of building and at openings in deck.
3. Mechanically fasten planks to supports and perimeter members.
4. Fill void with gypsum concrete grout where edge joints meet subpurlins. Strike grout flush with top of plank and feather uneven top surfaces to a plane.

3.4 GYPSUM DECK MATERIAL REMOVAL AND REPLACEMENT

A. Deck Examination

1. Evaluate existing gypsum roof deck surfaces and remove deteriorated existing gypsum deck surfaces in accordance with the following criteria:

a. Upon removal of existing roof membranes and slip sheets (if any), the existing gypsum roof deck should be firm and dry. If this is the case, roofing operations can proceed as specified elsewhere in the construction documents.
b. If the gypsum roof deck is saturated, viscous, pliable, wet to the touch or in any way exhibiting distress, the contractor shall cordon off the wet or distressed area, permitting the roof deck to dry, either under ambient conditions or using dryers prescribed by reputable gypsum roofing system manufacturers.

1) The drying process may require tenting over the area or other appropriate protective measures to enhance the drying process. This procedure may require water damming around the drying areas to prohibit storm water from infiltrating the area, which will be installed and monitored as required by the Contractor to expedite the drying process.
2) If the existing gypsum material drys to a firm, dry finish without spalling, fracturing or delamination, to a depth of one-half (½) of the deck thickness measured from above, the deck is suitable for re-roofing, which should proceed with caution as the core material cures.
3) If the existing gypsum roof deck materials spalls, delaminates or fractures in large pieces, the structural integrity of the area is compromised, and the wet and delaminated section must be removed and replaced with pourable gypsum material as specified.

B. Deck Removal

1. Should the examination procedures determine that the area is no longer structurally viable, the Contractor shall remove the deteriorated sections in accordance with the following procedure:

    a. Sawcut and remove the deteriorated sections completely between the parallel supporting bulb tees or subpurlins. Sawcutting will be done with a radial saw with a steel cutting blade to mitigate damage to the adjacent sound and reinforced gypsum roof deck surfaces.
    b. Protect the ceiling, floor, and furniture surfaces below the removed roof section, replacing damaged interior finishes and equipment as required to restore the space to its original condition.

2. Remove all loose and bulky gypsum material from the bulb tees, providing a suitable bearing surface for the pourable gypsum material.
3. Touch up rusted areas of the subpurlins, bulb tees or metal joist in contact with the new gypsum material with red oxide primer after wire brushing loose scale and rust from the rusted accessory scheduled to remain.

C. Deck Replacement

1. Form Board Surface Preparation: Clean surfaces to receive gypsum of dirt, debris and other foreign materials that would affect bonding. The form board shall be free of standing water, snow, and ice.

    a. Application of New Form Boards and Gypsum Deck: Apply form boards, gypsum slurry and related materials in accordance with respective specifications and manufacturer's instructions, except as modified herein.

2. Confirm that tees and subpurlins have been accurately positioned within 1/16"± of the manufacturer's recommended spacing and are securely fastened.
3. Space form boards evenly between tees. Square cut ends shall fall over supporting purlin members and be driven tightly together.
4. Gypsum Mixing: Mix gypsum materials mechanically to produce a uniform distribution and to meet manufacturer's instructions and design requirements. Place fill the void around the bulb tee completely level with the top of the adjacent surfaces. Excess material shall be scraped off leaving a finished joint flush with the top surface of the roof deck.
5. Curing: Minimize traffic on the surface during the curing period.

3.5 CLEANING AND PROTECTION

A. Provide temporary protective sheeting over uncovered deck surfaces.

B. Turn sheeting up and over parapets and curbing. Retain sheeting in position with weights.

C. Provide for surface drainage from sheeting to existing drainage facilities.

D. Protect top surfaces of deck from damage caused by construction operations.

E. Protect exposed bottom surfaces of deck from soiling and damage during handling and construction.

F. Clean exposed bottom surfaces of completed deck and touch up minor damage to surfaces as approved by Architect.

G. Provide final protection and maintain conditions in a manner acceptable to manufacturer and Installer that ensures that deck is without damage or deterioration at time of Substantial Completion.

H. Remove and replace deteriorated and damaged deck units.

END OF SECTION 035113

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Rooftop equipment bases and support curbs.
2. Wood blocking and nailers.

1.3 DEFINITIONS

A. Boards or Strips: Lumber of less than 2 inches nominal size in least dimension.

B. Lumber grading agencies, and the abbreviations used to reference them, include the following:

1. NeLMA: Northeastern Lumber Manufacturers' Association.
2. NLGA: National Lumber Grades Authority.
3. WCLIB: West Coast Lumber Inspection Bureau.
4. WWPA: Western Wood Products Association.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
2. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

1.5 INFORMATIONAL SUBMITTALS

A. Evaluation Reports: For the following, from ICC-ES:

1. Wood-preservative-treated wood.
2. Power-driven fasteners.
3. Post-installed anchors.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Stack wood products flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.

B. Maximum Moisture Content of Lumber: Fifteen percent (15%) unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED LUMBER

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with the ground, Use Category UC3b for exterior construction not in contact with the ground, and Use Category UC4a for items in contact with the ground.

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

B. Kiln-dry lumber after treatment to a maximum moisture content of fifteen percent (15%). Do not use material that is warped or that does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

D. Application: Treat items indicated on Drawings, and the following:

1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
2. Wood sills, sleepers, blocking, furring, stripping and similar concealed members in contact with masonry or concrete.

2.3 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.

B. Dimension Lumber Items: Standard, Stud, or No. 3 grade lumber of any of the following species:

1. Hem-fir (north); NLGA.
2. Hem-fir; WCLIB or WWPA.
3. Spruce-pine-fir (south); NeLMA, WCLIB, or WWPA.

C. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.

D. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

2.4 FASTENERS

A. General: Fasteners shall be of size and type indicated and shall comply with requirements specified in this article for material and manufacture.

1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of Type 304 stainless-steel.

B. Nails, Brads, and Staples: ASTM F 1667.

C. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

D. Post-Installed Anchors: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01 or ICC-ES AC193 as appropriate for the substrate.

1. Material: Stainless-steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2.

2.5 MISCELLANEOUS MATERIALS

A. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, rubberized-asphalt compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.025-inch.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.

B. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry accurately to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.

C. Do not splice structural members between supports unless otherwise indicated.

D. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.

E. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

F. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

1. Use copper naphthenate for items not continuously protected from liquid water.

G. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.

H. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code (IBC).
2. ICC-ES evaluation report for fastener.

I. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

3.2 WOOD BLOCKING AND NAILER INSTALLATION

A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.

B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.

END OF SECTION 061000

SECTION 070150.19 - PREPARATION FOR REROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Full tear-off of roof system at areas indicated on Drawings.
2. Removal of flashings and counterflashings.

B. Related Requirements:

1. Section 011000 "Summary of Work" for use of the premises and phasing requirements.
2. Section 015000 "Temporary Facilities and Controls" for temporary construction and environmental-protection measures for reroofing preparation.

1.3 DEFINITIONS

A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.

B. Full Roof Tear-Off: Removal of existing roofing system down to existing roof deck.

1.4 PREINSTALLATION MEETINGS

A. Preliminary Roofing Conference: Before starting removal work, conduct conference at Project site.

1. Meet with Owner; Architect; Owner's insurer if applicable; testing and inspecting agency representative; roofing system manufacturer's representative; roofing Installer, including project manager, superintendent, and foreman; and installers whose work interfaces with or affects reroofing, including installers of roof deck, roof accessories, and roof-mounted equipment.
2. Review methods and procedures related to roofing tear-off, including, but not limited to, the following:

a. Reroofing preparation, including roofing system manufacturer's written instructions.
b. Temporary protection requirements for existing roofing system components that are to remain.
c. Existing roof drains and roof drainage during each stage of reroofing, and roof-drain plugging and plug removal.
d. Construction schedule and availability of materials, Installer's personnel, equipment, and facilities needed to avoid delays.
e. Existing roof deck conditions requiring notification of Architect.
f. Existing roof deck removal procedures and Owner notifications.
g. Condition and acceptance of existing roof deck and base flashing substrate for reuse.

h. Structural loading limitations of roof deck during reroofing.
i. Base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that affect reroofing.
j. HVAC shutdown and sealing of air intakes.
k. Shutdown of fire-suppression, -protection, and -alarm and -detection systems.
l. Asbestos removal and discovery of asbestos-containing materials.
m. Governing regulations and requirements for insurance and certificates if applicable.
n. Existing conditions that may require notification of Architect before proceeding.

B. Comply with additional requirements in Section 013100 “Project Management and Coordination”.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

1. Include certificate that Installer is licensed to perform asbestos abatement.

A. Field Test Reports:

1. Fastener pull-out test report.

B. Photographs: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces, that might be misconstrued as having been damaged by reroofing operations.

1. Submit before Work begins.

C. Landfill Records: Indicate receipt and acceptance of demolished roofing materials and hazardous wastes, such as asbestos-containing materials, by a landfill facility licensed to accept them.

1.7 CLOSEOUT SUBMITTALS

A. Certified statement from manufacturer for existing warranted roof system stating that existing roof warranty has not been affected by Work performed under this Section.

1.8 QUALITY ASSURANCE

A. Installer Qualifications: Licensed to perform asbestos abatement in the state or jurisdiction where Project is located.

B. Regulatory Requirements:

1. Comply with governing EPA notification regulations before beginning roofing removal.
2. Comply with hauling and disposal regulations of authorities having jurisdiction.

1.9 FIELD CONDITIONS

A. Existing Roofing System: Modified bitumen roofing and EPDM.

B. Owner will occupy portions of building adjacent to reroofing area.

1. Conduct reroofing so Owner's operations are not disrupted.
2. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.
3. Coordinate work activities daily with Owner so Owner has adequate advance notice to place protective dust and water-leakage covers over sensitive equipment and furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below work area.
4. Before working over structurally impaired areas of deck, notify Owner to evacuate occupants from below affected area.

a. Verify that occupants below work area have been evacuated before proceeding with work over impaired deck area.

C. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.

D. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.

E. Conditions existing at time of inspection for bidding are maintained by Owner as far as practical.

F. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.

1. Remove only as much roofing in one (1) day as can be made watertight in the same day.

G. Hazardous Materials: A report on the presence of hazardous materials is part of the contract documents. Examine report to become aware of locations where hazardous materials are present.

1. Hazardous material remediation is specified elsewhere in the Contract Documents.
2. Do not disturb hazardous materials or items suspected of containing hazardous materials except according to procedures specified elsewhere in the Contract Documents.
3. Coordinate reroofing preparation with hazardous material remediation to prevent water from entering existing roofing system or building.

1.10 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during reroofing, by methods and with materials so as not to void existing roofing system warranty.

1. Notify warrantor before proceeding with the Work.
2. Notify warrantor of existing roofing system on completion of reroofing, and obtain documentation verifying that existing roofing system has been inspected and warranty remains in effect.

a. Submit documentation at Project closeout.

PART 2 - PRODUCTS

2.1 REPLACEMENT MATERIALS

A. Tectum deck is specified in Section 035113 “Cementitious Wood Fiber Decks”.

B. Wood blocking, curbs, and nailers are specified in Section 061000 "Rough Carpentry."

2.2 AUXILIARY REROOFING MATERIALS

A. General: Use auxiliary reroofing preparation materials recommended by roofing system manufacturer for intended use and compatible with components of existing and new roofing system.

PART 3 - EXECUTION

3.1 PREPARATION

A. Seal or isolate windows that may be exposed to airborne substances created in removal of existing materials.

B. Shut off rooftop utilities and service piping before beginning the Work.

C. Test existing roof drains to verify that they are not blocked or restricted.

1. Immediately notify Architect of any blockages or restrictions.

D. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work.

1. Cover air-intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.

E. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.

F. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday.

1. Prevent debris from entering or blocking roof drains and conductors.

a. Use roof-drain plugs specifically designed for this purpose.
b. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.

2. If roof drains are temporarily blocked or unserviceable due to roofing system removal or partial installation of new roofing system, provide alternative drainage method to remove water and eliminate ponding.

a. Do not permit water to enter into or under existing roofing system components that are to remain.

3.2 ROOF TEAR-OFF

A. Notify Owner each day of extent of roof tear-off proposed for that day and obtain authorization to proceed.

B. Lower removed roofing materials to ground and onto lower roof levels, using dust-tight chutes or other acceptable means of removing materials from roof areas.

C. Remove loose aggregate from aggregate-surfaced, built-up bituminous roofing using a power broom.

D. Full Roof Tear-Off: Where indicated on Drawings, remove existing roofing and other roofing system components down to the existing roof deck.

1. Remove substrate board, vapor retarder, underlayment, roof insulation and cover board.
2. Remove base flashings and counter flashings.
3. Remove perimeter edge flashing and gravel stops.
4. Remove copings.
5. Remove flashings at pipes, curbs, mechanical equipment, and other penetrations.
6. Remove roof drains indicated on Drawings to be removed.
7. Remove wood blocking, curbs, and nailers.
8. Bitumen and felts that are firmly bonded to concrete decks are permitted to remain if felts are dry.

    a. Remove unadhered bitumen, unadhered felts, and wet felts.

9. Remove fasteners from deck.

3.3 DECK PREPARATION

A. Inspect deck after tear-off of roofing system.

B. If broken or loose fasteners that secure deck panels to one another or to structure are observed, or if deck appears or feels inadequately attached, immediately notify Architect.

1. Do not proceed with installation until directed by Architect.

C. If deck surface is unsuitable for receiving new roofing or if structural integrity of deck is suspect, immediately notify Architect.

1. Do not proceed with installation until directed by Architect.

D. Provide additional deck securement as recommended by manufacturer.

E. Replace decking as directed by Architect. Deck replacement will be paid for by adjusting the Contract Sum according to unit prices included in the Contract Documents.

3.4 BASE FLASHING REMOVAL

A. Remove existing base flashings.

1. Clean substrates of contaminants, such as asphalt, sheet materials, dirt, and debris.

B. Do not damage metal counterflashings that are to remain.

1. Replace metal counterflashings damaged during removal with counterflashings specified in Section 076200 "Sheet Metal Flashing and Trim."

C. When directed by Architect, replace wood blocking, curbs, and nailers to comply with Section 061000 "Rough Carpentry."

3.5 FASTENER PULL-OUT TESTING

A. Retain independent testing and inspecting agency to conduct fastener pull-out tests according to Chapter 16 of the International Building Code and submit test report to Architect and roofing manufacturer before installing new roofing system.

1. Obtain Architect's and roofing manufacturer's approval to proceed with specified fastening pattern.

a. Architect and roofing manufacturer may furnish revised fastening pattern commensurate with pull-out test results.

3.6 DISPOSAL

A. Collect demolished materials and place in containers.

1. Promptly dispose of demolished materials.
2. Do not allow demolished materials to accumulate on-site.
3. Storage or sale of demolished items or materials on-site is not permitted.

B. Transport and legally dispose of demolished materials off Owner's property.

END OF SECTION 070150.19

SECTION 075216 - STYRENE-BUTADIENE-STYRENE (SBS) MODIFIED BITUMINOUS MEMBRANE ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Styrene-butadiene-styrene (SBS) modified bituminous membrane roofing.
2. Vapor retarder.
3. Roof insulation.
4. Walkways.

B. Related Sections:

1. Section 012300 “Alternates” for work of this Section included in alternates.
2. Section 061000 "Rough Carpentry" for wood nailers, curbs, and blocking, and for wood-based, structural-use roof deck panels.
3. Section 076200 "Sheet Metal Flashing and Trim" for metal roof flashings and counterflashings.
4. Section 077100 "Roof Specialties" for premanufactured roof edge fasciae and gravel stops.
5. Section 077129 "Manufactured Roof Expansion Joints" for proprietary manufactured roof expansion-joint assemblies.
6. Section 079200 "Joint Sealants" for joint sealants, joint fillers, and joint preparation.
7. Section 221423 "Storm Drainage Piping Specialties" for roof drains.

1.3 DEFINITIONS

A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing Manual: Membrane Roof Systems" apply to Work of this Section.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Roofing Conference: Conduct conference at Project site. **Refer to Section 070150.19 “Preparation for Reroofing” for additional items.**

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: Include plans, sections, details, and attachments to other work, including the following:

1. Layout and thickness of insulation.
2. Base flashings and membrane terminations.
3. Flashing details at penetrations.

4. Tapered insulation, including slopes.
5. Roof plan showing orientation of steel roof deck and orientation of roof membrane, fastening spacings, and patterns for mechanically fastened roofing system.
6. Crickets, saddles, and tapered edge strips, including slopes.
7. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.

C. Samples: For the following products:

1. Sheet roofing materials, including roofing membrane base sheet, flashing backer sheet, membrane cap sheet and flashing sheet, of color specified.
2. Roof insulation.
3. Walkway pads or rolls, of color required.
4. Six (6) insulation fasteners of each type, length, and finish.

D. Wind Uplift Resistance Submittal: For roofing system indicating compliance with wind uplift performance requirements.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer, manufacturer, and testing agency.

B. Manufacturer Certificates:

1. Performance Requirement Certificate: Signed by roof membrane manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.

a. Submit evidence of complying with performance requirements.

2. Special Warranty Certificate: Signed by roof membrane manufacturer, certifying that all materials supplied under this Section are acceptable for special warranty.

C. Product Test Reports: For roof membrane and insulation, tests performed by a qualified testing agency, indicating compliance with specified requirements.

D. Evaluation Reports: For components of membrane roofing system, from ICC-ES.

E. Field quality-control reports.

F. Sample Warranties: For manufacturer’s special warranties.

1.7 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roofing system to include in maintenance manuals.

1.8 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer that is UL listed for roofing system identical to that used for this Project.

B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer.

1. Protect stored liquid material from direct sunlight.
2. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources.

1. Store in a dry location.
2. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

1.10 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.11 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.

1. Special warranty is fully inclusive of all membrane roofing, base flashings, roof insulation, fasteners, cover boards, roofing accessories, metal flashings, roof drainage fabrications, and other components of roofing system for an edge-to-edge warranty.
2. Warranty Period: Thirty (30) years, non-prorated, no-dollar-limit, from date of Substantial Completion.

B. Roofing Installer's Warranty: Signed by Installer, in which Installer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Two (2) years from date of Substantial Completion.

C. Provide self-adhesive emblems for each roof hatch, door, or access way, notifying the user of the roof condition, precautionary measures and other conditions of use or maintenance of the roofing membranes.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. CertainTeed Corp.
2. Elevate Building Products, a Holcim company
3. GAF Materials Corporation
4. Garland Company, Inc. (The)
5. Johns Manville, a Berkshire Hathaway company
6. Siplast, Inc.
7. Soprema US
8. Tremco Incorporated
9. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

B. Source Limitations: Obtain components for roofing system from roof membrane manufacturer or manufacturer approved by roof membrane manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing system and flashings shall remain watertight.

1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
2. Impact Resistance: Roofing system shall resist impact damage when tested according to ASTM D 3746 or ASTM D 4272, or the "Resistance to Foot Traffic Test" in FM Approvals 4470.

B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roof membrane manufacturer based on testing and field experience.

C. Roofing System Design: Tested by a qualified testing agency to resist the uplift requirements as indicated on the Drawings.

D. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class C; for application and roof slopes indicated; testing by a qualified testing agency.

1. Identify products with appropriate markings of applicable testing agency.

E. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated.

1. Identify products with appropriate markings of applicable testing agency.

2.3 ROOFING SHEET MATERIALS

A. Roofing Membrane Base Sheet: ASTM D 6163, Grade S, Type I or II, SBS-modified asphalt sheet (reinforced with glass fiber fabric); smooth surfaced; suitable for application method specified.

B. Granule-Surface Roofing Membrane Cap Sheet: ASTM D 6164, Grade G, Type I, SBS-modified asphalt sheet (reinforced with polyester fabric); granular surfaced; suitable for application method specified, and as follows:

1. Sheet Color: White
2. Granule Color: White.

2.4 BASE FLASHING SHEET MATERIALS

A. Backer Sheet: ASTM D 6163, Grade S, Type I or II, SBS-modified asphalt sheet (reinforced with glass fiber fabric) smooth surfaced; suitable for application method specified.

B. Granule-Surfaced Flashing Sheet: ASTM D 6164, Grade G, Type I, SBS-modified asphalt sheet (reinforced with polyester fabric) granular surfaced; suitable for application method specified, and as follows:

1. Sheet Color: White.
2. Granule Color: As selected by Architect and Owner from manufacturer's entire range, to match cap sheet.

2.5 ACCESSORY ROOFING MATERIALS

A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing membrane.

1. Adhesives and Sealants: Comply with VOC limits of authorities having jurisdiction.

B. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer.

C. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1-by-1/8-inch-thick; with anchors.

D. Cold-Applied Asphalt Adhesive: ASTM D 3019, Type III, roof membrane manufacturer's standard asphalt-based, one- or two-part, asbestos-free, cold-applied adhesive, specially formulated for compatibility and use with roofing membrane and base flashings.

E. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required by roofing system manufacturer for application.

F. Mastic Sealant: Polyisobutylene, plain or modified bitumen; nonhardening, nonmigrating, non-skinning, and nondrying.

G. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roofing components to substrate; tested by manufacturer for required pullout strength, and acceptable to roofing system manufacturer.

H. Roofing Granules: Ceramic-coated roofing granules, No. 11 screen size with one hundred percent (100%) passing No. 8 sieve and ninety-eight percent (98%) of mass retained on No. 40 sieve, color to match roofing membrane.

I. Miscellaneous Accessories: Provide those recommended by roofing system manufacturer.

J. Penetration Flashing: Two-part, liquid-applied flashing material that cures to a durable, elastomeric film. Flashing system consists of primer, flashing cement, and polyester scrim.

1. System must be compatible with roofing membrane system and be part of the warranty.

2.6 VAPOR RETARDER

A. Rubberized-Asphalt-Sheet Vapor Retarder, Self-Adhering: ASTM D 1970 polyethylene film laminated to layer of rubberized asphalt adhesive, minimum 40-mil total thickness; maximum permeance rating of 0.1 perm; cold applied, with slip-resisting surface and release paper backing. Provide primer when recommended by vapor-retarder manufacturer.

2.7 ROOF INSULATION

A. General: Preformed roof insulation boards manufactured or approved by roof membrane manufacturer.

B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 3, felt or glass-fiber mat facer on both major surfaces.

1. Compressive Strength: 25 psi.

C. Perlite Board Insulation: ASTM C 728, Type 1, rigid, mineral-aggregate thermal insulation board composed of expanded perlite, cellulosic fibers, binders, and waterproofing agents with top surface seal coated.

D. Tapered Insulation: Provide factory-tapered insulation boards.

1. Material: Match roof insulation.
2. Minimum Thickness: ¼-inch.
3. Slope:

a. Roof Field: ¼-inch per foot unless otherwise indicated on Drawings.
b. Saddles and Crickets: ½-inch per foot unless otherwise indicated on Drawings.

2.8 INSULATION ACCESSORIES AND COVER BOARD

A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with roofing.

B. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation to substrate, and acceptable to roofing system manufacturer.

C. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:

1. Modified asphaltic, asbestos-free, cold-applied adhesive.

D. Insulation Adhesive (Decks Exposed from Below): Two-component, polyurethane construction grade, low-rise expanding.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. OMG, Inc.; **OlyBond 500 Spot Shot**
b. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

E. Insulation Cant Strips: ASTM C 728, perlite insulation board.

F. Wood Nailer Strips: Comply with requirements in Section 061000 "Rough Carpentry."

G. Tapered Edge Strips: ASTM C 728, perlite insulation board.

H. Cover Board: ASTM C 1289, Type II, Class 4, Grade 2, polyisocyanurate board substrate with glass-fiber mat facer on both major surfaces.

2.9 WALKWAYS

A. Walkway Pads: Reinforced asphaltic composition pads with slip-resisting mineral-granule surface, manufactured as a traffic pad for foot traffic and acceptable to roofing system manufacturer, 3/8-inch-thick, minimum.

1. Pad Size: Manufacturer's standard.
2. Color: In contrasting color of roofing membrane.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work:

1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof-drain bodies are securely clamped in place.
2. Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
3. Verify that any damaged sections of cementitious wood-fiber decks have been repaired or replaced.
4. Verify that adjacent cementitious wood-fiber panels are vertically aligned to within 1/8-inch at top surface.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation in accordance with roofing system manufacturer's written instructions.

1. Remove sharp projections.

B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction.

1. Remove roof-drain plugs when no work is taking place or when rain is forecast.

C. Perform fastener-pullout tests according to roof system manufacturer's recommendations.

1. Submit test result within 24 hours of performing tests.

a. Include manufacturer's requirements for any revision to previously submitted fastener patterns required to achieve specified wind uplift requirements.

3.3 INSTALLATION, GENERAL

A. Install roofing system according to roofing system manufacturer's written instructions.

B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast.

1. Remove and discard temporary seals before beginning work on adjoining roofing.

C. Substrate-Joint Penetrations: Prevent roofing adhesives from penetrating substrate joints, entering building, or damaging roofing system components or adjacent building construction.

3.4 INSTALLATION OF VAPOR RETARDER

A. Self-Adhering-Sheet Vapor Retarder: Prime substrate if required by manufacturer. Install self-adhering-sheet vapor retarder over area to receive vapor retarder, side and end lapping each sheet a minimum of 3½ and 6 inches, respectively.

1. Extend vertically up parapet walls and projections to a minimum height equal to height of the insulation and cover board.
2. Seal laps by rolling.

B. Completely seal vapor retarder at terminations, obstructions, and penetrations to prevent air movement into roofing system.

3.5 INSULATION INSTALLATION

A. Coordinate installation of roofing system components, so insulation is not exposed to precipitation or left exposed at the end of the workday.

B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.

C. Nailer Strips: Mechanically fasten 4-inch nominal-width wood nailer strips of same thickness as insulation perpendicular to sloped roof deck at the following spacing:

1. 48 inches apart for roof slopes greater than 3 inches per 12 inches (3:12).

D. Insulation Cant Strips: Install and secure preformed 45-degree insulation cant strips at junctures of roofing membrane system with vertical surfaces or angle changes more than 45 degrees.

E. Install tapered insulation under area of roofing to conform to slopes indicated.

F. Install insulation boards with long joints in a continuous straight line with end joints staggered between rows, abutting edges, and ends between boards. Fill gaps exceeding ¼-inch with insulation.

1. Cut and fit insulation within ¼-inch of nailers, projections, and penetrations.

G. Install insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2.7 inches or more, install two (2) or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches in each direction.

1. Where installing composite and non-composite insulation in two (2) or more layers, install non-composite board insulation for bottom layer and intermediate layers, if applicable, and install composite board insulation for top layer.

H. Trim surface of insulation boards where necessary at roof drains so completed surface is flush and does not restrict flow of water.

I. Install tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.

J. Adhered Insulation: Install each layer of insulation and adhere to substrate as follows:

1. Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing, and maintaining insulation in place.

K. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints a minimum of 6 inches in each direction from joints of insulation below. Loosely butt cover boards together. Tape joints if required by roofing system manufacturer.

1. Set in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

3.6 ROOFING MEMBRANE INSTALLATION, GENERAL

A. Install roofing system according to roofing system manufacturer's written instructions and applicable recommendations in ARMA/NRCA's "Quality Control Guidelines for the Application of Polymer Modified Bitumen Roofing".

B. Start installation of roofing membrane in presence of roofing system manufacturer's technical personnel.

C. Where roof slope exceeds ¾-inch per 12 inches (1:18), install roofing membrane sheets parallel with slope.

1. Backnail roofing sheets to nailer strips according to roofing system manufacturer's written instructions.

D. Coordinate installation of roofing system so insulation and other components of the roofing system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is forecast.

1. Provide tie-offs at end of each day’s work to cover exposed roofing sheets and insulation with a course of coated felt set in roofing cement, with joints and edges sealed.
2. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system.
3. Remove and discard temporary seals before beginning work on adjoining roofing.

3.7 SBS-MODIFIED BITUMINOUS MEMBRANE INSTALLATION

A. Install modified bituminous roofing membrane base sheet and cap sheet according to roofing manufacturer's written instructions, starting at low point of roofing system. Extend roofing membrane sheets over and terminate beyond cants, installing in one (1) of the following ways:

1. Adhere to substrate in a uniform coating of cold-applied adhesive.

2. Unroll roofing membrane sheets and allow them to relax for minimum time period required by manufacturer.

B. Laps: Accurately align roofing membrane sheets, without stretching, and maintain uniform side and end laps. Stagger end laps. Completely bond and seal laps, leaving no voids.

1. Repair tears and voids in laps and lapped seams not completely sealed.

C. Install roofing sheets so side and end laps shed water.

3.8 FLASHING AND STRIPPING INSTALLATION

A. Install base flashing over cant strips and other sloped and vertical surfaces, at roof edges, and at penetrations through roof, and secure to substrates according to roofing system manufacturer's written instructions, and as follows:

1. Prime substrates with asphalt primer if required by roofing system manufacturer.
2. Backer Sheet Application:

a. Adhere backer sheet over roofing membrane at cants in cold-applied adhesive.

3. Flashing Sheet Application: Adhere flashing sheet to substrate in cold-applied adhesive at rate required by roofing system manufacturer.

B. Extend base flashing up walls or parapets a minimum of 8 inches above roofing membrane and 4 inches onto field of roofing membrane.

C. Mechanically fasten top of base flashing securely at terminations and perimeter of roofing.

1. Seal top termination of base flashing.

D. Penetration Flashing: Tape off area to be flashed. Prime protrusion with system approved primer. Apply system base coat. While tacky, embed system polyester scrim. Apply system topcoat. Remove masking tape.

E. Install roofing cap-sheet stripping where metal flanges and edgings are set on roofing according to roofing system manufacturer's written instructions.

F. Roof Drains: Set 30-by-30-inch 4-pound metal flashing in bed of asphaltic adhesive on completed roofing membrane.

1. Cover metal flashing with roofing cap-sheet stripping and extend a minimum of 6 inches beyond edge of metal flashing onto field of roofing membrane.
2. Clamp roofing membrane, metal flashing, and stripping into roof-drain clamping ring.
3. Install stripping according to roofing system manufacturer's written instructions.

3.9 WALKWAY INSTALLATION

A. Walkway Pads: Install walkway pads using units of size indicated or, if not indicated, of manufacturer's standard size according to walkway pad manufacturer's written instructions.

1. Adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

3.10 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified testing agency to inspect substrate conditions, surface preparation, membrane application, flashings, protection, and drainage components, and to furnish reports to Architect.

B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.

1. Notify Architect and Owner 48 hours in advance of date and time of inspection.

C. Roofing system will be considered defective if it does not pass tests and inspections.

1. Additional testing and inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements.

3.11 PROTECTING AND CLEANING

A. Protect roofing system from damage and wear during remainder of construction period.

1. When remaining construction does not affect or endanger roofing, inspect roofing system for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.

B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.

END OF SECTION 075216

SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Formed roof-drainage sheet metal fabrications.
2. Formed low-slope roof sheet metal fabrications.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wood nailers, curbs, and blocking.
2. Section 077200 "Roof Accessories" for equipment supports, roof hatches, vents, and other manufactured roof accessory units.

1.3 COORDINATION

A. Coordinate sheet metal flashing and trim layout and seams with sizes and locations of penetrations to be flashed, and joints and seams in adjacent materials.

B. Coordinate sheet metal flashing and trim installation with adjoining roofing and wall materials, joints, and seams to provide leak-proof, secure, and noncorrosive installation.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.

B. Shop Drawings: For sheet metal flashing and trim.

1. Include plans, elevations, sections, and attachment details.
2. Detail fabrication and installation layouts, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work.
3. Include identification of material, thickness, weight, and finish for each item and location in Project.
4. Include details for forming, including profiles, shapes, seams, and dimensions.
5. Include details for joining, supporting, and securing, including layout and spacing of fasteners, cleats, clips, and other attachments. Include pattern of seams.
6. Include details of termination points and assemblies.
7. Include details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction from fixed points.
8. Include details of roof-penetration flashing.
9. Include details of special conditions.
10. Include details of connections to adjoining work.

11. Detail formed flashing and trim at scale of not less than 3 inches per 12 inches (1:5).

C. Samples: For each type of sheet metal and accessory indicated with factory-applied finishes.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For fabricator.

B. Product Test Reports: For each product, for tests performed by a qualified testing agency.

C. Sample Warranty: For special warranty.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For sheet metal flashing and trim, and its accessories, to include in maintenance manuals.

1.7 QUALITY ASSURANCE

A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.

B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal flashing and trim installation.

1.9 WARRANTY

A. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.

1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:

a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: Twenty (20) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to

defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.

B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.

C. Wind Design Standard: Manufacture and install roof edge flashings tested according to Chapter 16 of the International Building Code and capable of resisting the following design pressure:

1. Design Pressure: As indicated on Drawings.

D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

2.2 SHEET METALS

A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.

B. Aluminum Sheet: ASTM B 209, alloy as standard with manufacturer for finish required, with temper as required to suit forming operations and performance required; with smooth, flat surface.

1. Exposed Coil-Coated Finish:

a. Two-Coat Fluoropolymer: AAMA 620. Fluoropolymer finish containing not less than seventy percent (70%) PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

2. Color: As selected by Architect and Owner from manufacturer's full range, to match existing.

2.3 UNDERLAYMENT MATERIALS

A. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt; nonperforated.

B. Slip Sheet: Rosin-sized building paper, 3 lb./100 sq. ft. minimum.

2.4 MISCELLANEOUS MATERIALS

A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal unless otherwise indicated.

B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal.

1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.

    a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
    b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.

2. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless-steel.

C. Sealant Tape: Pressure-sensitive, one hundred percent (100%) solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, non-sag, nontoxic, non-staining tape ½-inch-wide and 1/8-inch-thick.

D. Elastomeric Sealant: ASTM C 920, elastomeric polysulfide polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.

E. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.

F. Bituminous Coating: Cold-applied asphalt emulsion according to ASTM D 1187.

G. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

H. Downspout Boots: Of material and profile to align with and connect to storm water pipe riser.

2.5 FABRICATION, GENERAL

A. General: Custom fabricate sheet metal flashing and trim to comply with details shown and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required. Fabricate sheet metal flashing and trim in shop to greatest extent possible.

1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
2. Obtain field measurements for accurate fit before shop fabrication.
3. Form sheet metal flashing and trim to fit substrates without excessive oil canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
4. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.

B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of ¼-inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

C. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.

1. Form expansion joints of intermeshing hooked flanges, not less than 1-inch-deep, filled with butyl sealant concealed within joints.
2. Use lapped expansion joints only where indicated on Drawings.

D. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal to provide for proper installation of elastomeric sealant according to cited sheet metal standard.

E. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.

F. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard for application, but not less than thickness of metal being secured.

G. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use.

H. Do not use graphite pencils to mark metal surfaces.

2.6 ROOF-DRAINAGE SHEET METAL FABRICATIONS

A. Hanging Gutters: Fabricate to cross section required, complete with end pieces, outlet tubes, and other accessories as required. Fabricate in minimum 96-inch-long sections. Furnish flat-stock gutter brackets and twisted gutter spacers and straps fabricated from same metal as gutters, of size recommended by cited sheet metal standard but with thickness not less than twice the gutter thickness. Fabricate expansion joints, expansion-joint covers, and gutter accessories from same metal as gutters.

1. Gutter Profile: As indicated on Drawings.
2. Expansion Joints: Lap type.
3. Fabricate from the following materials:

a. Aluminum: 0.050-inch-thick.

A. Downspouts: Fabricate downspouts in profile and dimensions to match existing, complete with mitered elbows. Furnish with metal hangers from same material as downspouts and anchors. Shop fabricate elbows.

1. Fabricate from the following materials:

a. Aluminum: 0.040-inch-thick.

B. Collection Boxes: Fabricate conductor heads with flanged back and stiffened top edge and of dimensions and shape required, complete with outlet tubes, exterior flange trim, and built-in overflows. Fabricate from the following materials:

1. Aluminum: 0.032-inch-thick.

C. Parapet Scuppers: Fabricate scuppers to dimensions required, with closure flange trim to exterior, 4-inch-wide wall flanges to interior, and base extending 4 inches beyond cant or tapered strip into field of roof. Fabricate from the following materials:

1. Aluminum: 0.032-inch-thick.

2.7 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

A. Roof Fasciae and Other Exposed Flashings: Fabricate in minimum 96-inch-long, but not exceeding 12-foot-long sections. Furnish with 6-inch-wide, joint cover plates.

1. Joint Style: Overlapped, 4 inches wide.

2. Fabricate from the following materials:

    a. Aluminum: 0.050-inch-thick.

B. Base Flashing: Fabricate from the following materials:

1. Aluminum: 0.040-inch-thick.

C. Counterflashing: Shop fabricate interior and exterior corners. Fabricate from the following materials:

1. Aluminum: 0.032-inch-thick.

D. Reglets: Units of type, material, and profile required, formed to provide secure interlocking of separate reglet and counterflashing pieces, and compatible with flashing indicated with factory-mitered and -welded corners and junctions.

1. Aluminum: 0.024-inch-thick.
2. Masonry Type: Provide with offset top flange for embedment in masonry mortar joint.
3. Accessories:

    a. Counterflashing Wind-Restraint Clips: Provide clips to be installed before counterflashing to prevent wind uplift of counterflashing's lower edge.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, substrate, and other conditions affecting performance of the Work.

1. Verify compliance with requirements for installation tolerances of substrates.
2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

A. Felt Underlayment: Install felt underlayment, wrinkle free, using adhesive to minimize use of mechanical fasteners under sheet metal flashing and trim. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.

B. Apply slip sheet, wrinkle free, directly on substrate before installing sheet metal flashing and trim.

3.3 INSTALLATION, GENERAL

A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.

1. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
3. Space cleats not more than 12 inches apart. Attach each cleat with at least two (2) fasteners. Bend tabs over fasteners.
4. Install exposed sheet metal flashing and trim with limited oil canning, and free of buckling and tool marks.
5. Torch cutting of sheet metal flashing and trim is not permitted.
6. Do not use graphite pencils to mark metal surfaces.

B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.

1. Coat concealed side of sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.

C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.

1. Form expansion joints of intermeshing hooked flanges, not less than 1-inch-deep, filled with sealant concealed within joints.
2. Use lapped expansion joints only where indicated on Drawings.

D. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1¼ inches for nails and not less than ¾ inch for wood screws.

E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

F. Seal joints as required for watertight construction.

1. Use sealant-filled joints unless otherwise indicated. Embed hooked flanges of joint members not less than 1-inch into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is between 40 and 70 deg F (4 and 21 deg C), set joint members for fifty percent (50%) movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F (4 deg C).
2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."

G. Rivets: Rivet joints in uncoated aluminum and zinc where indicated and where necessary for strength.

3.4 ROOF-DRAINAGE SYSTEM INSTALLATION

A. General: Install sheet metal roof-drainage items to produce complete roof-drainage system according to cited sheet metal standard unless otherwise indicated. Coordinate installation of roof perimeter flashing with installation of roof-drainage system.

B. Hanging Gutters: Join sections with soldered joints. Provide for thermal expansion. Attach gutters at eave or fascia to firmly anchor them in position. Provide end closures and seal watertight with sealant. Slope to downspouts.

1. Fasten gutter spacers to front and back of gutter.
2. Anchor and loosely lock back edge of gutter to continuous eave or apron flashing.
3. Anchor gutter with gutter brackets spaced not more than 24 inches apart to roof deck, unless otherwise indicated, and loosely lock to front gutter bead.

C. Downspouts: Join sections with 1½ inch telescoping joints.

1. Provide hangers with fasteners designed to hold downspouts securely to walls. Locate hangers at existing locations minimum, but at top and bottom and at approximately 60 inches o.c.
2. Provide elbows at base of exposed downspout onto concrete splash blocks to direct water away from building.
3. Connect downspouts to underground drainage system where available.

D. Collection Boxes: Anchor securely to wall, with elevation of conductor head rim at minimum of 1-inch below scupper discharge.

E. Parapet Scuppers: Continuously support scupper, set to correct elevation, and seal flanges to interior wall face, over cants or tapered edge strips, and under roofing membrane.

1. Anchor scupper closure trim flange to exterior wall and seal with elastomeric sealant to scupper.

F. Expansion-Joint Covers: Install expansion-joint covers at locations and of configuration indicated. Lap joints minimum of 4 inches in direction of water flow.

3.5 ROOF FLASHING INSTALLATION

A. General: Install sheet metal flashing and trim to comply with performance requirements and cited sheet metal standard. Provide concealed fasteners where possible, and set units true to line, levels, and slopes. Install work with laps, joints, and seams that are permanently watertight and weather resistant.

B. Fasciae and Other Exposed Flashings: Anchor to resist uplift and outward forces according to recommendations in cited sheet metal standard unless otherwise indicated. Interlock bottom edge of roof edge flashing with continuous cleat anchored to substrate at staggered 3-inch centers.

C. Pipe or Post Counterflashing: Install counterflashing umbrella with close-fitting collar with top edge flared for elastomeric sealant, extending minimum of 4 inches over base flashing. Install stainless-steel draw band and tighten.

D. Counterflashing: Coordinate installation of counterflashing with installation of base flashing. Insert counterflashing in reglets or receivers and fit tightly to base flashing. Extend counterflashing 4 inches over base flashing. Lap counterflashing joints minimum of 4 inches and bed in sealant. Secure in waterproof manner by means of interlocking folded seam or blind rivets and sealant unless otherwise indicated.Counterflashing: End counterflashing at termination bars as indicated on Drawings. Seal termination bar with sealant as specified in Section 079200 “Sealants”.

F. Roof-Penetration Flashing: Coordinate installation of roof-penetration flashing with installation of roofing and other items penetrating roof. Seal with elastomeric sealant and clamp flashing to pipes that penetrate roof.

3.6 ERECTION TOLERANCES

A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of ¼-inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.7 CLEANING AND PROTECTION

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Clean off excess sealants.

C. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of sheet metal flashing and trim installation, remove unused materials and clean finished surfaces as recommended by sheet metal flashing and trim manufacturer. Maintain sheet metal flashing and trim in clean condition during construction.

D. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 076200

SECTION 077100 - ROOF SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Roof-edge specialties.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wood nailers, curbs, and blocking.
2. Section 076200 "Sheet Metal Flashing and Trim" for custom- and site-fabricated sheet metal flashing and trim.
3. Section 077200 "Roof Accessories" for set-on-type curbs, equipment supports, vents, and other manufactured roof accessory units.
4. Section 079200 "Joint Sealants" for field-applied sealants between roof specialties and adjacent materials.

C. Preinstallation Conference: Conduct conference at Project site.

1. Meet with Owner, Architect, Owner's insurer if applicable, roofing-system testing and inspecting agency representative, roofing Installer, roofing-system manufacturer's representative, Installer, structural-support Installer, and installers whose work interfaces with or affects roof specialties, including installers of roofing materials and accessories.
2. Examine substrate conditions for compliance with requirements, including flatness and attachment to structural members.
3. Review special roof details, roof drainage, and condition of other construction that will affect roof specialties.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: For roof specialties.

1. Include plans, elevations, expansion-joint locations, keyed details, and attachments to other work. Distinguish between plant- and field-assembled work.
2. Include details for expansion and contraction; locations of expansion joints, including direction of expansion and contraction.
3. Indicate profile and pattern of seams and layout of fasteners, cleats, clips, and other attachments.
4. Detail termination points and assemblies, including fixed points.
5. Include details of special conditions.

C. Samples: For each type of roof specialty and for each color and texture specified.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For manufacturer.

B. Product Test Reports: For roof-edge flashings, for tests performed by a qualified testing agency.

C. Sample Warranty: For manufacturer's special warranty.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roofing specialties to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer offering products meeting requirements that are tested to specified design pressure.

B. Source Limitations: Obtain roof specialties approved by manufacturer providing roofing-system warranty specified in Section 075216 “Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing”.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Do not store roof specialties in contact with other materials that might cause staining, denting, or other surface damage. Store roof specialties away from uncured concrete and masonry.

B. Protect strippable protective covering on roof specialties from exposure to sunlight and high humidity, except to extent necessary for the period of roof-specialty installation.

1.8 FIELD CONDITIONS

A. Field Measurements: Verify profiles and tolerances of roof-specialty substrates by field measurements before fabrication and indicate measurements on Shop Drawings.

B. Coordination: Coordinate roof specialties with flashing, trim, and construction of parapets, roof deck, roof and wall panels, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.9 WARRANTY

A. Roofing-System Warranty: Roof specialties are included in warranty provisions in Section 075216 “Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing”.

B. Special Warranty on Painted Finishes: Manufacturer agrees to repair finish or replace roof specialties that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Fluoropolymer Finish: Deterioration includes, but is not limited to, the following:

a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: Twenty (20) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General Performance: Roof specialties shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

B. Wind Design Standard: Manufacture and install copings and roof-edge specialties tested according to Chapter 16 of the International Building Code and capable of resisting the following design pressures:

1. Design Pressure: As indicated on Drawings.

C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of thermal movements. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

2.2 ROOF-EDGE SPECIALTIES

A. Roof-Edge Fascia: Manufactured, two-piece, roof-edge fascia consisting of snap-on metal fascia cover in section lengths not exceeding 12 feet and a continuous metal receiver with integral drip-edge cleat to engage fascia cover and secure single-ply roof membrane. Provide matching corner units.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

   a. Elevate Building Products, a Holcim company
   b. Johns Manville
   c. Perimeter Systems; a division of Southern Aluminum Finishing Company, Inc.
   d. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Formed Aluminum Sheet Fascia Covers: Aluminum sheet, minimum 0.050-inch-thick but thickness as required to meet performance requirements.

   a. Surface: Smooth, flat finish.
   b. Finish: Two-coat fluoropolymer.
   c. Color: As selected by Architect and Owner from manufacturer's entire range, to match existing.

3. Corners: Factory mitered and continuously welded.
4. Splice Plates: Concealed, of same material, finish, and shape as fascia cover.
5. Receiver: Manufacturer's standard material and thickness.

B. Metal Copings: Manufactured coping system consisting of metal coping cap in section lengths not exceeding 12 feet, concealed anchorage; with corner units, end cap units, and concealed splice plates with finish matching coping caps.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Elevate Building Products, a Holcim company
b. Johns Manville
c. Perimeter Systems; a division of Southern Aluminum Finishing Company, Inc.
d. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Formed Aluminum Sheet Coping Caps: Aluminum sheet, 0.050-inch-thick.

a. Surface: Smooth, flat finish.
b. Finish: Two-coat fluoropolymer.
c. Color: As selected by Architect and Owner from manufacturer's full range, to match existing.

2.3 MATERIALS

A. Aluminum Sheet: ASTM B 209 alloy as standard with manufacturer for finish required, with temper to suit forming operations and performance required.

2.4 UNDERLAYMENT MATERIALS

A. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, non-perforated.

B. Slip Sheet: Rosin-sized building paper, 3-lb./100 sq. ft. minimum.

2.5 MISCELLANEOUS MATERIALS

A. Fasteners: Manufacturer's recommended fasteners, suitable for application and designed to meet performance requirements. Furnish the following unless otherwise indicated:

1. Exposed Penetrating Fasteners: Gasketed screws with hex washer heads matching color of sheet metal.
2. Fasteners for Aluminum: Aluminum or Series 300 stainless-steel.

B. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane polymer sealant of type, grade, class, and use classifications required by roofing-specialty manufacturer for each application.

C. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type joints with limited movement.

D. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.

E. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.6 FINISHES

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

D. Coil-Coated Aluminum Sheet Finishes:

1. High-Performance Organic Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

a. Two-Coat Fluoropolymer: AAMA 2605. Fluoropolymer finish containing not less than seventy percent (70%) PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
b. Concealed Surface Finish: Apply pretreatment and manufacturer's standard acrylic or polyester backer finish consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.

B. Examine walls, roof edges, and parapets for suitable conditions for roof specialties.

C. Verify that substrate is sound, dry, smooth, clean, sloped for drainage where applicable, and securely anchored.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

A. Felt Underlayment: Install with adhesive for temporary anchorage to minimize use of mechanical fasteners under roof specialties. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.

B. Slip Sheet: Install with tape or adhesive for temporary anchorage to minimize use of mechanical fasteners under roof specialties. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.

3.3 INSTALLATION, GENERAL

A. General: Install roof specialties according to manufacturer's written instructions. Anchor roof specialties securely in place, with provisions for thermal and structural movement. Use fasteners, protective coatings, separators, underlayments, sealants, and other miscellaneous items as required to complete roof-specialty systems.

1. Install roof specialties level, plumb, true to line and elevation; with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.
2. Provide uniform, neat seams with minimum exposure of sealant.

3. Install roof specialties to fit substrates and to result in weathertight performance. Verify shapes and dimensions of surfaces to be covered before manufacture.
4. Torch cutting of roof specialties is not permitted.
5. Do not use graphite pencils to mark metal surfaces.

B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

1. Coat concealed side of uncoated aluminum roof specialties with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
2. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof specialties for waterproof performance.

C. Expansion Provisions: Allow for thermal expansion of exposed roof specialties.

1. Space movement joints at a maximum of 12 feet with no joints within 18 inches of corners or intersections unless otherwise indicated on Drawings.
2. When ambient temperature at time of installation is between 40 and 70 deg F (4 and 21 deg C), set joint members for fifty percent (50%) movement each way. Adjust setting proportionately for installation at higher ambient temperatures.

D. Fastener Sizes: Use fasteners of sizes that penetrate wood blocking or sheathing not less than 1¼ inches for nails and not less than ¾ inch for wood screws.

E. Seal concealed joints with butyl sealant as required by roofing-specialty manufacturer.

F. Seal joints as required for weathertight construction. Place sealant to be completely concealed in joint. Do not install sealants at temperatures below 40 deg F (4 deg C).

3.4 ROOF-EDGE SPECIALTIES INSTALLATION

A. Install cleats, cants, and other anchoring and attachment accessories and devices with concealed fasteners.

B. Anchor roof edgings with manufacturer's required devices, fasteners, and fastener spacing to meet performance requirements.

C. Anchor copings with manufacturer's required devices, fasteners, and fastener spacing to meet performance requirements.

1. Interlock face and back leg drip edges of snap-on coping cap into cleated anchor plates anchored to substrate at manufacturer's required spacing that meets performance requirements.

3.5 CLEANING AND PROTECTION

A. Clean off excess sealants.

B. Remove temporary protective coverings and strippable films as roof specialties are installed. On completion of installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain roof specialties in a clean condition during construction.

C. Replace roof specialties that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 077100

SECTION 077129 - MANUFACTURED ROOF EXPANSION JOINTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Bellows-type roof expansion joints.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wooden curbs or cants for mounting roof expansion joints.
2. Section 076200 "Sheet Metal Flashing and Trim" for shop- and field-fabricated sheet metal expansion-joint systems, flashing, and other sheet metal items.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For roof expansion joints.

1. Include plans, elevations, sections, and attachment details.
2. Include details of splices, intersections, transitions, fittings, method of field assembly, and location and size of each field splice.
3. Provide isometric drawings of intersections, terminations, and changes in joint direction or planes, depicting how components interconnect with each other and adjacent construction to allow movement and achieve waterproof continuity.

C. Samples: For each exposed product and for each color specified, 6 inches in size.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Test Reports: For each fire-barrier provided as part of a roof-expansion-joint assembly, for tests performed by a qualified testing agency.

C. Sample Warranties: For special warranties.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Installer of roofing membrane.

1.6 WARRANTY

A. Special Warranty: Manufacturer and Installer agree to repair or replace roof expansion joints and components that leak, deteriorate beyond normal weathering, or otherwise fail in materials or workmanship within specified warranty period.

1. Warranty Period: Two (2) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General: Roof expansion joints shall withstand exposure to weather, remain watertight, and resist the movements indicated without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, overstressing of components, failure of joint seals, failure of connections, and other detrimental effects.

1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

C. Fire-Test-Response Characteristics: Provide fire-barrier assemblies with fire-test-response characteristics as determined by testing identical products, per test method indicated, by UL or another testing agency acceptable to authorities having jurisdiction. Assemblies shall be capable of anticipated movement while maintaining fire rating. Fire-barrier products shall bear classification marking of qualified testing agency.

2.2 BELLOWS-TYPE ROOF EXPANSION JOINTS

A. Source Limitations: Obtain bellows-type roof expansion joints approved by roofing manufacturer and that are part of roofing membrane warranty.

B. Flanged Bellows Roof Expansion Joint: Manufactured, continuous, waterproof, joint-cover assembly, consisting of exposed membrane bellows, laminated to flexible, closed-cell support foam, and secured along each edge to a 3- to 4-inch-wide metal flange for nailing to substrate. Provide each size and type indicated, factory-fabricated units for corner and joint intersections and horizontal and vertical transitions including those to other building expansion joints, splicing units, adhesives, and other components as recommended by roof-expansion-joint manufacturer for complete installation. Fabricate each assembly specifically for installation configuration indicated on Drawings.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Johns Manville; **Expand-O-Flash**
b. JointMaster, a division of InPro Corporation; **672**
c. MM Systems Corporation; **Series ERFL**
d. Substitutions: Under provision of Section 012500 “Substitution Procedures”.

2. Joint Movement Capability: Plus and minus fifty percent (+/-50%) of joint size.

3. Bellows: Neoprene flexible membrane, nominal 60 mils thick.

   a. Color: Black.

4. Flanges: Aluminum, 0.032-inch-thick.

   a. Form: As indicated on Drawings.
   b. Mortar Flanges: Where flanges will be embedded in concrete or mortar, provide perforated-metal mortar flanges.

5. Fire Barrier: Manufacturer's standard fire-resistive joint system with ratings determined per ASTM E 119 to resist spread of fire and to accommodate building thermal movements without impairing its ability to resist the passage of fire and hot gases.

   a. Fire-Resistance Rating: Not less than 2-hour.

2.3 MATERIALS

A. Aluminum: ASTM B 209 for sheet and plate, ASTM B 221 for extrusions; alloy as standard with manufacturer for finish required, with temper to suit forming operations and performance required.

   1. Apply manufacturer's standard protective coating on aluminum surfaces to be placed in contact with cementitious or preservative-treated wood materials.
   2. Mill Finish: As manufactured.

B. Neoprene Membrane: Neoprene sheet recommended by EPDM manufacturer for resistance to hydrocarbons, non-aromatic solvents, grease, and oil; and as standard with roof-expansion-joint manufacturer for application.

C. Adhesives: As recommended by roof-expansion-joint manufacturer and with a VOC content of 70 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

D. Fasteners: Manufacturer's recommended fasteners, suitable for application and designed to withstand design loads.

   1. Exposed Fasteners: Gasketed. Use screws with hex washer heads matching color of material being fastened.

E. Mineral-Fiber Blanket: ASTM C 665.

F. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.

B. Examine roof-joint openings, inside surfaces of parapets, and expansion-control joint systems that interface with roof expansion joints, for suitable conditions where roof expansion joints will be installed.

C. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Comply with manufacturer's written instructions for handling and installing roof expansion joints.

1. Anchor roof expansion joints securely in place, with provisions for required movement. Use fasteners, protective coatings, sealants, and miscellaneous items as required to complete roof expansion joints.
2. Install roof expansion joints true to line and elevation; with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.
3. Provide for linear thermal expansion of roof expansion joint materials.
4. Provide uniform profile of roof expansion joint throughout its length; do not stretch or squeeze membranes.
5. Provide uniform, neat seams.
6. Install roof expansion joints to fit substrates and to result in watertight performance.
7. Torch cutting of roof expansion joints is not permitted.
8. Do not use graphite pencils to mark aluminum surfaces.

B. Splices: Splice roof expansion joints with materials provided by roof-expansion-joint manufacturer for this purpose, to provide continuous, uninterrupted, and waterproof joints.

C. Fire Barrier: Install fire barrier where indicated to provide continuous, uninterrupted fire resistance throughout length of roof expansion joint, including transitions and end joints.

D. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

3.3 PROTECTION

A. Protect roof expansion joints from foot traffic, displacement, or other damage.

B. Remove and replace roof expansion joints and components that become damaged by moisture or otherwise.

END OF SECTION 077129

SECTION 077200 - ROOF ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Roof hatches.
2. Preformed flashing sleeves.

B. Related Sections:

1. Section 076200 "Sheet Metal Flashing and Trim" for shop- and field-formed metal flashing, roof-drainage systems, roof expansion-joint covers, and miscellaneous sheet metal trim and accessories.
2. Section 077100 "Roof Specialties" for manufactured fasciae and roof edge flashings.
3. Section 077129 "Manufactured Roof Expansion Joints" for manufactured roof expansion-joint covers.

1.3 COORDINATION

A. Coordinate layout and installation of roof accessories with roofing membrane and base flashing and interfacing and adjoining construction to provide a leakproof, weathertight, secure, and noncorrosive installation.

B. Coordinate dimensions with rough-in information or Shop Drawings of equipment to be supported.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of roof accessory.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: For roof accessories.

1. Include plans, elevations, keyed details, and attachments to other work. Indicate dimensions, loadings, and special conditions. Distinguish between plant- and field-assembled work.

C. Samples: For each exposed product and for each color and texture specified, prepared on Samples of size to adequately show color.

1.5 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Roof plans, drawn to scale, and coordinating penetrations and roof-mounted items. Show the following:

1. Size and location of roof accessories specified in this Section.
2. Method of attaching roof accessories to roof or building structure.
3. Other roof-mounted items including mechanical and electrical equipment, ductwork, piping, and conduit.
4. Required clearances.

B. Sample Warranties: For manufacturer's special warranties.

1.6 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For roof accessories to include in operation and maintenance manuals.

1.7 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace roof hatch that fails in materials or workmanship within specified warranty period.

1. Warranty Period: Five (5) years from date of Substantial Completion.

B. Special Warranty on Painted Finishes: Manufacturer's standard form in which manufacturer agrees to repair finishes or replace roof accessories that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Finish Warranty Period: Five (5) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General Performance: Roof accessories shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

2.2 ROOF HATCHES

A. Roof Hatches: Metal roof-hatch units with lids and insulated single-walled curbs, welded or mechanically fastened and sealed corner joints, continuous lid-to-curb counterflashing and weathertight perimeter gasketing, and integrally formed deck-mounting flange at perimeter bottom.

1. Basis-of-Design:

a. Bilco Company (The); **Type F-50**

2. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Milcor Inc.; Commercial Products Group of Hart & Cooley, Inc.
b. Precision Ladders, LLC
c. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

B. Type and Size: Single-leaf lid, sized to match existing.

C. Loads: Minimum 40-lbf/sq. ft. external live load and 20-lbf/sq. ft. internal uplift load.

D. Hatch Material: Aluminum sheet.

1. Thickness: 0.090-inch.
2. Finish: Mill.

E. Construction:

1. Insulation: Glass-fiber board.
2. Hatch Lid: Opaque, insulated, and double walled, with manufacturer's standard metal liner of same material and finish as outer metal lid.
3. Fabricate curbs to minimum height of 12 inches above roofing surface unless otherwise indicated.

F. Hardware: Spring operators, hold-open arm, galvanized steel spring latch with turn handles, stainless-steel butt- or pintle-type hinge system, and padlock hasps inside and outside.

G. Safety Railing System: Roof-hatch manufacturer's standard system including rails, clamps, fasteners, safety barrier at railing opening, and accessories required for a complete installation; attached to roof hatch and complying with 29 CFR 1910.23 requirements and authorities having jurisdiction.

1. Height: 42 inches above finished roof deck.
2. Posts and Rails: Galvanized-steel pipe, 1¼ inches in diameter or galvanized-steel tube, 1-5/8 inches in diameter.
3. Flat Bar: Galvanized steel, 2 inches high by 3/8-inch-thick.
4. Maximum Opening Size: System constructed to prevent passage of a sphere 21 inches in diameter.
5. Self-Latching Gate: Fabricated of same materials and rail spacing as safety railing system. Provide manufacturer's standard hinges and self-latching mechanism.
6. Post and Rail Tops and Ends: Weather resistant, closed or plugged with prefabricated end fittings.
7. Provide weep holes or another means to drain entrapped water in hollow sections of handrail and railing members.
8. Fabricate joints exposed to weather to be watertight.
9. Fasteners: Manufacturer's standard, finished to match railing system.
10. Finish: Manufacturer's standard baked enamel or powder coat.

a. Color: As selected by Architect and Owner from manufacturer's full range.

H. Ladder-Assist Post: Roof-hatch manufacturer's standard device for attachment to roof-access ladder.

1. Operation: Post locks in place on full extension; release mechanism returns post to closed position.
2. Height: 42 inches above finished roof deck.
3. Material: Hot-dip galvanized steel tube.
4. Post: 1-5/8-inch-diameter pipe.

5. Finish: Manufacturer's standard baked enamel or powder coat.

    a. Color: As selected by Architect and Owner from manufacturer's full range.

2.3 PREFORMED FLASHING SLEEVES

A. Vent Stack Flashing: Metal flashing sleeve, uninsulated, with integral deck flange.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

    a. Custom Solution Roof and Metal Products
    b. Milcor Inc.; Commercial Products Group of Hart & Cooley, Inc.
    c. Thaler Metal USA Inc.
    d. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Metal: Aluminum sheet, 0.063-inch-thick.
3. Height: 19 inches.
4. Diameter: As required.
5. Finish: Manufacturer's standard.

2.4 METAL MATERIALS

A. Aluminum Sheet: ASTM B 209, manufacturer's standard alloy for finish required, with temper to suit forming operations and performance required.

1. Mill Finish: As manufactured.
2. Exposed Coil-Coated Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

    a. Two-Coat Fluoropolymer Finish: AAMA 2605. System consisting of primer and fluoropolymer color topcoat containing not less than seventy percent (70%) polyvinylidene fluoride (PVDF) resin by weight.

B. Aluminum Extrusions and Tubes: ASTM B 221, manufacturer's standard alloy and temper for type of use, finished to match assembly where used; otherwise mill finished.

C. Galvanized-Steel Tube: ASTM A 500, round tube, hot-dip galvanized according to ASTM A 123.

D. Steel Pipe: ASTM A 53, galvanized.

2.5 MISCELLANEOUS MATERIALS

A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items required by manufacturer for a complete installation.

B. Glass-Fiber Board Insulation: ASTM C 726, nominal density of 3 lb./cu. ft., thermal resistivity of 4.3 deg F x h x sq. ft./Btu x in. at 75 deg F (29.8 K x m/W at 24 deg C), thickness as indicated.

C. Wood Nailers: Softwood lumber, pressure treated with waterborne preservatives for aboveground use, acceptable to authorities having jurisdiction, containing no arsenic or chromium, and complying with AWPA C2; not less than 1½ inches thick.

D. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.

E. Underlayment:

1. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, non-perforated.
2. Polyethylene Sheet: 6-mil-thick polyethylene sheet complying with ASTM D 4397.
3. Slip Sheet: Building paper, 3-lb/100 sq. ft. minimum, rosin sized.

F. Fasteners: Roof accessory manufacturer's recommended fasteners suitable for application and metals being fastened. Match finish of exposed fasteners with finish of material being fastened. Provide non-removable fastener heads to exterior exposed fasteners. Furnish the following unless otherwise indicated:

1. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless-steel.

G. Gaskets: Manufacturer's standard tubular or fingered design of neoprene, EPDM, PVC, or silicone or a flat design of foam rubber, sponge neoprene, or cork.

H. Elastomeric Sealant: ASTM C 920, elastomeric polymer sealant as recommended by roof accessory manufacturer for installation indicated; low modulus; of type, grade, class, and use classifications required to seal joints and remain watertight.

I. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for expansion joints with limited movement.

J. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

K. Concrete Splash Blocks: 2-foot-long x 1-foot-wide flared concrete splash block pitched to drain away from the building, with side walls and textured finish.

2.6 GENERAL FINISH REQUIREMENTS

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Baked-Enamel or Powder-Coat Finish: After cleaning and pretreating, apply manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat to a minimum dry film thickness of 2 mils.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.

B. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

C. Verify dimensions of roof openings for roof accessories.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Install roof accessories according to manufacturer's written instructions.

1. Install roof accessories level, plumb, true to line and elevation, and without warping, jogs in alignment, excessive oil canning, buckling, or tool marks.
2. Anchor roof accessories securely in place so they are capable of resisting indicated loads.
3. Use fasteners, separators, sealants, and other miscellaneous items as required to complete installation of roof accessories and fit them to substrates.
4. Install roof accessories to resist exposure to weather without failing, rattling, leaking, or loosening of fasteners and seals.

B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

1. Coat concealed side of uncoated aluminum roof accessories with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
2. Underlayment: Where installing roof accessories directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet, or install a course of polyethylene sheet.
3. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof accessories for waterproof performance.

C. Roof-Hatch Installation:

1. Install roof hatch so top surface of hatch curb is level.
2. Verify that roof hatch operates properly. Clean, lubricate, and adjust operating mechanism and hardware.
3. Attach safety railing system to roof-hatch curb.
4. Attach ladder-assist post according to manufacturer's written instructions.

D. Preformed Flashing-Sleeve Installation: Secure flashing sleeve to roof membrane according to flashing-sleeve manufacturer's written instructions.

E. Seal joints with elastomeric or butyl sealant as required by roof accessory manufacturer.

3.3 REPAIR AND CLEANING

A. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing according to ASTM A 780.

B. Clean exposed surfaces according to manufacturer's written instructions.

C. Clean off excess sealants.

D. Replace roof accessories that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 077200

SECTION 078413 - PENETRATION FIRESTOPPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Fireproof firestopping and firesafing materials and accessories.

1.3 PERFORMANCE REQUIREMENTS

A. Fireproofing Materials: ASTM E 119 and ASTM E 814 to achieve a fire rating as noted on Drawings.

B. Surface Burning: ASTM E 84 with a flame spread/fuel contributed/smoke developed rating of 5/0/0.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated provide characteristics, performance and limitation criteria.

B. Manufacturer's Installation Instructions: Indicate preparation and installation instructions.

C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing the products specified in this Section with minimum three (3) years documented experience.

B. Applicator: Company specializing in performing the work of this Section with minimum five (5) years documented experience.

1.6 REGULATORY REQUIREMENTS

A. Conform to applicable State Building code for fire resistance ratings and surface burning characteristics.

B. UL Classifications for these systems shall be (all two (2) hours or more):

1. Duct Penetrations: C-AJ-7027
2. Pipe Penetrations: C-AJ-1079
3. Cable Penetrations: C-AJ-1079
4. Conduit Penetrations: C-AJ-1079

1.7 MOCK-UP

A. Provide mock-up of applied firestopping material.

B. Apply 1 lineal ft to a representative substrate surface.

C. If accepted, mock-up will demonstrate minimum standard for the Work.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not apply materials when temperature of substrate material and ambient air is below 60 degrees F.

B. Maintain this minimum temperature before, during and for three (3) days after installation of materials.

C. Provide ventilation in areas to receive solvent cured materials.

1.9 SEQUENCING

A. Sequence Work to permit firestopping materials to be installed after adjacent and surrounding work is complete.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Thermal Ceramics; **Firemaster Putty, Bulk and Blankets**

B. Tremco Incorporated; **Fyre-shield and Cerablanket FS Hilti, Inc.**

C. United States Gypsum; **Thermafiber Safing Insulation and FIRECODE compound**

D. Substitutions: Under provisions of Section 016310 “Equals and Substitutions”.

2.2 MATERIALS

A. Firestopping Material: Single component silicone elastomeric compounds; conforming to the following:

1. Elongation & Shrinkage: Five percent (5%).
2. Tensile Strength: 300 psi.
3. Density: 8 lb/cu ft.
4. Surface Durability: 35 (Shore Hardness).
5. Durability and Longevity: Permanent.
6. Side Effects during Installation: Non-toxic.
7. Long Term Side Effects: None.

B. Primer: Type recommended by firestopping manufacturer for specific substrate surfaces.

C. Firesafing Blankets: ASTM C 665; 4 psf nominal density firesafing insulation.

D. Putty Pads: UL CLIV; acoustic, intumescent pad; 3.2mm thickness.

2.3 ACCESSORIES

A. Dam Material: Mineral fiber matting, permanent.

B. Retainers: Stainless clips to support mineral fiber matting

2.4 FINISHES

A. Color: Dark gray or manufacturer’s standard color.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for opening configurations, penetrating items, substrates, and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning: Clean out openings immediately before installing penetration firestopping to comply with manufacturer's written instructions and with the following requirements:

1. Remove from surfaces of opening substrates and from penetrating items foreign materials that could interfere with adhesion of penetration firestopping.
2. Clean opening substrates and penetrating items to produce clean, sound surfaces capable of developing optimum bond with penetration firestopping. Remove loose particles remaining from cleaning operation.
3. Remove laitance and form-release agents from concrete.

B. Install backing materials to arrest liquid material leakage.

3.3 INSTALLATION

A. General: Install penetration firestopping to comply with manufacturer's written installation instructions and published drawings for products and applications indicated.

B. Apply firestopping material to all wall and floor penetrations through rated assemblies. These penetrations include electrical conduit and raceways, plumbing and heating system penetrations, ducts and other system chases.

C. Apply primer and materials in accordance with manufacturer's instructions.

D. Apply firestopping material in sufficient thickness to achieve rating to a density of fifty percent (50%) to uniform density and texture.

E. Install material at walls or partition openings which contain penetrating sleeves, piping, ductwork, conduit and other items requiring firestopping.

F. Remove dam material after firestopping material has cured.

3.4 CLEANING AND PROTECTION

A. Clean off excess materials adjacent to openings as the Work progresses by methods and with cleaning materials that are approved in writing by penetration firestopping manufacturers and that do not damage materials in which openings occur.

B. Provide final protection and maintain conditions during and after installation that ensure that penetration firestopping is without damage or deterioration at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, immediately cut out and remove damaged or deteriorated penetration firestopping and install new materials to produce systems complying with specified requirements.

3.5 SCHEDULE

A. See Construction Documents for rating information and construction details and conditions.

B. Firesafe all penetrations through new and existing masonry and gypsum board construction in the project work areas, equal to the one (1) or two (2) hour rating of the appropriate spaces.

END OF SECTION 078413

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Silicone joint sealants.

1.3 ACTION SUBMITTALS

A. Product Data: For each joint-sealant product indicated.

B. Samples: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.

C. Joint-Sealant Schedule: Include the following information:

1. Joint-sealant application, joint location, and designation.
2. Joint-sealant manufacturer and product name.
3. Joint-sealant formulation.
4. Joint-sealant color.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer.

B. Product Certificates: For each kind of joint sealant and accessory, from manufacturer.

C. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, indicating that sealants comply with requirements.

D. Warranties: Sample of special warranties.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.

B. Source Limitations: Obtain each kind of joint sealant from single source from single manufacturer.

C. Product Testing: Test joint sealants using a qualified testing agency.

1. Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.

1.6 PROJECT CONDITIONS

A. Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F (5 deg C).
2. When joint substrates are wet.
3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.7 WARRANTY

A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Five (5) years from date of Substantial Completion.

B. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:

1. Movement of the structure caused by structural settlement or errors attributable to design or construction resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
2. Disintegration of joint substrates from natural causes exceeding design specifications.
3. Mechanical damage caused by individuals, tools, or other outside agents.
4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

B. VOC Content of Sealants: Sealants and sealant primers used as part of the weatherproofing system shall comply with the following:

1. Exterior: VOC content of 100 g/L or less.

C. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.

D. Stain-Test-Response Characteristics: Where sealants are specified to be non-staining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.

E. Colors of Exposed Joint Sealants: As selected by Architect and Owner from manufacturer's full range, to match adjacent where required.

2.2 SILICONE JOINT SEALANTS

A. Silicone, Non-Staining: Non-Staining, single-component, non-sag, plus fifty percent (+50%) and minus fifty percent (-50%) movement capability, non-traffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 50, Use NT.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

a. Dow Corning Corporation
b. Master Bond, Inc.
c. Pecora Corporation
d. Tremco Incorporated
e. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2.3 JOINT SEALANT BACKING

A. General: Provide sealant backings of material that are non-staining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

B. Cylindrical Sealant Backings: ASTM C 1330, Type B (bi-cellular material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

2.4 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.

C. Masking Tape: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:

1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Porous joint substrates include the following:

    a. Concrete.
    b. Masonry.

3. Remove laitance and form-release agents from concrete.
4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:

    a. Metal.
    b. Glass.

B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.

B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

1. Do not leave gaps between ends of sealant backings.
2. Do not stretch, twist, puncture, or tear sealant backings.
3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:

1. Place sealants so they directly contact and fully wet joint substrates.
2. Completely fill recesses in each joint configuration.
3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

F. Tooling of Non-Sag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.

1. Remove excess sealant from surfaces adjacent to joints.
2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
4. Provide flush joint profile where indicated per Figure 8B in ASTM C 1193.
5. Provide recessed joint configuration of recess depth and at locations indicated per Figure 8C in ASTM C 1193.

    a. Use masking tape to protect surfaces adjacent to recessed tooled joints.

3.4 CLEANING

A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

3.6 JOINT-SEALANT SCHEDULE

A. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal non-traffic surfaces.

1. Joint Locations:

    a. Control and expansion joints in unit masonry.
    b. Joints between different materials.
    c. Perimeter joints between materials listed above and frames of exterior openings.
    d. Other joints as indicated.

2. Joint Sealant: Silicone, non-staining, S, NS, 50, NT.

END OF SECTION 079200

SECTION 220719 - PLUMBING PIPING INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes insulating the following plumbing piping services:

1. Stormwater piping exposed to freezing conditions.
2. Roof drains and rainwater leaders.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated. Include thermal conductivity, water-vapor permeance thickness, and jackets (both factory- and field-applied, if any).

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

1. Detail application of protective shields, saddles, and inserts at hangers for each type of insulation and hanger.
2. Detail insulation application at pipe expansion joints for each type of insulation.
3. Detail insulation application at elbows, fittings, flanges, valves, and specialties for each type of insulation.
4. Detail removable insulation at piping specialties, equipment connections, and access panels.
5. Detail application of field-applied jackets.
6. Detail application at linkages of control devices.

C. Samples: For each type of insulation and jacket indicated. Identify each Sample, describing product and intended use. Sample sizes are as follows:

1. Preformed Pipe Insulation Materials: 12 inches long by NPS 2.
2. Jacket Materials for Pipe: 12 inches long by NPS 2.
3. Sheet Jacket Materials: 12 inches square.
4. Manufacturer's Color Charts: For products where color is specified, show the full range of colors available for each type of finish material.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer.

B. Material Test Reports: From a qualified testing agency acceptable to authorities having jurisdiction indicating, interpreting, and certifying test results for compliance of insulation materials, sealers, attachments, cements, and jackets, with requirements indicated. Include dates of tests and test methods employed.

C. Field quality-control reports.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Skilled mechanics who have successfully completed an apprenticeship program or another craft training program certified by the Department of Labor, Bureau of Apprenticeship and Training.

B. Surface-Burning Characteristics: For insulation and related materials, as determined by testing identical products according to ASTM E 84 by a testing agency acceptable to authorities having jurisdiction. Factory label insulation and jacket materials and adhesive, mastic, tapes, and cement material containers, with appropriate markings of applicable testing agency.

1. Insulation Installed Indoors: Flame-spread index of 25 or less, and smoke-developed index of 50 or less.
2. Insulation Installed Outdoors: Flame-spread index of 75 or less, and smoke-developed index of 150 or less.

C. Comply with the following applicable standards and other requirements specified for miscellaneous components:

1. Supply and Drain Protective Shielding Guards: ICC A117.1.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Packaging: Insulation material containers shall be marked by manufacturer with appropriate ASTM standard designation, type and grade, and maximum use temperature.

1.7 COORDINATION

A. Coordinate sizes and locations of supports, hangers, and insulation shields specified in Section 220529 "Hangers and Supports for Plumbing Piping and Equipment."

B. Coordinate clearance requirements with piping Installer for piping insulation application. Before preparing piping Shop Drawings, establish and maintain clearance requirements for installation of insulation and field-applied jackets and finishes and for space required for maintenance.

1.8 SCHEDULING

A. Schedule insulation application after pressure testing systems. Insulation application may begin on segments that have satisfactory test results.

B. Complete installation and concealment of plastic materials as rapidly as possible in each area of construction.

PART 2 - PRODUCTS

2.1 INSULATION MATERIALS

A. Pipe insulation thickness shall conform to ASHRAE 90.1 2007, Table 6.8.3.

B. Comply with requirements in "Piping Insulation Schedule, General" and "Indoor Piping Insulation Schedule" articles for where insulating materials shall be applied.

C. Products shall not contain asbestos, lead, mercury, or mercury compounds.

D. Products that come in contact with stainless-steel shall have a leachable chloride content of less than 50 ppm when tested according to ASTM C 871.

E. Insulation materials for use on austenitic stainless-steel shall be qualified as acceptable according to ASTM C 795.

F. Foam insulation materials shall not use CFC or HCFC blowing agents in the manufacturing process.

G. Mineral-Fiber, Preformed Pipe Insulation:

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Johns Manville; a Berkshire Hathaway company; **Micro-Lok**
b. Knauf Insulation; **Earthwool 1000 Degree Pipe Insulation with ECOSE Technology**
c. Owens Corning; **Fiberglas Pipe Insulation**

2. Type I, 850 Deg F Materials: Mineral or glass fibers bonded with a thermosetting resin. Comply with ASTM C 547, Type I, Grade A, with factory-applied ASJ-SSL. Factory-applied jacket requirements are specified in "Factory-Applied Jackets" Article.

2.2 INSULATING CEMENTS

A. Mineral-Fiber Insulating Cement: Comply with ASTM C 195.

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Ramco Insulation, Inc; **Super-Stik**

B. Expanded or Exfoliated Vermiculite Insulating Cement: Comply with ASTM C 196.

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Ramco Insulation, Inc; **Thermokote V**

C. Mineral-Fiber, Hydraulic-Setting Insulating and Finishing Cement: Comply with ASTM C 449.

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Ramco Insulation, Inc; **Ramcote 1200** and **Quik-Cote**

2.3 ADHESIVES

A. Materials shall be compatible with insulation materials, jackets, and substrates and for bonding insulation to itself and to surfaces to be insulated, unless otherwise indicated.

B. Cellular-Glass Adhesive: Two-component, thermosetting urethane adhesive containing no flammable solvents, with a service temperature range of minus 100 to plus 200 deg F.

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Foster Brand; H. B. Fuller Construction Products; **81-84**

2. For indoor applications, adhesive shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

C. Mineral-Fiber Adhesive: Comply with MIL-A-3316C, Class 2, Grade A.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-127**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; **85-60/85-70**
d. Mon-Eco Industries, Inc; **22-25**

2. For indoor applications, adhesive shall have a VOC content of 80 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

D. ASJ Adhesive, and FSK Jacket Adhesive: Comply with MIL-A-3316C, Class 2, Grade A for bonding insulation jacket lap seams and joints.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-82**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; **85-20**
d. Mon-Eco Industries, Inc; **22-25**

2. For indoor applications, adhesive shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.4 MASTICS

A. Materials shall be compatible with insulation materials, jackets, and substrates; comply with MIL-PRF-19565C, Type II.

1. For indoor applications, use mastics that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

B. Breather Mastic: Water based; suitable for indoor and outdoor use on above-ambient services.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-10**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; 4**6-50**
d. Knauf Insulation; EXPERT Mastics - **KI-705 ASJ+**
e. Mon-Eco Industries, Inc; **55-50**
f. Vimasco Corporation; **WC-1/WC-5**

2. Water-Vapor Permeance: ASTM F 1249, 1.8 perms at 0.0625-inch dry film thickness.
3. Service Temperature Range: Minus 20 to plus 180 deg F.
4. Solids Content: Sixty percent (60%) by volume and sixty-six percent (66%) by weight.
5. Color: White.

2.5 LAGGING ADHESIVES

A. Description: Comply with MIL-A-3316C, Class I, Grade A, and shall be compatible with insulation materials, jackets, and substrates.

1. For indoor applications, use lagging adhesives that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
2. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-50 AHV2**
b. Foster Brand; H. B. Fuller Construction Products; **30-36**
c. Vimasco Corporation; **713** and **714**

3. Fire-resistant, water-based lagging adhesive and coating for use indoors to adhere fire-resistant lagging cloths over pipe insulation.
4. Service Temperature Range: 0 to plus 180 deg F.
5. Color: White.

2.6 SEALANTS

A. Joint Sealants:

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-76**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; **30-45**
d. Mon-Eco Industries, Inc; **44-05**
e. Pittsburgh Corning Corporation; **Pittseal 444**

2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Permanently flexible, elastomeric sealant.
4. Service Temperature Range: Minus 100 to plus 300 deg F.
5. Color: White or gray.
6. For indoor applications, sealants shall have a VOC content of 420 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

B. FSK and Metal Jacket Flashing Sealants:

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-76**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; **95-44**
d. Mon-Eco Industries, Inc; **44-05**

2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Fire- and water-resistant, flexible, elastomeric sealant.
4. Service Temperature Range: Minus 40 to plus 250 deg F.
5. Color: Aluminum.
6. For indoor applications, sealants shall have a VOC content of 420 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

C. ASJ Flashing Sealants, and Vinyl, PVDC, and PVC Jacket Flashing Sealants:

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-76**

2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Fire- and water-resistant, flexible, elastomeric sealant.
4. Service Temperature Range: Minus 40 to plus 250 deg F.
5. Color: White.
6. For indoor applications, sealants shall have a VOC content of 420 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.7 FACTORY-APPLIED JACKETS

A. Insulation system schedules indicate factory-applied jackets on various applications. When factory-applied jackets are indicated, comply with the following:

1. ASJ: White, Kraft-paper, fiberglass-reinforced scrim with aluminum-foil backing; complying with ASTM C 1136, Type I.
2. ASJ-SSL: ASJ with self-sealing, pressure-sensitive, acrylic-based adhesive covered by a removable protective strip; complying with ASTM C 1136, Type I.
3. FSK Jacket: Aluminum-foil, fiberglass-reinforced scrim with Kraft-paper backing; complying with ASTM C 1136, Type II.

2.8 FIELD-APPLIED JACKETS

A. Field-applied jackets shall comply with ASTM C 921, Type I, unless otherwise indicated.

B. PVC Jacket: High-impact-resistant, UV-resistant PVC complying with ASTM D 1784, Class 16354-C; thickness as scheduled; roll stock ready for shop or field cutting and forming. Thickness is indicated in field-applied jacket schedules.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Johns Manville; a Berkshire Hathaway company; **Zeston**
b. P.I.C. Plastics, Inc; **FG Series**
c. Proto Corporation; **LoSmoke**
d. Speedline Corporation; **SmokeSafe**

2. Adhesive: As recommended by jacket material manufacturer.
3. Color: Color-code jackets based on system. Color as selected by Architect.
4. Factory-fabricated fitting covers to match jacket if available; otherwise, field fabricate.

a. Shapes: 45- and 90-degree, short- and long-radius elbows, tees, valves, flanges, unions, reducers, end caps, soil-pipe hubs, traps, mechanical joints, and P-trap and supply covers for lavatories.

2.9 TAPES

A. ASJ Tape: White vapor-retarder tape matching factory-applied jacket with acrylic adhesive, complying with ASTM C 1136.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

    a. Avery Dennison Corporation, Specialty Tapes Division; **Fasson 0836**
    b. Compac Corporation; **104** and **105**
    c. Ideal Tape Co., Inc,; an American Biltrite company; **428 AWF ASJ**
    d. Knauf Insulation; EXPERT Tapes - **ASJ+ Tape**
    e. Venture Tape; **1540 CW Plus**, **1542 CW Plus**, and **1542 CW Plus/SQ**

2. Width: 3 inches.
3. Thickness: 11.5 mils.
4. Adhesion: 90 ounces force/inch in width.
5. Elongation: Two percent (2%).
6. Tensile Strength: 40 lbf/inch in width.
7. ASJ Tape Disks and Squares: Precut disks or squares of ASJ tape.

B. FSK Tape: Foil-face, vapor-retarder tape matching factory-applied jacket with acrylic adhesive; complying with ASTM C 1136.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

    a. Avery Dennison Corporation, Specialty Tapes Division; **Fasson 0827**
    b. Compac Corporation; **110** and **111**
    c. Ideal Tape Co., Inc,; an American Biltrite company; **491 AWF FSK**
    d. Knauf Insulation; EXPERT Tapes - **FSK Tape**
    e. Venture Tape; **1525 CW NT**, **1528 CW**, and **1528 CW/SQ**

2. Width: 3 inches.
3. Thickness: 6.5 mils.
4. Adhesion: 90 ounces force/inch in width.
5. Elongation: Two percent (2%).
6. Tensile Strength: 40 lbf/inch in width.
7. FSK Tape Disks and Squares: Precut disks or squares of FSK tape.

C. PVC Tape: White vapor-retarder tape matching field-applied PVC jacket with acrylic adhesive; suitable for indoor and outdoor applications.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

    a. Compac Corporation
    b. Ideal Tape Co., Inc,; an American Biltrite company; **370 White PVC tape**
    c. Venture Tape; **1506 CW NS**

2. Width: 2 inches.
3. Thickness: 6 mils.
4. Adhesion: 64 ounces force/inch in width.
5. Elongation: Five hundred percent (500%).
6. Tensile Strength: 18 lbf/inch in width.

D. Aluminum-Foil Tape: Vapor-retarder tape with acrylic adhesive.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Avery Dennison Corporation, Specialty Tapes Division; **Fasson 0800**
b. Compac Corporation
c. Ideal Tape Co., Inc,; an American Biltrite company; **488 AWF**
d. Knauf Insulation; EXPERT Tapes - **2 Mil Foil Tape**
e. Venture Tape; **3520 CW**

2. Width: 2 inches.
3. Thickness: 3.7 mils.
4. Adhesion: 100 ounces force/inch in width.
5. Elongation: Five percent (5%).
6. Tensile Strength: 34 lbf/inch in width.

2.10 SECUREMENTS

A. Bands:

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. ITW Insulation Systems; Illinois Tool Works, Inc; **Gerrard Strapping and Seals**
b. RPR Products, Inc; **Insul-Mate Strapping and Seals**

2. Stainless-Steel: ASTM A 167 or ASTM A 240, Type 316; 0.015-inch-thick, ¾-inch-wide with wing seal or closed seal.
3. Aluminum: ASTM B 209, Alloy 3003, 3005, 3105, or 5005; Temper H-14, 0.020-inch-thick, ¾-inch-wide with wing seal or closed seal.

B. Staples: Outward-clinching insulation staples, nominal ¾-inch-wide, stainless-steel or Monel.

C. Wire: 0.062-inch soft-annealed, stainless-steel.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. C & F Wire

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of insulation application.

1. Verify that systems to be insulated have been tested and are free of defects.
2. Verify that surfaces to be insulated are clean and dry.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Preparation: Clean and dry surfaces to receive insulation. Remove materials that will adversely affect insulation application.

B. Mix insulating cements with clean potable water; if insulating cements are to be in contact with stainless-steel surfaces, use demineralized water.

3.3 GENERAL INSTALLATION REQUIREMENTS

A. Install insulation materials, accessories, and finishes with smooth, straight, and even surfaces; free of voids throughout the length of piping including fittings, valves, and specialties.

B. Install insulation materials, forms, vapor barriers or retarders, jackets, and thicknesses required for each item of pipe system as specified in insulation system schedules.

C. Install accessories compatible with insulation materials and suitable for the service. Install accessories that do not corrode, soften, or otherwise attack insulation or jacket in either wet or dry state.

D. Install insulation with longitudinal seams at top and bottom of horizontal runs.

E. Install multiple layers of insulation with longitudinal and end seams staggered.

F. Do not weld brackets, clips, or other attachment devices to piping, fittings, and specialties.

G. Keep insulation materials dry during application and finishing.

H. Install insulation with tight longitudinal seams and end joints. Bond seams and joints with adhesive recommended by insulation material manufacturer.

I. Install insulation with least number of joints practical.

J. Where vapor barrier is indicated, seal joints, seams, and penetrations in insulation at hangers, supports, anchors, and other projections with vapor-barrier mastic.

1. Install insulation continuously through hangers and around anchor attachments.
2. For insulation application where vapor barriers are indicated, extend insulation on anchor legs from point of attachment to supported item to point of attachment to structure. Taper and seal ends at attachment to structure with vapor-barrier mastic.
3. Install insert materials and install insulation to tightly join the insert. Seal insulation to insulation inserts with adhesive or sealing compound recommended by insulation material manufacturer.
4. Cover inserts with jacket material matching adjacent pipe insulation. Install shields over jacket, arranged to protect jacket from tear or puncture by hanger, support, and shield.

K. Apply adhesives, mastics, and sealants at manufacturer's recommended coverage rate and wet and dry film thicknesses.

L. Install insulation with factory-applied jackets as follows:

1. Draw jacket tight and smooth.
2. Cover circumferential joints with 3-inch-wide strips of same material as insulation jacket. Secure strips with adhesive and outward clinching staples along both edges of strip, spaced 4 inches o.c.
3. Overlap jacket longitudinal seams at least 1½ inches. Install insulation with longitudinal seams at bottom of pipe. Clean and dry surface to receive self-sealing lap. Staple laps with outward clinching staples along edge at 2 inches o.c.

    a. For below-ambient services, apply vapor-barrier mastic over staples.

4. Cover joints and seams with tape, according to insulation material manufacturer's written instructions, to maintain vapor seal.
5. Where vapor barriers are indicated, apply vapor-barrier mastic on seams and joints and at ends adjacent to pipe flanges and fittings.

M. Cut insulation in a manner to avoid compressing insulation more than seventy-five percent (75%) of its nominal thickness.

N. Finish installation with systems at operating conditions. Repair joint separations and cracking due to thermal movement.

O. Repair damaged insulation facings by applying same facing material over damaged areas. Extend patches at least 4 inches beyond damaged areas. Adhere, staple, and seal patches similar to butt joints.

P. For above-ambient services, do not install insulation to the following:

1. Vibration-control devices.
2. Testing agency labels and stamps.
3. Nameplates and data plates.
4. Cleanouts.

3.4 PENETRATIONS

A. Insulation Installation at Roof Penetrations: Install insulation continuously through roof penetrations.

1. Seal penetrations with flashing sealant.
2. For applications requiring only indoor insulation, terminate insulation above roof surface and seal with joint sealant. For applications requiring indoor and outdoor insulation, install insulation for outdoor applications tightly joined to indoor insulation ends. Seal joint with joint sealant.
3. Extend jacket of outdoor insulation outside roof flashing at least 2 inches below top of roof flashing.
4. Seal jacket to roof flashing with flashing sealant.

B. Insulation Installation at Aboveground Exterior Wall Penetrations: Install insulation continuously through wall penetrations.

1. Seal penetrations with flashing sealant.
2. For applications requiring only indoor insulation, terminate insulation inside wall surface and seal with joint sealant. For applications requiring indoor and outdoor insulation, install insulation for outdoor applications tightly joined to indoor insulation ends. Seal joint with joint sealant.
3. Extend jacket of outdoor insulation outside wall flashing and overlap wall flashing at least 2 inches.
4. Seal jacket to wall flashing with flashing sealant.

C. Insulation Installation at Interior Wall and Partition Penetrations (That Are Not Fire Rated): Install insulation continuously through walls and partitions.

D. Insulation Installation at Fire-Rated Wall and Partition Penetrations: Install insulation continuously through penetrations of fire-rated walls and partitions.

1. Comply with requirements in Section 078413 "Penetration Firestopping" for firestopping and fire-resistive joint sealers.

E. Insulation Installation at Floor Penetrations:

1. Pipe: Install insulation continuously through floor penetrations.
2. Seal penetrations through fire-rated assemblies. Comply with requirements in Section 078413 "Penetration Firestopping."

3.5 GENERAL PIPE INSULATION INSTALLATION

A. Requirements in this article generally apply to all insulation materials except where more specific requirements are specified in various pipe insulation material installation articles.

B. Insulation Installation on Fittings, Valves, Strainers, Flanges, and Unions:

1. Install insulation over fittings, valves, strainers, flanges, unions, and other specialties with continuous thermal and vapor-retarder integrity unless otherwise indicated.
2. Insulate pipe elbows using preformed fitting insulation, mitered fittings made from same material and density as adjacent pipe insulation or PVC fitting cover manufacturer recommended flexible fiberglass inserts. Each piece shall be butted tightly against adjoining piece and bonded with adhesive. Fill joints, seams, voids, and irregular surfaces with insulating cement finished to a smooth, hard, and uniform contour that is uniform with adjoining pipe insulation.
3. Insulate tee fittings with preformed fitting insulation or sectional pipe insulation of same material and thickness as used for adjacent pipe. Cut sectional pipe insulation to fit. Butt each section closely to the next and hold in place with tie wire. Bond pieces with adhesive.
4. Insulate valves using preformed fitting insulation or sectional pipe insulation of same material, density, and thickness as used for adjacent pipe. Overlap adjoining pipe insulation by not less than two (2) times the thickness of pipe insulation, or one (1) pipe diameter, whichever is thicker. For valves, insulate up to and including the bonnets, valve stuffing-box studs, bolts, and nuts. Fill joints, seams, and irregular surfaces with insulating cement.
5. Insulate strainers using preformed fitting insulation or sectional pipe insulation of same material, density, and thickness as used for adjacent pipe. Overlap adjoining pipe insulation by not less than two (2) times the thickness of pipe insulation, or one (1) pipe diameter, whichever is thicker. Fill joints, seams, and irregular surfaces with insulating cement. Insulate strainers so strainer basket flange or plug can be easily removed and replaced without damaging the insulation and jacket. Provide a removable reusable insulation cover. For below-ambient services, provide a design that maintains vapor barrier.
6. Insulate flanges and unions using a section of oversized preformed pipe insulation. Overlap adjoining pipe insulation by not less than two (2) times the thickness of pipe insulation, or one (1) pipe diameter, whichever is thicker.
7. Cover segmented insulated surfaces with a layer of finishing cement and coat with a mastic. Install vapor-barrier mastic for below-ambient services and a breather mastic for above-ambient services. Reinforce the mastic with fabric-reinforcing mesh. Trowel the mastic to a smooth and well-shaped contour.
8. For services not specified to receive a field-applied jacket except for flexible elastomeric and polyolefin, install fitted PVC cover over elbows, tees, strainers, valves, flanges, and unions. Terminate ends with PVC end caps. Tape PVC covers to adjoining insulation facing using PVC tape.
9. Stencil or label the outside insulation jacket of each union with the word "union." Match size and color of pipe labels.

C. Insulate instrument connections for thermometers, pressure gages, pressure temperature taps, test connections, flow meters, sensors, switches, and transmitters on insulated pipes. Shape insulation at these connections by tapering it to and around the connection with insulating cement and finish with finishing cement, mastic, and flashing sealant.

D. Install removable insulation covers at locations indicated. Installation shall conform to the following:

1. Make removable flange and union insulation from sectional pipe insulation of same thickness as that on adjoining pipe. Install same insulation jacket as adjoining pipe insulation.
2. When flange and union covers are made from sectional pipe insulation, extend insulation from flanges or union long at least two (2) times the insulation thickness over adjacent pipe insulation on each side of flange or union. Secure flange cover in place with stainless-steel or aluminum bands. Select band material compatible with insulation and jacket.
3. Construct removable valve insulation covers in same manner as for flanges, except divide the two-part section on the vertical center line of valve body.
4. When covers are made from block insulation, make two (2) halves, each consisting of mitered blocks wired to stainless-steel fabric. Secure this wire frame, with its attached insulation, to flanges with tie wire. Extend insulation at least 2 inches over adjacent pipe insulation on each side of valve. Fill space between flange or union cover and pipe insulation with insulating cement. Finish cover assembly with insulating cement applied in two coats. After first coat is dry, apply and trowel second coat to a smooth finish.
5. Unless a PVC jacket is indicated in field-applied jacket schedules, finish exposed surfaces with a metal jacket.

3.6 INSTALLATION OF MINERAL-FIBER INSULATION

A. Insulation Installation on Straight Pipes and Tubes:

1. Secure each layer of preformed pipe insulation to pipe with wire or bands and tighten bands without deforming insulation materials.
2. Where vapor barriers are indicated, seal longitudinal seams, end joints, and protrusions with vapor-barrier mastic and joint sealant.
3. For insulation with factory-applied jackets on above-ambient surfaces, secure laps with outward clinched staples at 6 inches o.c.
4. For insulation with factory-applied jackets on below-ambient surfaces, do not staple longitudinal tabs. Instead, secure tabs with additional adhesive as recommended by insulation material manufacturer and seal with vapor-barrier mastic and flashing sealant.

B. Insulation Installation on Pipe Flanges:

1. Install preformed pipe insulation to outer diameter of pipe flange.
2. Make width of insulation section same as overall width of flange and bolts, plus twice the thickness of pipe insulation.
3. Fill voids between inner circumference of flange insulation and outer circumference of adjacent straight pipe segments with mineral-fiber blanket insulation.
4. Install jacket material with manufacturer's recommended adhesive, overlap seams at least 1 inch, and seal joints with flashing sealant.

C. Insulation Installation on Pipe Fittings and Elbows:

1. Install preformed sections of same material as straight segments of pipe insulation when available.

2. When preformed insulation elbows and fittings are not available, install mitered sections of pipe insulation, to a thickness equal to adjoining pipe insulation. Secure insulation materials with wire or bands.

D. Insulation Installation on Valves and Pipe Specialties:

1. Install preformed sections of same material as straight segments of pipe insulation when available.
2. When preformed sections are not available, install mitered sections of pipe insulation to valve body.
3. Arrange insulation to permit access to packing and to allow valve operation without disturbing insulation.
4. Install insulation to flanges as specified for flange insulation application.

3.7 FIELD-APPLIED JACKET INSTALLATION

A. Where glass-cloth jackets are indicated, install directly over bare insulation or insulation with factory-applied jackets.

1. Draw jacket smooth and tight to surface with 2-inch overlap at seams and joints.
2. Embed glass cloth between two (2) 0.062-inch-thick coats of lagging adhesive.
3. Completely encapsulate insulation with coating, leaving no exposed insulation.

B. Where FSK jackets are indicated, install as follows:

1. Draw jacket material smooth and tight.
2. Install lap or joint strips with same material as jacket.
3. Secure jacket to insulation with manufacturer's recommended adhesive.
4. Install jacket with 1½-inch laps at longitudinal seams and 3-inch-wide joint strips at end joints.
5. Seal openings, punctures, and breaks in vapor-retarder jackets and exposed insulation with vapor-barrier mastic.

C. Where PVC jackets are indicated, install with 1-inch overlap at longitudinal seams and end joints. Seal with manufacturer's recommended adhesive.

1. Apply two (2) continuous beads of adhesive to seams and joints, one bead under lap and the finish bead along seam and joint edge.

D. Where metal jackets are indicated, install with 2-inch overlap at longitudinal seams and end joints. Overlap longitudinal seams arranged to shed water. Seal end joints with weatherproof sealant recommended by insulation manufacturer. Secure jacket with stainless-steel bands 12 inches o.c. and at end joints.

3.8 FINISHES

A. Insulation with ASJ, Glass-Cloth, or Other Paintable Jacket Material: Paint jacket with paint system identified below.

1. Flat Acrylic Finish: Two (2) finish coats over a primer that is compatible with jacket material and finish coat paint. Add fungicidal agent to render fabric mildew proof.

a. Finish Coat Material: Interior, flat, latex-emulsion size.

B. Flexible Elastomeric Thermal Insulation: After adhesive has fully cured, apply two (2) coats of insulation manufacturer's recommended protective coating.

C. Color: As selected by Architect and Owner from manufacturer’s entire range. Vary first and second coats to allow visual inspection of the completed Work.

D. Do not field paint aluminum or stainless-steel jackets.

3.9 FIELD QUALITY CONTROL

A. Perform tests and inspections.

B. Tests and Inspections:

1. Inspect pipe, fittings, strainers, and valves, randomly selected by Architect, by removing field-applied jacket and insulation in layers in reverse order of their installation. Extent of inspection shall be limited to three (3) locations of straight pipe, three (3) locations of threaded fittings, three (3) locations of welded fittings, two (2) locations of threaded strainers, two (2) locations of welded strainers, three (3) locations of threaded valves, and three (3) locations of flanged valves for each pipe service defined in the "Piping Insulation Schedule, General" Article.

C. All insulation applications will be considered defective Work if sample inspection reveals noncompliance with requirements.

3.10 PIPING INSULATION SCHEDULE, GENERAL

A. Acceptable preformed pipe and tubular insulation materials and thicknesses are identified for each piping system and pipe size range. If more than one material is listed for a piping system, selection from materials listed is Contractor's option.

B. Items Not Insulated: Unless otherwise indicated, do not install insulation on the following:

1. Drainage piping located in crawl spaces.
2. Underground piping.
3. Chrome-plated pipes and fittings unless there is a potential for personnel injury.

3.11 INDOOR PIPING INSULATION SCHEDULE

A. Stormwater and Overflow:

1. All Pipe Sizes: Insulation shall be the following:

a. Mineral-Fiber, Preformed Pipe Insulation, Type I: 1-inch-thick.

B. Roof Drain and Overflow Drain Bodies:

1. All Pipe Sizes: Insulation shall be the following:

a. Mineral-Fiber, Preformed Pipe Insulation, Type I: 1-inch-thick.

3.12 INDOOR, FIELD-APPLIED JACKET SCHEDULE

A. Install jacket over insulation material. For insulation with factory-applied jacket, install the field-applied jacket over the factory-applied jacket. If more than one material is listed, selection from materials listed is Contractor's option.

B. Piping, Concealed:

1. None.

C. Piping, Exposed:

1. PVC: 20 mils thick.

END OF SECTION 220719

SECTION 221423 - STORM DRAINAGE PIPING SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Pipe, tube, and fittings.
2. Roof drains.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

1.4 QUALITY ASSURANCE

A. Drainage piping specialties shall bear label, stamp, or other markings of specified testing agency.

PART 2 - PRODUCTS

2.1 CAST-IRON PIPE AND FITTINGS

A. Pipe and Fittings: ASTM A 74, Service classes.

B. Gaskets: ASTM C 564, rubber.

C. Caulking Materials: ASTM B 29, pure lead and oakum or hemp fiber.

2.2 METAL ROOF DRAINS

A. Cast-Iron, Large-Sump, General-Purpose Roof Drains:

1. Basis-of-Design Product: Subject to compliance with requirements, provide Josam Company; **Series 21500** or comparable product by one (1) of the following:

   a. Smith, Jay R. Mfg. Co.
   b. Watts; a Watts Water Technologies company
   c. Zurn Industries, LLC

2. Standard: ASME A112.6.4, for general-purpose roof drains.
3. Body Material: Cast iron.
4. Dimension of Body: Nominal 15-inch diameter.
5. Combination Flashing Ring and Gravel Stop: Required.
6. Outlet: Bottom.
7. Extension Collars: Required.

8. Underdeck Clamp: Required.
9. Sump Receiver Plate: Required.
10. Dome Material: Cast iron.
11. Perforated Gravel Guard: Not required.
12. Vandal-Proof Dome: Required.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install piping at indicated slopes.

B. Install piping free of sags and bends.

C. Install fittings for changes in direction and branch connections.

D. Make changes in direction for storm drainage piping using appropriate branches, bends, and long-sweep bends. Do not change direction of flow more than 90 degrees. Use proper size of standard increasers and reducers if pipes of different sizes are connected. Reducing size of drainage piping in direction of flow is prohibited.

E. Install roof drains at low points of roof areas according to roof membrane manufacturer's written installation instructions.

1. Install flashing collar or flange of roof drain to prevent leakage between drain and adjoining roofing. Maintain integrity of waterproof membranes where penetrated.
2. Install expansion joints, if indicated, in roof drain outlets.
3. Position roof drains for easy access and maintenance.

3.2 PROTECTION

A. Protect drains during remainder of construction period to avoid clogging with dirt or debris and to prevent damage from traffic or construction work.

B. Place plugs in ends of uncompleted piping at end of each day or when work stops.

END OF SECTION 221423

PROJECT NAME:

PARTIAL ROOF REPLACEMENT AT:

SPRAGUE ELEMENTARY SCHOOL

1443 THOMASTON AVENUE
WATERBURY, CONNECTICUT 06704

PROJECT LOCATION:



DRAWING LIST

COVER SHEET

ARCHITECTURAL:

C1 CODE INFORMATION
A1 OVERALL ROOF PLAN
A2 ROOF DETAILS

ARCHITECT
SILVER PETRUCELLI & ASSOC.
3190 WHITNEY AVENUE, HAMDEN CT 06518
311 STATE STREET NEW LONDON, CT 06320
PHONE 203 230 9007 silverpetrucelli.com

SILVER PETRUCELLI + ASSOCIATES

3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

CONSTRUCTION DOCUMENT SUBMISSION 03/27/2023

ISSUE FOR BID: 10/23/2023

CODE INFORMATION

DATE OF ORIGINAL CONSTRUCTION: 1963
DATE OF ADDITION:

1. GROUP CLASSIFICATION (CHAPTER 3)
   (PRIMARY): E-EDUCATIONAL
   (INCIDENTAL): A3-ASSEMBLY

2. CONSTRUCTION TYPE (CHAPTER 6)
   MINIMUM TYPE REQUIRED: 2B
   ACTUAL TYPE PROVIDED (EXISTING): --
   (NEW): 2B

3. BUILDING HEIGHT (CHAPTER 5)
   ALLOWABLE HEIGHT (STORY/FEET): 3/75'-0"
   ACTUAL HEIGHT (STORY/FEET): 1/50'-0"
   (STORIES ABOVE GRADE): 2

4. BUILDING AREA (CHAPTER 5)

   A) BUILDING AREA (FIRST)

EXISTING CONSTRUCTION	41,424	sq.ft.
NEW CONSTRUCTION	0	sq.ft.
TOTAL FLOOR	41,424	sq.ft.

   B) BUILDING AREA (SECOND)

EXISTING CONSTRUCTION	41,424	sq.ft.
NEW CONSTRUCTION	0	sq.ft.
TOTAL FLOOR	41,424	sq.ft.

TOTAL (ALL FLOORS)	41,424	sq.ft.

5. AREA MODIFICATIONS TO TABLE 503 (FOR EACH SEPARATE BUILDING AS DEFINED BY FIRE WALLS AND/OR EXTERIOR WALLS)
   NA

6. CASE 1 - SINGLE OCCUPANCY OR NONSEPARATED USES (302.3.1)
   (ALLOWABLE AREA 506.4)
   NA

7. CASE 2 - MIXED OCCUPANCY SEPARATED USES (302.3.2)
   (ALLOWABLE AREA 506.4)
   NA

8. FIRE-RESISTANCE RATED REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601, SEE CODE PLANS FOR SPECIFIC DESIGNATIONS)

1 STRUCTURAL FRAME: INCLUDING COLUMNS, GIRDERS, TRUSSES	0	Hr(s)
2 BEARING WALLS: EXTERIOR (TABLE 602)	0/1	Hr(s)
INTERIOR	0	Hr(s)
3 NONBEARING WALLS & PARTITIONS EXTERIOR (TABLE 602)	0/1	Hr(s)
4 NONBEARING WALLS & PARTITIONS INTERIOR	0	Hr(s)
5 FLOOR CONSTRUCTION (INCLUDING SUPPORTING BEAMS & JOISTS)	0	Hr(s)
6 ROOF CONSTRUCTION (INCLUDING SUPPORTING BEAMS & JOISTS)	0	Hr(s)

9. OCCUPANCY LOAD

DESIGN TOTAL FOR BASEMENT	NA
TOTAL EXIT CAPACITY FOR BASEMENT	NA
DESIGN TOTAL FOR FIRST FLOOR	NA
TOTAL EXIT CAPACITY FOR FIRST FLOOR	NA
DESIGN TOTAL FOR BUILDING	NA
TOTAL EXIT CAPACITY FOR BUILDING	NA

10. MODIFICATIONS

	APPROVED	NOT APPROVED

11. ACCESSIBLE BUILDING: X DESIGNATED; NON DESIGNATED

12. MINIMUM PLUMBING FIXTURE COUNT (I.P.C. CHAPTER 4)
    FOR EACH TYPE OF OCCUPANCY PER ENTIRE FACILITY

GROUP "A3" OCCUPANCY
(DESIGN LOAD = NA)

	REQUIRED	PROVIDED
W/C MALE	NA	NA
W/C FEMALE	NA	NA
LAVS	NA	NA
D/F	NA	NA
W/C UNISEX	NA	NA
LAVS UNISEX	NA	NA

GROUP "E" OCCUPANCY,
(DESIGN LOAD = NA)

W/C	NA	NA
LAVS	NA	NA
D/F	NA	NA

(TOTAL DESIGN LOAD FOR ENTIRE FACILITY = NA)

	YES	NO
13. ENTIRE BUILDINGS SPRINKLERED		X
14. THRESHOLD BUILDING CONDITIONS		X

15. CODES TO WHICH THIS PROJECT WAS DESIGNED

State Building Code	2021 IBC CTSBC/2022 AMEND.
State Mechanical Code	2017 ICC
State Plumbing Code	2015 IPC
State Energy Conservation Code	2015 IECC
State Electrical Code	2020 NFPA 70
State Health Code	MOST CURRENT
OSHA	MOST CURRENT
Section 504	CURRENT
ADA	MOST CURRENT
ANSI 117.1	MOST CURRENT

16. BUILDING AREAS FOR GRANT CALCULATION (ENTIRE FACILITY)

(MEASURED TO INSIDE FACE OF EXTERIOR WALLS)

EXISTING UNRENOVATED CONSTRUCTION	0	SQ.FT.
EXISTING RENOVATED CONSTRUCTION	0	SQ.FT.
EXISTING BEING DEMOLISHED	0	SQ.FT.
TOTAL EXISTING CONSTRUCTION	41,424	SQ.FT.
TOTAL NEW CONSTRUCTION	0	SQ.FT.
TOTAL FACILITY	41,424	SQ.FT.

OPEN AREAS (NOT INCLUDED IN TOTAL FACILITY)

NA	NA	SQ.FT.

17. TOTAL CONSTRUCTED BUILDING AREA (OUTSIDE FACE OF EXTERIOR WALLS INCLUDING OPEN AREAS ABOVE): NA SQ.FT.

FIRE SAFETY CODE DATA:

1. CLASSIFICATION OF OCCUPANCY: EDUCATIONAL/ASSEMBLY
2. MINIMUM CONSTRUCTION REQUIRED: 2B
   ACTUAL CONSTRUCTION PROVIDED: 2A
3. NOTIFICATION / ALARMS (CFSC 2005, NFPA 72, NATIONAL FIRE ALARM CODE 2002) YES X NO
4. DETECTION (CFSC 2005, NFPA 72, NATIONAL FIRE ALARM CODE 2002) YES X NO
5. EXTINGUISHMENT REQUIREMENTS (NFPA 13, 2002) YES X NO

MEANS OF EGRESS

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT IBC TABLE 1004.1.2

USE	FLOOR AREA IN S.F. PER OCCUPANT
1. CLASSROOMS	20 S.F. NET
2. SHOPS & VOCATIONAL	50 S.F. NET
3. ASSEMBLY	
WITHOUT FIXED SEATS	7 S.F. NET
TABLES AND CHAIRS	15 S.F. NET
4. PLATFORMS	15 S.F. NET
5. LIBRARY	
READING ROOMS	50 S.F. NET
STACK AREA	100 S.F. GROSS
6. LOCKER ROOMS	50 S.F. GROSS
7. MECHANICAL AREAS	300 S.F. GROSS
8. STORAGE	300 S.F. GROSS
9. BUSINESS AREAS	100 S.F. GROSS
10. Courtyards	15 S.F. NET

MAXIMUM LENGTH OF EXIT TRAVEL
1. I.B.C. TABLE 1015.1: 250 feet

SYMBOL LEGEND

- (X / XX) - PLAN SECTION DETAIL OR ELEVATION - SHEET NUMBER
- SL - INDICATES SLOPE DIRECTION OF TAPERED INSULATION AT ¼" PER FOOT
- SL - TAPERED INSULATION CRICKET SLOPED @ ¼" PER FOOT
- @X - INDICATES SLOPE DIRECTION & INDICATES EXISTING ROOF PITCH
- NIC. - NOT IN CONTRACT SCOPE
- WALKWAY PADS - SEE CONSTRUCTION NOTE #2
- ERD. - EXISTING ROOF DRAIN TO BE REMOVED - SEE DEMOLITION NOTES
- NRD. - NEW ROOF DRAIN TO BE INSTALLED - SEE DETAIL A/A2
- OSC. - EMERGENCY OVERFLOW SCUPPER - SEE DETAIL B/A2
- MG. - METAL GUTTER - SEE DETAIL C/A2
- CB. - METAL COLLECTION BOX - SEE DETAIL D/A2
- DS. - METAL DOWNSPOUT - SEE CONSTRUCTION NOTE #3
- VS. - EXISTING VENT STACK - SEE DETAIL F/A2
- FU. - EXISTING FAN UNIT - SEE DETAIL G/A2
- RH. - ROOF HATCH - SEE DETAIL H/A2
- EF. - EXISTING LIGHT FIXTURE - SEE CONSTRUCTION NOTE #4

GENERAL NOTES

1. ALL FLAT ROOFS TO RECEIVE ¼" PER FOOT TAPERED RIGID INSULATION MINIMUM UNLESS OTHERWISE NOTED.
2. FIELD VERIFY ALL DIMENSIONS & PERFORM TEST CUTS AT EACH ROOF PRIOR TO THE BID.
3. ALL MATERIALS ARE NEW UNLESS OTHERWISE NOTED "EXISTING".
4. ALL WOOD BLOCKING, PLYWOOD & NAILERS TO BE PRESSURE TREATED. (P.T.)
5. ALL WOOD BLOCKING INDICATED IN DETAILS ARE TO BE ANCHORED TO THE EXISTING STRUCTURE.
6. ALL MEMBRANE FLASHING INDICATED IS TO EXTEND A MINIMUM OF 8". (VERTICAL OR HORIZONTAL)
7. CONTRACTOR IS TO SURVEY THE EXISTING ROOF DECKS w/A LEVEL (AFTER DEMOLITION) TO VERIFY THE SLOPES INDICATED ON PLAN ARE ACCURATE. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY ADDITIONAL ROOFING OPERATIONS.
8. CONTRACTOR IS TO INSPECT THE UNDERSIDE OF ALL ROOF DECKS PRIOR TO ROOFING OPERATIONS TO ENSURE THAT NO INTERIOR MATERIALS, EQUIPMENT, FINISHES OR OBJECTS WILL BE PIERCED OR DAMAGED.
9. CONTRACTOR ASSUMES ALL RESPONSIBILITY DURING PROJECT & WILL REPLACE ANY & ALL DAMAGED EQUIPMENT w/NO ADDITIONAL COST TO OWNER.
10. SITE AREAS DISTURBED SHALL BE CLEANED & RE-LEVELED, w/LAWN AREAS MAGNETICALLY RAKED TO REMOVE ANY METAL DEBRIS & RE-SEEDED AS REQUIRED TO MATCH ADJACENT CONDITIONS.
11. CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR CLEAN UP OF ROOFING MATERIALS & DEBRIS THAT PENETRATES THE INTERIOR ENVELOPE OF THE BUILDING w/NO ADDITIONAL COST TO THE OWNER.
12. SNAKE/CLEAN OUT ALL EXISTING VERTICAL & HORIZONTAL LEADERS OUT TO NEAREST MANHOLE OUTSIDE OF BUILDING.
13. ALL CRICKETS ARE TO BE SLOPED @ A MINIMUM OF ¼" PER FOOT & COORDINATE CRICKETS AROUND EXIST. HVAC UNITS AS REQUIRED TO AVOID PONDING.
14. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL & RE-INSTALLATION OF ALL HVAC UNITS INCLUDING ANY ELECTRICAL OR MECHANICAL CONNECTIONS. THIS MAY INCLUDE THE EXTENSION OF EXISTING ELECTRICAL & DUCTWORK SYSTEMS TO ACCOMMODATE NEW MECHANICAL UNIT CURBING & NEW ROOFING SYSTEM.
15. SNAKE/CLEAN OUT ALL EXISTING VENT STACKS BEFORE THE INSTALLATION OF METAL SLEEVE.
16. ALL DRAIN PIPING IS INSULATED ABOVE THE CEILINGS. THE EXACT ROUTE WILL BE DETERMINED IN THE FIELD. MAKE MINOR ADJUSTMENT IN THE ROUTE AT NO ADDITIONAL COST TO OWNER.
17. NEW ROOF INSULATION TO BE A MINIMUM OF R-30 AT ALL NEW ROOF DRAINS AND/OR THE LOW POINTS OF THE ROOF AREAS.
18. ALL ANTENNAE, CONDUITS & ANY OTHER OBJECTS TO REMAIN AFFECTED BY SCOPE OF WORK, TO BE REMOVED & REINSTALLED.

DEMOLITION NOTES (X →)

1. REMOVE EXISTING FLAT METAL ROOFING SYSTEM.
2. REMOVE ALL PERIMETER METAL FLASHING WITHIN SCOPE OF WORK.
3. REMOVE EXISTING ROOF DRAINS & SUMP.

CONSTRUCTION NOTES (X →)

1. CONTRACTOR TO PROVIDE A SPECIFIED QUANTITY OF EXISTING DECK REPAIR & REPLACEMENT. SEE PROJECT MANUAL.
2. WALKWAY PADS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATION. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION. COORDINATE & FINALIZE EXACT ROUTE w/OWNER & ARCHITECT.
3. NEW METAL DOWNSPOUT. PLACE NEW CONCRETE SPLASH BLOCK AT WATER DISCHARGE. SEE PROJECT MANUAL.
4. EXISTING ELECTRICAL FIXTURE TO BE TEMPORARILY REMOVED TO ALLOW VERTICAL FLASHING TO BE INSTALLED & REINSTALLED IN EXISTING LOCATION.

ROOF AREAS

ROOF "A"	2,697	SF.	ROOF "G"	548	SF.
ROOF "B"	555	SF.	ROOF "H"	9,438	SF.
ROOF "B-1"	644	SF.	ROOF "J"	1,190	SF.
ROOF "C"	806	SF.	ROOF "K"	10,072	SF.
ROOF "D"	788	SF.	ROOF "L"	900	SF.
ROOF "E"	10,283	SF.	ROOF "M"	2,303	SF.
ROOF "F"	776	SF.			

TOTAL ROOF AREAS: 41,000 SF.
THIS AREA IS APPROXIMATE- V.I.F.
IECC CODE REQUIREMENT R-VALUE MIN. R-30
CONNECTICUT ZONE 2B
CBSC REQUIREMENT : R-30 -U.0333

ROOF ASSEMBLY

OUTSIDE AIR	0.17
ROOF MEMBRANE	0.33
COVERBOARD	2.20
5" POLYISO INSUL.	29.7
EXISTING DECK	1.23
INSIDE AIR	0.61
R-VALUE TOTAL	34.24

CODE INFORMATION

USE GROUP : B
CONSTRUCTION CLASS: 2B
RISK CATEGORY #3
ULTIMATE DESIGN WIND SPEED: 135 MPH
NOMINAL DESIGN WIND SPEED: 105 MPH

FACTORY MUTUAL ENGINEERING & RESEARCH CORPORATION (FM): ROOF ASSEMBLY CLASSIFICATION OF NON-COMBUSTIBLE CONSTRUCTION, WIND UPLIFT REQUIREMENT OF I-60 FOR FIELD, I-75 FOR PERIMETER AND I-110 FOR CORNERS, IN ACCORDANCE WITH FM PROPERTY LOSS PREVENTION DATA SHEETS 1-28.

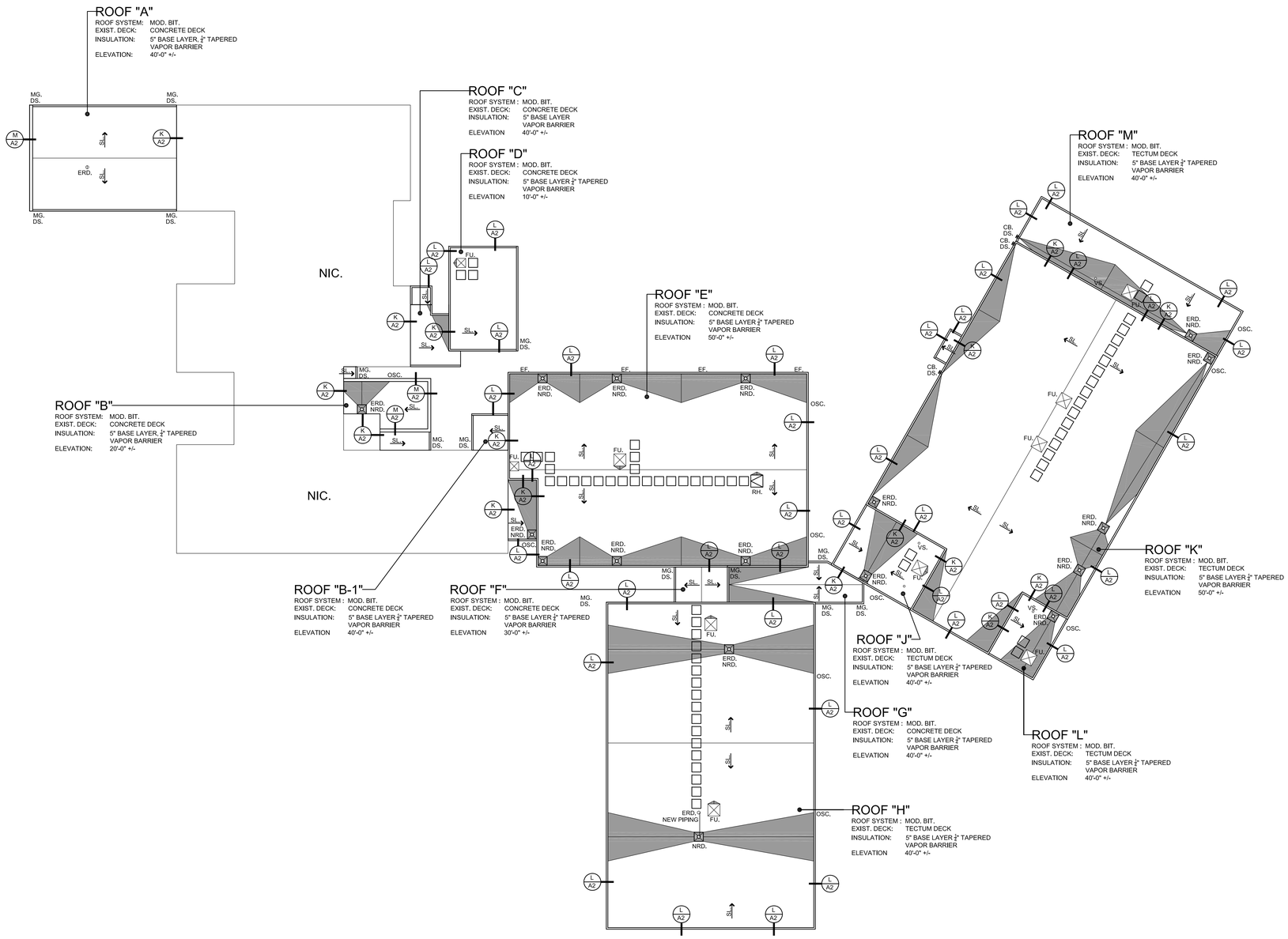
Project Title:
PARTIAL ROOF REPLACEMENT AT:
SPRAGUE ELEMENTARY SCHOOL
1443 THOMASTON AVENUE
WATERBURY, CONNECTICUT 06704

SILVER PETRUCELLI + ASSOCIATES
3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	-	-	

Drawing Title:
CODE INFORMATION
STATE PROJECT 151-0308 RR

Date: 03/27/2023
Scale: NONE
Drawn By: K.LINSLEY
Project Number: 22.059
Drawing Number: C1



SYMBOL LEGEND

- X / XX - PLAN SECTION DETAIL OR ELEVATION - SHEET NUMBER
- SL - INDICATES SLOPE DIRECTION OF TAPERED INSULATION AT ¼" PER FOOT
- SL - TAPERED INSULATION CRICKET SLOPED @ ¼" PER FOOT
- @X - INDICATES SLOPE DIRECTION & INDICATES EXISTING ROOF PITCH
- NIC. - NOT IN CONTRACT SCOPE
- WALKWAY PADS - SEE CONSTRUCTION NOTE #2
- ERD. - EXISTING ROOF DRAIN TO BE REMOVED - SEE DEMOLITION NOTES
- NRD. - NEW ROOF DRAIN TO BE INSTALLED - SEE DETAIL A/A2
- OSC. - EMERGENCY OVERFLOW SCUPPER - SEE DETAIL B/A2
- MG. - METAL GUTTER - SEE DETAIL C/A2
- CB. - METAL COLLECTION BOX - SEE DETAIL D/A2
- DS. - METAL DOWNSPOUT - SEE CONSTRUCTION NOTE #3
- VS. - EXISTING VENT STACK - SEE DETAIL F/A2
- FU. - EXISTING FAN UNIT - SEE DETAIL G/A2
- RH. - ROOF HATCH - SEE DETAIL H/A2
- EF. - EXISTING LIGHT FIXTURE - SEE CONSTRUCTION NOTE #4

GENERAL NOTES

1. ALL FLAT ROOFS TO RECEIVE ¼" PER FOOT TAPERED RIGID INSULATION MINIMUM UNLESS OTHERWISE NOTED.
2. FIELD VERIFY ALL DIMENSIONS & PERFORM TEST CUTS AT EACH ROOF PRIOR TO THE BID.
3. ALL MATERIALS ARE NEW UNLESS OTHERWISE NOTED "EXISTING".
4. ALL WOOD BLOCKING, PLYWOOD & NAILERS TO BE PRESSURE TREATED. (P.T.)
5. ALL WOOD BLOCKING INDICATED IN DETAILS ARE TO BE ANCHORED TO THE EXISTING STRUCTURE.
6. ALL MEMBRANE FLASHING INDICATED IS TO EXTEND A MINIMUM OF 8", (VERTICAL OR HORIZONTAL)
7. CONTRACTOR IS TO SURVEY THE EXISTING ROOF DECKS w/A LEVEL (AFTER DEMOLITION) TO VERIFY THE SLOPES INDICATED ON PLAN ARE ACCURATE. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY ADDITIONAL ROOFING OPERATIONS.
8. CONTRACTOR IS TO INSPECT THE UNDERSIDE OF ALL ROOF DECKS PRIOR TO ROOFING OPERATIONS TO ENSURE THAT NO INTERIOR MATERIALS, EQUIPMENT, FINISHES OR OBJECTS WILL BE PIERCED OR DAMAGED.
9. CONTRACTOR ASSUMES ALL RESPONSIBILITY DURING PROJECT & WILL REPLACE ANY & ALL DAMAGED EQUIPMENT w/NO ADDITIONAL COST TO OWNER.
10. SITE AREAS DISTURBED SHALL BE CLEANED & RE-LEVELED, w/LAWN AREAS MAGNETICALLY RAKED TO REMOVE ANY METAL DEBRIS & RE-SEEDED AS REQUIRED TO MATCH ADJACENT CONDITIONS.
11. CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR CLEAN UP OF ROOFING MATERIALS & DEBRIS THAT PENETRATES THE INTERIOR ENVELOPE OF THE BUILDING w/NO ADDITIONAL COST TO THE OWNER.
12. SNAKE/CLEAN OUT ALL EXISTING VERTICAL & HORIZONTAL LEADERS OUT TO NEAREST MANHOLE OUTSIDE OF BUILDING.
13. ALL CRICKETS ARE TO BE SLOPED @ A MINIMUM OF ¼" PER FOOT & COORDINATE CRICKETS AROUND EXIST. HVAC UNITS AS REQUIRED TO AVOID PONDING.
14. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL & RE-INSTALLATION OF ALL HVAC UNITS INCLUDING ANY ELECTRICAL OR MECHANICAL CONNECTIONS. THIS MAY INCLUDE THE EXTENSION OF EXISTING ELECTRICAL & DUCTWORK SYSTEMS TO ACCOMMODATE NEW MECHANICAL UNIT CURBING & NEW ROOFING SYSTEM.
15. SNAKE/CLEAN OUT ALL EXISTING VENT STACKS BEFORE THE INSTALLATION OF METAL SLEEVE.
16. ALL DRAIN PIPING IS INSULATED ABOVE THE CEILINGS. THE EXACT ROUTE WILL BE DETERMINED IN THE FIELD. MAKE MINOR ADJUSTMENT IN THE ROUTE AT NO ADDITIONAL COST TO OWNER.
17. NEW ROOF INSULATION TO BE A MINIMUM OF R-30 AT ALL NEW ROOF DRAINS AND/OR THE LOW POINTS OF THE ROOF AREAS.
18. ALL ANTENNAE, CONDUITS & ANY OTHER OBJECTS TO REMAIN AFFECTED BY SCOPE OF WORK, TO BE REMOVED & REINSTALLED.

DEMOLITION NOTES (X)

1. REMOVE EXISTING FLAT METAL ROOFING SYSTEM.
2. REMOVE ALL PERIMETER METAL FLASHING WITHIN SCOPE OF WORK.
3. REMOVE EXISTING ROOF DRAINS & SUMP.

CONSTRUCTION NOTES (X)

1. CONTRACTOR TO PROVIDE A SPECIFIED QUANTITY OF EXISTING DECK REPAIR & REPLACEMENT. SEE PROJECT MANUAL.
2. WALKWAY PADS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATION. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION. COORDINATE & FINALIZE EXACT ROUTE w/OWNER & ARCHITECT.
3. NEW METAL DOWNSPOUT, PLACE NEW CONCRETE SPLASH BLOCK AT WATER DISCHARGE. SEE PROJECT MANUAL.
4. EXISTING ELECTRICAL FIXTURE TO BE TEMPORARILY REMOVED TO ALLOW VERTICAL FLASHING TO BE INSTALLED & REINSTALLED IN EXISTING LOCATION.

ROOF AREAS

ROOF "A"	2,697	SF.	ROOF "G"	548	SF.
ROOF "B"	555	SF.	ROOF "H"	9,438	SF.
ROOF "B-1"	644	SF.	ROOF "J"	1,190	SF.
ROOF "C"	806	SF.	ROOF "K"	10,072	SF.
ROOF "D"	788	SF.	ROOF "L"	900	SF.
ROOF "E"	10,283	SF.	ROOF "M"	2,303	SF.
ROOF "F"	776	SF.			

TOTAL ROOF AREAS: 41,000 SF.
THIS AREA IS APPROXIMATE- V.I.F.
IECC CODE REQUIREMENT R-VALUE MIN, R-30
CONNECTICUT ZONE 2B
CBSC REQUIREMENT : R-30 -U.0333

ROOF ASSEMBLY

OUTSIDE AIR	0.17
ROOF MEMBRANE	0.33
COVERBOARD	2.20
5" POLYISO INSUL.	29.7
EXISTING DECK	1.23
INSIDE AIR	0.61
R-VALUE TOTAL	34.24

CODE INFORMATION

USE GROUP : B
CONSTRUCTION CLASS: 2B
RISK CATEGORY #3
ULTIMATE DESIGN WIND SPEED: 135 MPH
NOMINAL DESIGN WIND SPEED: 105 MPH

FACTORY MUTUAL ENGINEERING & RESEARCH CORPORATION (FM); ROOF ASSEMBLY CLASSIFICATION OF NON-COMBUSTIBLE CONSTRUCTION, WIND UPLIFT REQUIREMENT OF I-60 FOR FIELD, I-75 FOR PERIMETER AND I-110 FOR CORNERS, IN ACCORDANCE WITH FM PROPERTY LOSS PREVENTION DATA SHEETS 1-28.

Project Title:

PARTIAL ROOF REPLACEMENT AT:

SPRAGUE ELEMENTARY SCHOOL

1443 THOMASTON AVENUE
WATERBURY, CONNECTICUT 06704

SILVER PETRUCELLI + ASSOCIATES

3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	-	-	

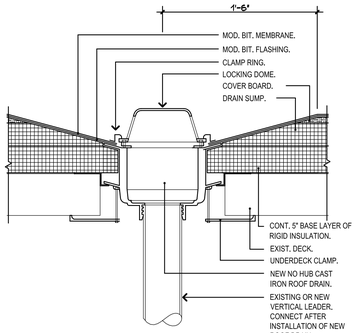
Drawing Title:

OVERALL ROOF PLAN

STATE PROJECT 151-0308 RR

Date: 03/27/2023
Scale: 1/16"=1'-0"
Drawn By: K.LINSLEY
Project Number: 22.059

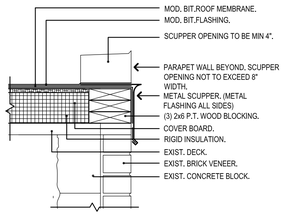
Drawing Number: A1



ROOF DRAIN DETAIL

SCALE: 1 1/2" = 1'-0"

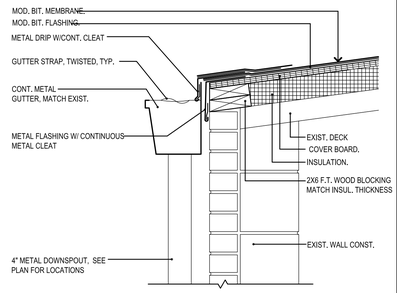
A / A2



EMERGENCY OVERFLOW SCUPPER

SCALE: 1 1/2" = 1'-0"

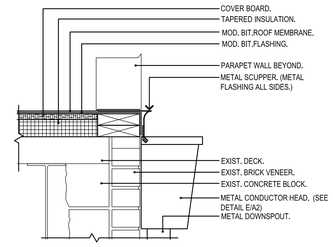
B / A2



GUTTER DETAIL

SCALE: 1 1/2" = 1'-0"

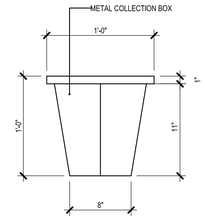
C / A2



COLLECTION BOX DETAIL

SCALE: 1 1/2" = 1'-0"

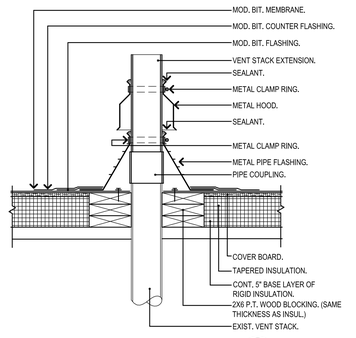
D / A2



CONDUCTOR HEAD DETAIL

SCALE: 1 1/2" = 1'-0"

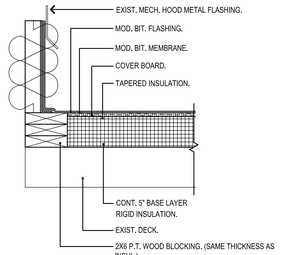
E / A2



VENT STACK DETAIL

SCALE: 1 1/2" = 1'-0"

F / A2

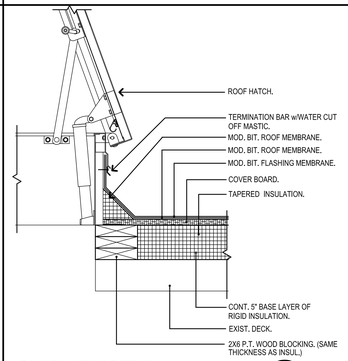


NOTE:
EXIST, MECHANICAL UNIT TO BE REMOVED & REINSTALLED AS REQUIRED FOR NEW CURB & ROOFING OPERATIONS. EXTEND ALL ELECTRICAL WIRING & DUCTWORK AS REQUIRED.

ROOF EXHAUST FAN DETAIL

SCALE: 1 1/2" = 1'-0"

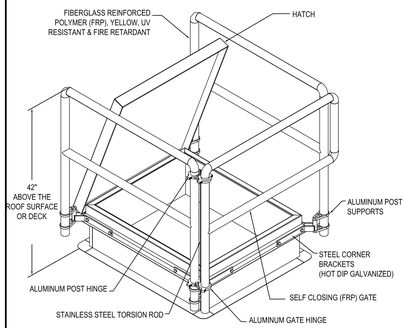
G / A2



ROOF HATCH DETAIL

SCALE: 1 1/2" = 1'-0"

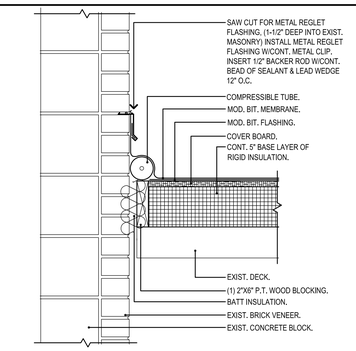
H / A2



ROOF HATCH SAFETY DETAIL

SCALE: 1 1/2" = 1'-0"

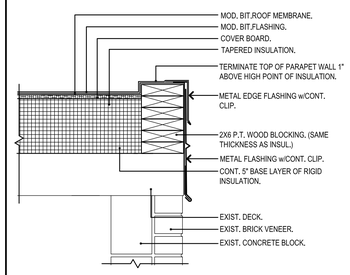
J / A2



REGLET DETAIL

SCALE: 1 1/2" = 1'-0"

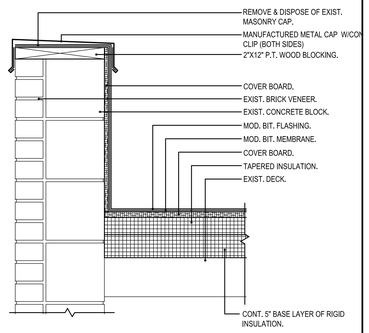
K / A2



EDGE DETAIL

SCALE: 1 1/2" = 1'-0"

L / A2



PARAPET WALL DETAIL

SCALE: 1 1/2" = 1'-0"

M / A2

Project Title:

PARTIAL ROOF REPLACEMENT AT:

SPRAGUE ELEMENTARY SCHOOL

1443 THOMASTON AVENUE
WATERBURY, CONNECTICUT 06704

SILVER PETRUCELLI + ASSOCIATES

3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	-	-	

Drawing Title:

ROOF DETAILS

STATE PROJECT 151-0308 RR

Date: 03/27/2023
Scale: 1-1/2"=1'-0"
Drawn By: K.LINSLEY
Project Number: 22.059

Drawing Number: A2

MAUREEN McCAULEY
ASSISTANT DIRECTOR OF PURCHASING



OFFICE OF THE DIRECTOR OF PURCHASING
THE CITY OF WATERBURY
CONNECTICUT

ADDENDUM #1

January 26, 2024

RFP 7932 Sprague Elementary School Roof Replacement; Project 151-0308RR

All proposals of the above captioned project are hereby notified that the Contract Documents for the above referenced project are amended as noted in this Addendum No. 1. This Addendum shall be part of the Contract Documents for the above referenced project as provided in the Request for Proposal.

Receipt of this Addendum shall be acknowledged in writing on the form included in Attachment C of the RFP. Failure to do so may subject Proposer to disqualification.

The Contract Documents are hereby amended as follows:

General Information:
The Contractor must obtain their own required building permits at no additional charge to the Owner.

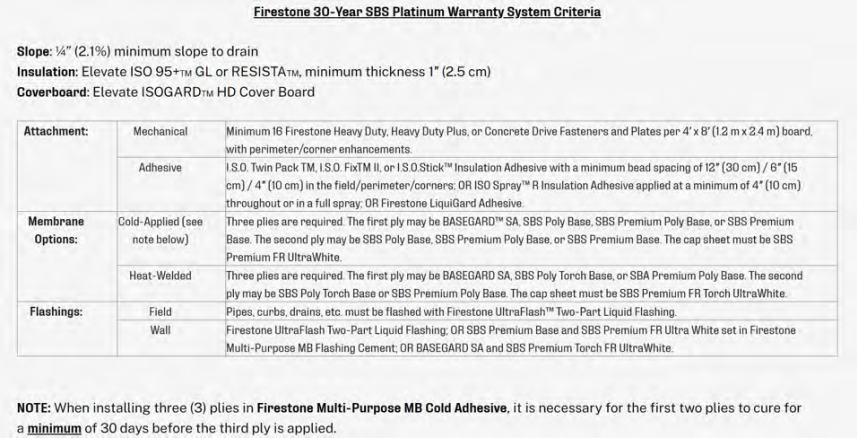
Please refer to the questions and answers below.

Question: Is there an estimated mobilization date?
Answer: The first day of summer vacation.

Question: There is a discrepancy between the Insurance Requirements listed in Attachment D versus the Sample Contract, which is correct?
Answer: Please see attached updated Attachment D, which is correct and supersedes any previously published insurance requirements.

235 GRAND STREET • WATERBURY, CONNECTICUT 06702 • PHONE: (203) 574-6749 • FAX: (203) 597-3437

Question: Membrane MFG require 2 base sheets and a cap to achieve a 30yr warranty. How should we price?



Firestone 30-Year SBS Platinum Warranty System Criteria

Slope: ¼" (2.1%) minimum slope to drain
Insulation: Elevate ISO 95+™ GL or RESISTA™, minimum thickness 1" (2.5 cm)
Coverboard: Elevate ISOGARD™ HD Cover Board

Attachment:	Mechanical	Minimum 16 Firestone Heavy Duty, Heavy Duty Plus, or Concrete Drive Fasteners and Plates per 4' x 8' (1.2 m x 2.4 m) board, with perimeter/corner enhancements.
	Adhesive	I.S.O. Twin Pack TM, I.S.O. FixTM II, or I.S.O.Stick™ Insulation Adhesive with a minimum bead spacing of 12" (30 cm) / 6" (15 cm) / 4" (10 cm) in the field/perimeter/corners; OR ISO Spray™ R Insulation Adhesive applied at a minimum of 4" (10 cm) throughout or in a full spray; OR Firestone LiquiGard Adhesive.
Membrane Options:	Cold-Applied (see note below)	Three plies are required. The first ply may be BASEGARD™ SA, SBS Poly Base, SBS Premium Poly Base, or SBS Premium Base. The second ply may be SBS Poly Base, SBS Premium Poly Base, or SBS Premium Base. The cap sheet must be SBS Premium FR UltraWhite.
	Heat-Welded	Three plies are required. The first ply may be BASEGARD SA, SBS Poly Torch Base, or SBA Premium Poly Base. The second ply may be SBS Poly Torch Base or SBS Premium Poly Base. The cap sheet must be SBS Premium FR Torch UltraWhite.
Flashings:	Field	Pipes, curbs, drains, etc. must be flashed with Firestone UltraFlash™ Two-Part Liquid Flashing.
	Wall	Firestone UltraFlash Two-Part Liquid Flashing; OR SBS Premium Base and SBS Premium FR Ultra White set in Firestone Multi-Purpose MB Flashing Cement; OR BASEGARD SA and SBS Premium Torch FR UltraWhite.

NOTE: When installing three (3) plies in **Firestone Multi-Purpose MB Cold Adhesive**, it is necessary for the first two plies to cure for a **minimum** of 30 days before the third ply is applied.

Answer: We require a 30 year warranty, the number of sheets is at the direction of the manufacturer.

NOTE: Each Proposal over $50,000.00 submitted shall be accompanied by a Proposal Security (a Certified Check or Bid Bond) in the amount of ten (10) percent of the Total Proposal Price.

END OF ADDENDUM 1

Thank you.

Maureen McCauley

Assistant Director of Purchasing – City of Waterbury

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Sprague Elementary School Roof Replacement
RFP# 7932
Project 151-0308RR

Attachment D

Insurance Requirements – Corrected 1/26/2024

Contractor/Vendor shall agree to maintain in force at all times during the contract the following minimum coverages and shall name the City of Waterbury and the Waterbury Board of Education as Additional Insured on a primary and non-contributory basis to all policies, except Workers Compensation. All policies should also include a Waiver of Subrogation. Insurance shall be written with Carriers approved in the State of Connecticut and with a minimum AM Best's rating of "A"VIII.

If any policy is written on a "Claims Made" basis, the policy must be continually renewed for a minimum of two (2) years from the completion date of this contract. If the policy is replaced and/or the retroactive date is changed, then the expiring policy must be endorsed to extend the reporting period for claims for the policy in effect during the contract for two (2) years from the completion date.

Original, completed Certificates of Insurance must be presented to the City of Waterbury and the Waterbury Board of Education prior to contract issuance. Contractor/Vendor agrees to provide replacement/renewal certificates at least 30 days prior to the expiration date of the policies. Should any of the above described policies be cancelled, limits reduced or coverage altered, 30 days written notice must be given to the City of Waterbury and the Waterbury Board of Education.

General Liability:	**$1,000,000 each Occurrence** **$2,000,000 General Aggregate** **$2,000,000 Products/ Completed Operations Aggregate**
Auto Liability:	**$1,000,000 Combined Single Limit each Accident** **Any Auto, All Owned and Hired Autos**
Workers Compensation:	**WC Statutory Limits** **Employer Liability (EL)** **$1,000,000 EL each Accident** **$1,000,000 EL Disease each Employee** **$1,000,000 EL Disease Policy Limits**
Excess/Umbrella Liability:	**$4,000,000 each Occurrence** **$4,000,000 Aggregate**

Wording for Additional Insured Endorsement and Waiver of Subrogation:

The City Waterbury and its Board of Education is listed as an Additional Insured on a primary and non-contributory basis on all policies except Workers Compensation. All policies shall include a Waiver of Subrogation.

MAUREEN McCAULEY
ASSISTANT DIRECTOR OF PURCHASING



OFFICE OF THE DIRECTOR OF PURCHASING
THE CITY OF WATERBURY
CONNECTICUT

ADDENDUM #2

February 1, 2024

RFP 7932 Sprague Elementary School Roof Replacement; Project 151-0308RR

All proposals of the above captioned project are hereby notified that the Contract Documents for the above referenced project are amended as noted in this Addendum No. 2. This Addendum shall be part of the Contract Documents for the above referenced project as provided in the Request for Proposal.

Receipt of this Addendum shall be acknowledged in writing on the form included in Attachment C of the RFP. Failure to do so may subject Proposer to disqualification.

The Contract Documents are hereby amended as follows:

1) The due date to submit proposals has been extended to 11:15AM on February 7, 2024.

2) Permits are required. However, City building fees are waived for this project.

3) Note: As per Article M of the RFP document, State Set Aside requirements DO apply to this project.

NOTE: Each Proposal over $50,000.00 submitted shall be accompanied by a Proposal Security (a Certified Check or Bid Bond) in the amount of ten (10) percent of the Total Proposal Price.

Thank you.

Maureen McCauley

Assistant Director of Purchasing – City of Waterbury

235 GRAND STREET • WATERBURY, CONNECTICUT 06702 • PHONE: (203) 574-6749 • FAX: (203) 597-3437

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
CONTRACT COMPLIANCE REGULATIONS
NOTIFICATION TO BIDDERS

(Revised 09/3/15)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

(a) the bidder's success in implementing an affirmative action plan;
(b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
(c) the bidder's promise to develop and implement a successful affirmative action plan;
(d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
(e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following BIDDER CONTRACT COMPLIANCE MONITORING REPORT must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists,systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category..

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

White (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East. Black(not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa. Hispanic- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.	Asian or Pacific Islander- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa. American Indian or Alaskan Native- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.

BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

Company Name Street Address City & State Chief Executive	Bidder Federal Employer Identification Number _____ Or Social Security Number_____
Major Business Activity (brief description)	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. Yes __No __ -Bidder is a minority business enterprise Yes __No __ (If yes, check ownership category) Black ___ Hispanic___ Asian American___ American Indian/Alaskan Native ___Iberian Peninsula___ Individual(s) with a Physical Disability___ Female ___
Bidder Parent Company (If any)	- Bidder is certified as above by State of CT Yes__ No__
Other Locations in Ct. (If any)	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes__ No__	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes__ No__
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? Yes__ No__	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes__ No__
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? Yes__ No__	9. Does your company have a mandatory retirement age for all employees? Yes__ No__
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes __No __	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? Yes__ No__ NA__
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes __No __	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes __No __NA __
6. Does your company have a collective bargaining agreement with workers? Yes__ No__ 6a. If yes, do the collective bargaining agreements contain non-discrim ination clauses covering all workers? Yes__ No__ 6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? Yes__ No__	12. Does your company have a written affirmative action Plan? Yes __No __ If no, please explain. 13. Is there a person in your company who is responsible for equal employment opportunity? Yes __No __ If yes, give name and phone number. _____

Part III - Bidder Subcontracting Practices

1. Will the work of this contract include subcontractors or suppliers? Yes__ No___

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above? Yes__ No__

PART IV - Bidder Employment Information

Date:

JOB CATEGORY *	OVERALL TOTALS	WHITE (not of Hispanic origin)		BLACK (not of Hispanic origin)		HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)				2. Check (X) any of the below listed requirements that you use as a hiring qualification (X)		3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination
SOURCE	YES	NO	% of applicants provided by source			
State Employment Service					Work Experience	
Private Employment Agencies					Ability to Speak or Write English	
Schools and Colleges					Written Tests	
Newspaper Advertisement					High School Diploma	
Walk Ins					College Degree	
Present Employees					Union Membership	
Labor Organizations					Personal Recommendation	
Minority/Community Organizations					Height or Weight	
Others (please identify)					Car Ownership	
					Arrest Record	
					Wage Garnishments	

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)

COPY

SILKTOWN ROOFING
MANCHESTER, CT

COPY

PROPOSER INFORMATION

a. Firm Name:	*Silktown Roofing, Inc.*
b. Main Office Address:	*27 Pleasant Street, Manchester, CT 06040*
c. Date Organized:	*February 1984*
d. Legal Form of Ownership:	*Corporation; Incorporated in Connecticut*
e. How many Years Have you been Engaged in services:	*40 years*
f. Names/Titles of Reporting relationships And principal Members:	*John C. McConville, President* *Megan Giromalo, Vice President* *Joan K. McConville, Corp. Secretary* *(See Attached Resumes)*

COPY

27 Pleasant Street ❖ Manchester, Connecticut 06040
860-647-0198 ❖ Fax 860-646-0775
www.silktownroofing.com

SILKTOWN ROOFING
MANCHESTER, CT

ABOUT SILKTOWN

Silktown Roofing is a full-service roofing and waterproofing contractor offering a commitment to service unmatched in the roofing industry. From the largest new construction projects, replacement on existing roofing systems, waterproofing and damp proofing projects, aggressive preventive maintenance for the entire building envelope, and the unexpected emergency leak repair, Silktown Roofing demonstrates the highest level of professional workmanship.

Silktown Roofing, Inc. is a Connecticut corporation, lead by John McConville and incorporated in 1992. Silktown Roofing was founded in 1984 by John with just 6 employees, a couple of trucks, our integrity, and a commitment to build relationships with commercial and industrial customers through service. Since then, we have built a solid reputation, enjoyed steady growth, and achieved recognition from all major roofing material manufacturers for the quality of installation and maintenance of their roofing and waterproofing systems, and our excellence in workmanship.

Now with over 300 employees, our original values of quality workmanship and our commitment to customer service are still our top priority.

We specialize in commercial and industrial roofing and waterproofing applications including, but not limited to, built-up, single-ply, tile, slate, shingles, metal, and all types of waterproofing for the entire building envelope.

All projects, from minor repairs to re-roofing and new roof installations, are dealt with in the same professional manner. Our team of trained roofing professionals tend to each detail of the project and stay in constant communication with our customers from the beginning and throughout the life of each particular system that we work on. We pride ourselves for both Quality and Reliability - the traits our clients have told us were the most important factors in choosing us as their roofing contractor.

Over the years we have continued to upgrade our business with new technology. We have fully computerized accounting, inventory, estimating, project management tracking, and preventive maintenance scheduling systems. These systems assist us in tracking and maintaining every detail of our customers new and existing roofing and waterproofing assets.

We invest in state-of-the-art equipment for the removal and installation of the roofing and waterproofing systems that we work with. We have specialized cranes, high-powered vacuum systems, our own fleet of tractor trailer dump box trailers, rough terrain fork lifts, motorized material handling equipment, and fume recovery systems installed on our asphalt kettles.

We only use warranted materials that have achieved consistent superior performance and inspection ratings. Silktown's professional craftsmen only install products to the manufacturers, or the National Roofing Contractors Associations (NRCA) roofing and waterproofing details.

27 Pleasant Street ❖ Manchester, Connecticut 06040
860-647-0198 ❖ Fax 860-646-0775
www.silktownroofing.com

SILKTOWN ROOFING
MANCHESTER, CT

Continued

Silktown Roofing's safety policies go above and beyond the local state and federal Department of Labor Occupational Safety & Health Administration (OSHA) guidelines. We know that the safety of our customers and our associates comes first. From the first day of hire, our associates attend our safety orientation meeting and are mandated to attend our ongoing weekly safety meetings. We continuously analyze and provide our associates with site specific job and duty hazard analysis that educates and promotes the prevention of accidents into every task that we perform.

With three offices in New England Corporate Office in Manchester, CT (covering eastern Connecticut and Western Massachusetts) and satellite offices in Derby, CT (covering western Connecticut and New York) , and Douglas, MA (covering eastern Massachusetts and Rhode Island) , Silktown can provide timely and cost effective roofing and waterproofing services to customers that have one or several properties in the region.

As we have grown in the size of our organization, and with the confidence of our customers, we have also strengthened our commitment to be responsible corporate citizens. We continue to invest in the education, training, and recruitment of men and women to become professionals in the roofing and waterproofing industry.

At Silktown Roofing, we are proud of who we are and the accomplishments we have achieved. We know that our commitment to service and quality workmanship has made us stand out as the premier contractor of choice. We have built successful relationships with our customers, and they have come to depend on us to continue assisting them in the protection and maintenance of their property and assets.

For all eastern Connecticut and Western Massachusetts contracts, please contact Kevin McGrath, 27 Pleasant Street, Manchester, CT 06040

For all western Connecticut and New York contracts, please contact John Morrissey, 151 Water Street, Derby, CT 06418

For all eastern Massachusetts and Rhode Island contracts please contact Jason Woz, 100 Davis Street, Douglas, MA 01516

SILKTOWN ROOFING
MANCHESTER, CT

JOHN C. McCONVILLE – PRESIDENT

1974 – 1981: McConville Roofing - VP and Superintendent
1981 – 1984: Hartford Roofing, Inc. – Project Superintendent
1984 – Present: Silktown Roofing, Inc. – President

As President of the Corporation, John oversees the everyday workings of the company with the help of the PM's and project superintendents. John believes in hands-on leadership and can be found on jobsites on a regular basis. He is an integral part of each project beginning with the bidding process. John is asked by many Architects/GC's/Owners to help design, value engineer and estimate projects for budget purposes. He is an active board member for the Local Roofer's and Sheet Metal Unions so that he is aware of labor issues and can protect his work force. Before becoming a Union Contractor, John instituted the first non-union roofing Apprenticeship Program in the State of CT in 1990.
While John is involved in all projects, below is a partial list of Silktown customers/projects:

Medical: VA Hospital-Rocky Hill, Gaylord Hospital UCONN Medical Center, Gerber Scientific, Neurogen, Ensign-Bickford, American School for the Deaf, Cedar Crest, Wm. Backus, Hartford, and New Britain Hospitals, SMHA

Corporate: Pepsi, PlasPak, Bozzutto's, Travelers Insurance, Bradlees, Sears, C&S Wholesale Refrigeration, Pfizer, Home Depot, USPS, ESPN, Unilever, Ramada Inn, Foxwood Casino, Mohegan Sun Casino and Hotel, MGM Grand at Foxwoods, Parker Hannifin, Quinnipiac Yale and Wesleyan Universities, Culbro, Hartford Insurance, UTC, Pratt & Whitney, Sikorsky, CIGNA, Lucent Technologies, Stop & Shop, SNET, Rockbestos, Solutia, Fleet Bank, Trinity Episcopal Church, Mt. Saint Alphonsus (NY), Kohler Mix, Caval Tool, Real Art Ways, DOW Chemical, Bayer Corp, Warner Lambert, Nordstrom, Fidelity Investments

Government/Municipal: FAA, Bradley Int'l Airport, Hanscom AF Base, Osborn Correctional Center, Barnes ANG, Murphy Terminal Weather Service & Control Tower- BDL, UConn, CCSU, UMass, Naugatuck CTC, Numerous High Schools in CT and MA, Naval Base-Newport, RI, CT Convention Center, GSA-Murphy Building-Waltham MA, US Coast Guard, CT & MA National Guard, Manchester, Hamden, East Hartford and Manchester, Numerous Town Facilities such as library, fire, police in Connecticut, Massachusetts, Rhode Island and New York.

PV Projects/Green Roof: NAVCC-Culpepper, VA, East Lyme High School, CT, Naugatuck High School, CT, New Britain High School, CT, Plainville High School, CT, Louis Toffolan Elementay School, CT, GSA Murphy Bldg., MA

27 Pleasant Street ~ Manchester, CT 06040
O: 860-647-0198 ~ F: 860-646-0775
Affirmative Action/Equal Opportunity Employer

MEGAN MCCONVILLE GIROLAMO
81 Island Avenue ♦ Madison, CT 06443 ♦ (860) 818-2184 ♦ meg.girolamo@gmail.com

SUMMARY

Accomplished and fiercely motivated Vice President with 12 years' experience in the Commercial Construction industry. Expertise includes tactical business leadership and an efficiency-orientated approach to streamlining and ensuring alignment for all integrations company-wide. Successful collaboration with senior stakeholders to effectively prioritize business activities to achieve defined objectives translating to accomplishments companywide. Successful management of a large team via allowing each individual to thrive, grow and contribute. A high integrity individual with a strong work ethic seeking to constantly continue to drive the bottom-line difference within a company.

PROFESSIONAL EXPERIENCE

Silktown Roofing, Inc.: August 2020-Current
Vice President

- Oversee all finance, human resource and project management operations
- Develop streamlining and software integrations to improve efficiency and communications between the internal departments using Foundation Software (all modules)
- Analyze all job estimates and establish rolling budgets and real-time job cost tracking for all projects
- Manage all Work-In-Progress reporting for financial analysis and general ledger adjustments
- Liaise between all Project Managers, Superintendents and Executives on project deliverables
- Oversee financial reporting and financial statement preparation working directly with CPA for all audited financial activities
- Provide support for all Affirmative Action/Equal Opportunity Employment initiatives and required reporting
- Prepare and review insurance buyouts and Workers Comp/GL annual audit processes
- Ensure job flow efficiencies between all departments
- Provide buyout analysis for estimators/project managers for support in the most competitive bid opportunities
- Manage the employee benefit package renewals
- Participate on the 401K Steering Committee and enforce deliverables for Silktown Roofing, Inc.'s retirement planning for employees
- Manage internal inventory and quality control
- Liaise with the Bonding Company, Banking Executives and all other third-party partners to Silktown Roofing, Inc.
- Lead all hiring initiatives, interviews and onboarding of new employees
- Coordinate and support all internal developmental projects and oversee the designated teams

Offshore Construction, Inc.: November 2010-August 2020
President

- Oversee all production and maintenance/service department operations and schedule
- Provide on site project management and support to all foreman and crew members
- Analyze all elements of production efficiency and job costing for all projects
- Manage all financial responsibilities within the company
- Oversee all new hire operations and procedures
- Liaise as direct contact with all customers, vendors and employees
- Manage internal inventory and quality control
- Provide estimating, budgeting, strategy, and profit building techniques
- Create proposals and bids for new opportunities across service and production work.
- Oversee the management of key client roof asset portfolios
- Establish new relationships with production and maintenance customers throughout the United States

Louis Vuitton Moet Hennessy; Moet Hennessy USA, New York, NY : January 2010-November 2010
Senior Financial Analyst

- Coordinator for all Advertising and Promotional Budget processes
- Continual processing and approving of funding transfers
- Manage the MH USA Corporate Marketing spend and brand cost allocation
- Preparation of monthly inventory and depletion dashboard
- Responsible for quarterly regional accrual process
- Construction of value chain and price determination simulation
- Creation and implementation of a system to track actual spend vs. budget for both regions and brand groups
- Ongoing support for US Regional Finance Managers and twenty-eight brand groups
- Support behind the execution of a new Internal Order coding structure

General Electric; NBC Universal, New York, NY : January 2009-January 2010
Financial Management Program (FMP)
Cable Entertainment; Financial Planning and Analysis

- Managed and consolidated Cable Entertainment headquarters' budget
- Oversaw and analyzed each cable entertainment network's cost tracking and rating performance
- Continued analysis of industry and internal network trending
- Consolidated financial summaries and analyzed business performance across cable group
- Provided analytical support for closes and GE estimate periods
- Led ongoing effort to improve and implement standardized forecasting and automated reporting tools

Corporate Finance & Accounting

- Continued tracking of NBC Universal's general ledger; account analysis and variance resolution
- Responsible for corporate general ledger quarterly/upkeep journal entries
- Design and execute NBC Universal vendor and miscellaneous contract audits
- Performed media industry and competitor analysis; impairment research
- Researched and executed internal and external accounting memorandums
- Facilitated quarter close consolidation and corporate reporting
- Completed NBC Universal Corporate ledger account reconciliations on quarterly basis
- Facilitated account reconciliation audits to ensure compliance and accuracy of GE reporting criteria

Award: GE FMP Leadership Award

EDUCATION

Bachelor of Science in Finance and Economics, Fairfield University, Fairfield, CT **Graduating GPA: 3.8**

ADDITIONAL INFORMATION

- Inductee and member of Beta Sigma Gamma National Business Honor Society and Alpha Sigma Nu Jesuit Honor Society
- Vice President of Fairfield University Student Association
- Charles Dolan Business School Scholarship – Academic Achievement and Leadership Award Spring 2008
- Skills: Strong public speaking and oral communication abilities, Proficiency in Foundation Software, Microsoft Windows, Education in PACT Software, STARR, Reuters, SAP, Topaz, Oasis, Business Warehouse and Hyperion

SILKTOWN ROOFING
MANCHESTER, CT

JOAN K. McCONVILLE- CORPORATE SECRETARY

1992- Present Silktown Roofing, Manchester, CT
Corporate Secretary

As Secretary of the Corporation, Joan K. McConville researches upcoming projects, procures bidding insurance documents, prepares bid documents, prepares contracts, insurance requirements and bonding requirements. She also oversees the contract and any changes that might occur as well as working with the bookkeeping department. She maintains records to insure that Silktown is in compliance with the states in which it is certified.

1984-1992 Welcome Aboard
Travel Agent

Briarwood College (1977-1978)
Associates Degree

SILKTOWN ROOFING
MANCHESTER, CT

PROJECT REFERENCES:

Roger Ludlowe Middle School, Town of Fairfield, CT,:

Contract Price: $3,016,500.00

Contact: Sal Morabito, (203) 255-7363

Sedgwick Middle School, Town of West Hartford, CT:

Contract Price: $669,600.00

Contact: Bill Phibbs, (860) 561-7523

Dunbar & Westwood Schools, Town of Hamden, CT

Contract Price: (Dunbar) $2,626,536.00

(Westwood): $2,880,185.00

Contact: Jeremy Godgill, (860) 204-1006

Job Description	City	State	Contract Amount	Owner	Owner's Contact	Designer/Architect	Designer/ Architect Cont	Start Date	End Date	Complaint
PIRELLI HOTEL	New Haven	CT	$795,200.00	Consigli Construction Co.	Aaron Kureger, 774-573-6964	Becker & Becker Assoc.	203-292-4900	10/28/2020	1/31/2023	N/A
SIKORSKY CLN RM & AUTOCLAVE	Stratford	CT	$170,200.00	Richards Corp.	Harold Brennan, 860-583-9229	Ames & Whitaker Architects	860-284-5064	10/15/2021	1/31/2023	N/A
EVERSOURCE SOUTHBOROUGH	Southborough	MA	$110,000.00	Standard Builders	Bryan Bakas, 860-306-2599	Design-Science	978-369-6565	1/27/2022	1/24/2023	N/A
BRISTOL MEMORIAL MAGNET SCHOOL	Bristol	CT	$984,500.00	D'Amato + Downes Joint Venture	Frank Tomcak, 860-229-3755	Quisenberry, Arcari, Malik, LLC	860-677-4594	11/30/2020	12/31/2022	N/A
USPS NAUGATUCK	Naugatuck	CT	$369,700.00	United States Postal Service	Sandra Chong Ham, Sandra.G.ChongHam@usps.gov	Wood Environmental	832-809-8000	11/22/2019	12/31/2022	N/A
BOSTON FIRE ALARM	Boston	MA	$313,389.00	Paul J. Rogan, Co., Inc.	Paul J. Rogan Jr.	C.S.S. Architects Inc.	781-245-8400	11/22/2021	12/31/2022	N/A
MEDFIELD WELLS 3 + 4 WTCF	Medfield	CT	$58,427.00	Biszko Building Systems Inc.	508-679-0518	Environmental Partner's Group	617-657-0200	8/24/2021	12/31/2022	N/A
RIANG MIDDLETOWN READINESS CTR	Middletown	RI	$20,000.00	Tower Construction Corp.	Brett Casale, 401-943-0110	R G B Architects	401-273-1730	10/25/2021	12/31/2022	N/A
Howe Elementary School	Billerica	MA	$109,119.00	BC Construction Co., Inc.	Deana Morano, 978-2760121	PRA Architects	617-354-3561	7/14/2021	12/29/2022	N/A
AMAZON DISTRIBUTION FACILITY	Windsor	CT	$3,565,000.00	R C Anderson LLC	Christine Bunner, 551-206-4428	BL Companies	203-630-1406	11/2/2020	11/30/2022	N/A
COBURN ELEMENTARY SCHOOL	West Springfield	MA	$958,000.00	Fontaine Bros.	Stan Pchelka, PM 413-627-0997	T.S.K.P. Studios / Dietz & Co. Architecture	860-547-1970	1/11/2021	11/30/2022	N/A
USPS ROXBURY MA	Roxbury	MA	$939,000.00	United States Postal Service	Sandra Chong Ham, Sandra.G.ChongHam@usps.gov	USPS	Sandra Chong Ham, Sandra.G.ChongHam@usps.gov	12/9/2021	11/30/2022	N/A
SIKORSKY DYNAMIC BONDING ROOM	Stratford	CT	$36,728.00	Richards Corp.	Sarah Hamilton, 860-583-9229	OMA Architects, LLC	860-604-5807	2/28/2022	11/30/2022	N/A
MILFORD SCHOOLS REPAIRS	Milford	CT	$48,801.00	Milford Public Schools	Patti Rutherford, 203-783-3430	N/A	N/A	8/2/2021	11/30/2022	N/A
3M STAFFORD SPRINGS	Stafford Springs	CT	$11,620.00	O & G INDUSTRIES	Tyson Burk, 860-387-9985	N/A	N/A	12/20/2021	11/30/2022	N/A
UCONN HEALTH CTR MUNSON ROAD	Farmington	CT	$3,211,000.00	University of CT	Martin Benassi, 203-281-5000	UCHC	860-679-2000	7/19/2016	10/31/2022	N/A
HARTFORD SPORTS & MED SCIENCE ACADEMY	Hartford	CT	$1,019,439.00	City of Hartford	John Butkus (Arcadis) 860-503-1510	Silver Petrucelli	Ken Linsley, 203-230-9007	12/1/2021	10/31/2022	N/A
UCONN GANT PHASE I	Storrs	CT	$821,900.00	Whiting Turner	Kevin Seidensticker, 203-777-6783	N/A	N/A	11/30/2017	10/31/2022	N/A
MORRISSEY MANOR	West Haven	CT	$1,390,000.00	Savin Rock Communities	Eric Stokes, 203-934-8671 x113	Antinozzi Associates	Paul Lisi, 203-377-1300	8/31/2021	12/31/2022	N/A
CREC ANA GRACE	Bloomfield	CT	$1,796,000.00	BBE Construction	Noal S. Jenkins, 860-922-5068	Friar Architecture	Bryce Sens, 860-856-1489	12/2/2019	9/30/2022	N/A

SILKTOWN ROOFING
MANCHESTER, CT

CERTIFICATE OF CORPORATE VOTE

On *January 26, 2024*, due notice having been given, a Special Meeting of the Board of Directors of Silktown Roofing, Inc. was held. All directors being present and voting, the following was made, seconded and adopted:

That John C. McConville, in his capacity as President, has the power to sign any and all bidding and contract documents relating to the following project: ***SPRAGUE ELEMENTARY SCHOOL ROOF REPLACEMENT*** and his signature shall be legal and binding upon the corporation.

Joan K. McConville

Joan K. McConville, Corporate Secretary

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

State of Connecticut

ss: Manchester

County of Hartford

February 1, 2024

Personally appeared, Joan K. McConville, Corporate Secretary of Silktown Roofing, Inc., signer and sealer of the foregoing instrument, who being duly authorized, acknowledges the same to be her free act and deed and the free act and deed of said Corporation before me.

Kayla M. Green

Kayla M. Green, Notary Public
My commission expires: October 31, 2027

KAYLA M. GREEN NOTARY PUBLIC MY COMMISSION EXPIRES 10/31/2027. CONNECTICUT

27 Pleasant Street ❖ Manchester, Connecticut 06040
860-647-0198 ❖ Fax 860-646-0775
www.silktownroofing.com

State of Connecticut

Department of Administrative Services

Construction Contractor Prequalification Program

This certifies

Silktown Roofing, Inc.

27 Pleasant Street, 13 Pleasant Street-Remittance Address, Manchester, CT 06040

As a

Prequalification Construction Contractor

April 15, 2023 through April 14, 2024

CONTACT INFORMATION

Name: Joan K. McConville, Corp. Secretary
Phone: (860) 647-0198
Fax: (860) 646-0775
Email: Joan@silktownroofing.com

Name: John C. McConville, President
Phone: (860) 647-0198
Fax: (860) 646-0775
Email: John@silktownroofing.com

Effective Date	Aggregate Work Capacity (AWC)	Single Limit (SL)	Classifications
4/15/2023	$120,000,000.00	$30,000,000.00	ENERGY MANAGEMENT SYSTEMS, GENERAL BUILDING CONSTRUCTION (GROUP C), HISTORICAL BUILDING RESTORATION (MASONRY, ROOFING), METAL SIDING, ROOFING, WATERPROOFING

Classification Name	Description
ENERGY MANAGEMENT SYSTEMS	The design and installation of systems or maintenance programs to conserve energy use within a building. This category includes shared savings programs.

This certificate prequalifies the named company to bid. It is not a statement of the Contractor's capacity to perform a specific project. That responsibility lies with the awarding authority.

Company Licenses/Registrations: It is the Contractor's responsibility to update their license information by editing their electronic application. Licenses are confirmed by the Department of Administrative Services (DAS) at the time of initial application and at each renewal.
For information regarding the DAS Contractor Prequalification Program visit http://portal.ct.gov/dasprequal or call (860) 713-5280.

GENERAL BUILDING CONSTRUCTION (GROUP C)	The undertaking of general contracts for the construction of buildings i.e. new construction, renovation, rehabilitation, alteration, addition, etc. The contract must include a variety of construction practices and supervision of a minimum of three sub-trades. Includes buildings that are truly custom, requiring extensive detailing, or that have large amounts of integrated scientific or complex mechanical/electrical equipment in order for them to function. Examples include hospitals, chemistry buildings, special collections buildings, historic preservation to a landmark structure, and/or any other structure that is truly one of a kind within the State's inventory.Note: If you are prequalified for General Building Construction under Group C, you are automatically prequalified for Group A and Group B. Also if you are prequalified for General Building Group C you will automatically be prequalified for General Trades.Note: For the purposes of DAS Construction Contractor Prequalification, contractors in this classification are not required to be registered as a major contractor with the Department of Consumer Protection. However, there may be specific projects within this classification that require a major contractor registration from the Department of Consumer Protection.Projects that are threshold buildings may require a Major Contractor Registration.
HISTORICAL BUILDING RESTORATION (MASONRY, ROOFING)	Construction/renovation, masonry, and roofing work will require firms with experience with the Secretary of the Interior's Standards for Rehabilitation issued by the U.S. Department of Interior, National Park Service, Washington, D.C. (Standards for Treatment of Historic Project.)
METAL SIDING	Work customarily performed by this industry including the supply and installation of metal siding where used as external components of custom designed buildings. This does not apply to pre-engineered buildings where the metal siding is a building component.
ROOFING	The installation of various types of roofing materials including shingles, slate, rubber, PVC and related flashing and drainage systems.
WATERPROOFING	Installation, renovation, repair and maintenance of materials required to make foundations, walls and other surfaces of a building dam proof or impervious to water, including such incidental or related work as is customarily performed by those in the waterproofing and dam proofing trades. This category does not include roofing by itself.

State of Connecticut

Department of Administrative Services (DAS) Contractor Prequalification

Update Statement

(Statement to be included with the bid)

Connecticut General Statute §4a-100 and Connecticut General Statute §4b-91

Each bid submitted for a contract shall include an update statement in such form as the Commissioner of Administrative Services prescribes and, if required by the public agency soliciting such bid, a copy of a prequalification certificate issued by the Commissioner of Administrative Services. The form for such update statement shall provide space for information regarding all projects completed by the bidder since the date the bidder's prequalification certificate was issued or renewed, all projects the bidder currently has under contract, including the percentage of work on such projects not completed, the names and qualifications of the personnel who will have supervisory responsibility for the performance of the contract, any significant changes in the bidder's financial position or corporate structure since the date the certificate was issued or renewed, any change in the contractor's qualification statusas determined by the provisions of subdivision (6) of subsection (c) of 4a-100 of the Connecticut General Statutes, and such other relevant information as the Commissioner of Administrative Services prescribes. Any public agency that accepts a bid submitted without a copy of such prequalification certificate, if required by such public agency soliciting such bid, and an update statement, may become ineligible for the receipt of funds related to such bid, except the public agency soliciting such bids may allow bidders no more than two business days after the opening of bids to submit a copy of the prequalification certificate, if required by such public agency, and an update statement.

PROJECT THAT COMPANY IS BIDDING ON

PROJECT NAME	
PROJECT NUMBER	Sprague Elementary School Roof Replacement Project 151-0308RR

COMPANY INFORMATION

LEGAL BUSINESS NAME	Silktown Roofing, Inc.	
DBA		
TAXPAYER ID	061350674	
BUSINESS ADDRESS	27 Pleasant Street 13 Pleasant Street-Remittance Address	
BUSINESS CITY, STATE, ZIP	Manchester CT 06040	
PREQUALIFICATION CONTACT	Joan K. McConville, Corp. Secretary	(860) 647-0198 ext.
	John C. McConville, President	(860) 647-0198 ext.

PREQUALIFICATION INFORMATION

EXPIRATION DATE	04-14-2024
SINGLE LIMIT	$30,000,000.00
AGGREGATE WORK CAPACITY (AWC)	$120,000,000.00
REMAINING AGGREGATE WORK CAPACITY *	$119,272,400.00

* The Remaining Aggregate Work Capacity equals your company's AWC minus the Total $ Amount of Work Remaining

BONDED PROJECTS (BOTH PUBLIC AND PRIVATE) CURRENTLY UNDER CONTRACT

Project Name	Project Owner	% Completed	Total Contract Amount	Work Remaining
SEE ATTACHED				

Total Amount of Work Remaining $72,760.00

BONDED PROJECTS (BOTH PUBLIC AND PRIVATE) WHICH WERE AWARDED AND 100% COMPLETED SINCE THE DATE OF YOUR INITIAL PREQUALIFICATION OR YOUR LAST RENEWAL

SEE ATTACHED

PERSONNEL WHO WILL HAVE SUPERVISORY RESPONSIBILITY FOR THE PERFORMANCE OF THE CONTRACT BEING BID ON

Sean Morrissey, PM

CHANGES IN YOUR COMPANY'S FINANCIAL CONDITION OR BUSINESS ORGANIZATION WHICH MIGHT AFFECT YOUR COMPANY'S ABILITY TO SUCCESSFULLY COMPLETE THIS CONTRACT

HAVE THERE BEEN ANY CHANGES? NO

IF YES, EXPLAIN

I CERTIFY UNDER PENALTY OF LAW THAT ALL OF THE INFORMATION CONTAINED IN THIS UPDATE STATEMENT IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AS OF THE DATE BELOW.

Joan K. McConville

Signature Joan K. McConville, Secretary

2-1-2024

Date

Silktown Roofing Incorporated Corporate Seal Established 1992 Connecticut

It is the responsibility of the Awarding Authority to determine if any of the information provided above will impact the contractor's performance on this project.

The DAS' Contractor Prequalification Program can be reached at DAS.Prequalification@ct.gov

SILKTOWN ROOFING INC
CONTRACTS IN PROGRESS (Major defined as over $100,000.00 contract value)
DAS BID UPDATE STATEMENT ATTACHMENT 1

Project Name	Bonded Y/N	Owner	Contract Value	% Complete	$ Remaining on Contract
37 Union St	YES	Whiting Turner	$ 2,495,441.00	99%	$ 24,954.41
Belmont MS HS	YES	Skanska USA Building Inc.	$ 4,169,789.00	95%	$ 208,489.45
BPL Faneuil Hall	YES	Boston Buildng & Bridge Corp	$ 277,000.00	10%	$ 249,300.00
Buckley Elementary	YES	Town of Manchester	$ 885,568.00	95%	$ 44,278.40
Buttonwood Park Zoo	YES	City of New Bedford	$ 241,000.00	99%	$ 2,410.00
Coburn Elementary	YES	Fontane Brothers Inc.	$ 969,778.00	95%	$ 48,488.90
Curley Community	YES	Boston Buildng & Bridge Corp	$ 550,151.00	99%	$ 5,501.51
Morrisey Manor Roof	YES	Savin Rock Communities	$ 1,491,555.00	95%	$ 74,577.75
New Fairfield HS & PO	YES	O&G Industries	$ 1,255,000.00	90%	$ 125,500.00
Riang Bristol Armory Roof	YES	State of Rhode Island	$ 544,389.00	90%	$ 54,438.90
Uconn Hockey Arena	YES	Turner Construction Company	$ 1,000,569.00	99%	$ 10,005.69
USPS Marblehead ME	YES	Roth Brothers Inc.	$ 170,970.00	90%	$ 17,097.00
USPS Roxbury	YES	USPS Roxbury MA	$ 939,000.00	5%	$ 892,050.00
USPS Wakefield MA MPO	YES	Roth Brothers Inc.	$ 443,000.00	99%	$ 4,430.00
Waltham High School	YES	Consigli Construction	$ 4,732,000.00	30%	$ 3,312,400.00
MIDDLEBROOK SCHOOL	YES	Town of Trumbull	$ 2,091,500.00	0%	$ 2,091,500.00
ASML CAGE & PACK	YES	Hodess Construction	$ 265,866.50	50%	$ 132,933.25
LATIMER LANE SCHOOL	YES	O&G Industries	$ 1,308,000.00	0%	$ 1,308,000.00
BURNS LATINO	YES	PDS ENGINEERING	$ 2,317,300.00	20%	$ 1,853,840.00
YALE CRB	YES	PETRA CONSTRUCTION	$ 632,447.00	10%	$ 569,202.30
HAGAMAN LIBRARY	YES	TOWN OF EAST HAVEN	$ 232,000.00	99%	$ 2,320.00
CORNELL SCOTT	YES	Newfield Construction	$ 275,500.00	10%	$ 247,950.00
SPRINGFIELD CLEARWATER	YES	C.H. NICKERSON	$ 202,100.00	80%	$ 40,420.00
			$ 61,423,300.47		$ 39,972,080.47

SILKTOWN ROOFING INC
MAJOR CONTRACTS CLOSED (Major defined as over $100,000.00 contract value)
DAS BID UPDATE STATEMENT ATTACHMENT 2

Project Name	Bonded Y/N	Owner	Date Completed	Location	Contract Value
Boston Engine #42	YES	Boston Buildng & Bridge Corp	Aug-21	MA	$ 368,707.00
Bristol Memorial	YES	D'Amato & Downes JV	Mar-22	CT	$ 955,319.00
Burr Elementary Sch	YES	Town of Fairfield	Dec-21	CT	$ 946,679.00
Coleytown MS	YES	Newfield Construction	Feb-22	CT	$ 3,018,182.00
CREC Ana Grance	YES	Barlett Brainard Eascott	Mar-22	CT	$ 1,903,684.00
Durfee HS	YES	Suffolk Construction Company	Aug-21	MA	$ 3,897,818.00
East Boston Police	YES	J&J Contractors Inc.	Aug-21	MA	$ 675,062.00
Hall High School	YES	Town of West Hartford	Aug-21	CT	$ 1,100,424.00
Hartford Hosp Bliss	YES	FIP Construction	Feb-22	CT	$ 374,739.00
Haverhill HS Gym	YES	City of Haverhill	Dec-21	MA	$ 697,954.00
LRTA Gallagher & Maguire Roof	YES	Lowell Regional Transit	Mar-22	MA	$ 299,487.00
NUWCD New Isopar	YES	Structural Associates	Sep-21	RI	$ 132,562.00
RI Convent Ctr	YES	SMG RI	May-20	RI	$ 3,713,596.00
Sage Park Middle Sch	YES	Town of Windsor	Aug-21	CT	$ 1,525,576.00
SCSU New Health	YES	Skanska USA Building Inc.	Apr-22	CT	$ 685,438.00
Sedgwick Middle Sch	YES	Town of West Hartford	Aug-21	CT	$ 548,900.00
Sisson Ave Firehouse	YES	City of Hartford	Mar-22	CT	$ 274,296.00
Stonington Middle Sch	YES	Stonington Public Schools	Sep-21	CT	$ 931,670.00
Uconn Gant Phase 1	YES	Whiting Turner	Feb-22	CT	$ 975,526.00
Uconn NW SCI Quad	YES	Bond Brothers Inc.	Apr-22	CT	$ 520,044.00
USPS Boston IMC	YES	Roth Brothers Inc.	Nov-21	MA	$ 150,573.00

AIA® Document A310™ – 2010

Bid Bond

CONTRACTOR:
(Name, legal status and address)
Silktown Roofing, Inc.
27 Pleasant St.
Manchester, CT 06040

SURETY:
(Name, legal status and principal place of business)
Hartford Fire Insurance Company
The Hartford - Bond Claim Department
One Hartford Plaza, T-11
Hartford, CT 06155

OWNER:
(Name, legal status and address)
City of Waterbury
Massachusetts

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

BOND AMOUNT: 10% of the attached bid

PROJECT:
(Name, location or address, and Project number, if any)
Sprague Elementary School Roof Replacement

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 1st day of February, 2024

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

(Witness)	*(Principal)* *(Seal)*
	John C. McConville, President
	(Title)
(Witness)	*(Surety)* *(Seal)*
	Jeri A. Caron, Attorney-in-Fact
	(Title)

HARTFORD FIRE INSURANCE CO. INCORPORATED 1810

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

Init.
/

AIA Document A310™ – 2010. Copyright © 1963, 1970 and 2010 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. Purchasers are permitted to reproduce ten (10) copies of this document when completed. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org

POWER OF ATTORNEY

Direct Inquiries/Claims to:
THE HARTFORD
BOND, T-11
One Hartford Plaza
Hartford, Connecticut 06155
Bond.Claims@thehartford.com
call: 888-266-3488 *or fax:* 860-757-5835

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Name: [redacted]
Agency Code: [redacted]

- [x] **Hartford Fire Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- [ ] **Hartford Casualty Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Accident and Indemnity Company**, a corporation duly organized under the laws of the State of Connecticut
- [ ] **Hartford Underwriters Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- [ ] **Twin City Fire Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Insurance Company of Illinois**, a corporation duly organized under the laws of the State of Illinois
- [ ] **Hartford Insurance Company of the Midwest**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Insurance Company of the Southeast,** a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint
[redacted]
[redacted]
its true and lawful Attorney-in-Fact, to sign its name as surety(ies) only as delineated above by , and to execute, seal and acknowledge the following bond, undertaking, contract or written instrument:
Bond No. [redacted]
[redacted]
[redacted]
in the amount of See Bond Form(s) on behalf of Company in its business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 23, 2016 the Companies have caused these presents to be signed by its Assistant Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.

Shelby Wiggins

Shelby Wiggins, Assistant Secretary

Joelle L. LaPierre

Joelle L. LaPierre, Assistant Vice President

STATE OF FLORIDA
COUNTY OF SEMINOLE } ss. Lake Mary

On this 20th day of May, 2021, before me personally came Joelle LaPierre, to me known, who being by me duly sworn, did depose and say: that (s)he resides in Seminole County, State of Florida; that (s)he is the Assistant Vice President of the Companies, the corporations described in and which executed the above instrument; that (s)he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that (s)he signed his/her name thereto by like authority.

Jessica Ciccone

Jessica Ciccone
My Commission HH 122280
Expires June 20, 2025

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of [redacted].

Signed and sealed in Lake Mary, Florida.

Keith Dozois

Keith D. Dozois, Assistant Vice President

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 2024)
Persons or Entities Conducting Business with the City

I. Outstanding Purchase Orders of Contracts with the City

A. Contracts

No Contracts with the City ☑

(Service or Commodity Covered by Contract)

(Term of Contract)

(Service or Commodity Covered by Contract)

(Term of Contract)

(Service or Commodity Covered by Contract)

(Term of Contract)

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 2024)
Persons or Entities Conducting Business with the City

B. Purchase Order(s).

No Purchase Order(s) with the City ☑

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 2024)
Persons or Entities Conducting Business with the City

II. Financial Interest Disclosure

(Public Officials, Employees or Board and Commission Members with interest in Person or Entity Conducting Business with the City)

No Officials, Employees or Board and Commission Members with Financial Interest ☑

(Name of Official)

(Position with City)

(Nature of Business Interest)
(e.g. Owner, Director etc...)

Interest Held By:
Self ☐ Spouse ☐ Joint ☐ Child ☐

(Name of Official)

(Position with City)

(Nature of Business Interest)
(e.g. Owner, Director etc...)

Interest Held By:
Self ☐ Spouse ☐ Joint ☐ Child ☐

1. I certify that this Annual Statement of Financial Interests is a complete and accurate statement of those matter required to be disclosed by me pursuant to §39.061 of the Code of Ordinances.

2. I understand that if I fail to file an Annual Statement (or amendment thereto) or an inaccurate Statement I will be in violation with Chapter 39 of the Code of Ordinance and, thereby, subject to the remedies set forth in §§38.71 and 39.101 of said Code.

3. I understand that I must file with the City Clerk, within fifteen (15) days following any reportable occurrence, any amendments to the Annual Statement.

I have read and agree to the above certification.

SILKTOWN ROOFING INC.
(Name of Company, if applicable)

Maureen Damaschi
Signature of Individual (or Authorized Signatory)

01/23/2024
Date

Maureen Damaschi, Controller
Print or Type Name and Title (if applicable)

DELIVERED | By Mail ☐ Hand-Delivered ☐

City of Waterbury Certification
Regarding
Debarment, Suspension, Ineligibility and Exclusion

If the transaction is Federally funded, in whole or in part (including pass through grants to state and/or municipal government), this certification is required by the regulations implementing one or more Presidential Executive Orders. If this transaction is funded by the State of Connecticut, in whole or in part, this certification is required in accordance with one or more State of Connecticut general statutes.

1. By signing and submitting the attached proposal and/or this document, the prospective lower tier participant, vendor, or contractor is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant, vendor, or contractor knowingly rendered an erroneous certification, in addition to other remedies available to the Federal , State, or City government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant, vendor or contractor shall provide immediate written notice to the person to which the attached proposal and/or this document is submitted if at any time the prospective lower tier participant, vendor or contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction", "principal", "proposal", and "voluntarily excluded", as used herein, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549 and/or State of Connecticut statutes and regulations. You may contact the person to which this proposal and/or this document is submitted for assistance in obtaining a copy of the foregoing.
5. The prospective lower tier participant, vendor or contractor agrees by submitting the attached proposal and/or this document that, should the proposed covered transaction be entered into, it shall not knowingly enter into any covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant, vendor or contractor further agrees by submitting the attached proposal and/or this document that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion-Lower Tier Covered Transactions", without modification, in all covered transaction and in all solicitations for covered transactions.
7. A participant in a covered transaction may rely upon the certification of a prospective participant in a covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may but is not required to, check the Non-procurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required herein. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 herein, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal, State or Municipal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification

(1) The prospective recipient of monies hereby certifies, by submission of its attached proposal and/or by execution of this document, that neither it nor its principles are presently debarred, suspended, proposed for debarment, declared ineligible, disqualified, or voluntarily excluded from bidding or participation in the proposed transaction by any Federal, State, or Municipal department or agency or by the statutes, regulations or ordinances of the foregoing departments and agencies.

(2) Where the prospective recipient of monies is unable to certify to any of the statements in this certification, such prospective participant shall attach a written explanation hereto.

Full Legal Name and address of Recipient, Vendor, or Contractor: Silktown Roofing, Inc.
27 Pleasant Street
Manchester, CT 06040

Print Name and Title of Authorized Representative: John C. McConville, President

Signature of Authorized Representative:

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

Date: 2-1-2024

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

For the purposes of this Disclosure of Outstanding Financial Obligations, the following definitions apply:

(a) "Contract" means any Public Contract as defined below.

(b) "Person" means one (1) or more individuals, partnerships, corporations, associations, or joint ventures.

(c) "Public Contract" means any agreement or formal commitment entered into by the city to expend funds in return for work, labor, services, supplies, equipment, materials or any combination of the foregoing, or any lease, lease by way of concession, concession agreement, permit, or per agreement whereby the city leases, grants or demises property belonging to the city, or otherwise grants a right of privilege to occupy or to use said property of the city.

(d) "City" means any official agency, board, authority, department office, or other subdivision of the City of Waterbury.

State of Connecticut

SS.: Manchester

County of Hartford

John C. McConville, being first duly sworn, deposes and says that:

1. I am the ***owner, partner, officer, representative, agent or*** President of Silktown Roofing, Inc. (Contractor's Name), the Contractor that has submitted the attached agreement.

2. I am fully informed respecting the preparation and contents of the attached Agreement and of all pertinent circumstances respecting such Agreement;

3. That as a person desiring to contract with the City (check all that apply):

____ The Contractor and each owner, partner, officer, representative, agent or affiliate of the Contractor has filed a list of taxable personal property with the City of Waterbury for the most recent grand list, as required by Conn. Gen. Stat. §12-42.

__X__ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor are required to file a list of taxable personal property with the City of Waterbury for the most recent grand list, as required by Conn. Gen. Stat. §12-42.

__X__ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor either directly or through a lease agreement, owes back taxes to the City of Waterbury

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

X Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor either directly or through a lease agreement, has any other outstanding obligations to the City of Waterbury

4. The following list is a list of the names of all persons affiliated with the business of the Contractor, if none state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

	Name	Title	Affiliated Company (if none state NONE)	Service or Material	DOB
1	N/A	N/A	N/A	N/A	N/A
2					
3					
4					

5. That as a person desiring to contract with the City:

(a) The Contractor or an owner, partner, officer, representative, agent or affiliate of the Contractor provides, or has provided, services or materials to the City within one (1) year prior to the date of this disclosure, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

	Name	Title	Affiliated Company (if none state NONE)	Service or Material	DOB
1	N/A	N/A	N/A	N/A	N/A
2					
3					
4					

(b) The Contractor possesses an ownership interest in the following business organizations, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized) :

	Organization Name	Address	Type of Ownership
1	NONE.		
2			
3			
4			

(c) The following persons possess an ownership interest in the Contractor. If the Contractor is a corporation, list all of the officers of the corporation and the names of each stockholder whose shares exceed twenty-five

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

(25) percent of the outstanding stock, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

	Name	Title	DOB	Stock %
1	John C. McConville	President	8/28/56	100%
2				
3				
4				

(d) Of the following of the affiliates, individuals or business entities identified in this affidavit, list each that owns, owned, or within one (1) year prior to the date of this disclosure has owned, taxable property situated in the City of Waterbury, if none state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

	Name	Title	Affiliated Company (if none state NONE)	Address	DOB
1	NONE.				
2					
3					
4					

(e) If the Contractor conducts business under a trade name, the following additional information is required: the place where such entity is incorporated or is registered to conduct such business; and the address of its principal place of business, if none, state none:

	TRADE NAME	PLACE OF INCORPORATION/REGISTRY	PRINCIPAL PLACE OF BUSINESS
1	N/A	N/A	N/A
2			
3			
4			

I hereby certify that the statements set forth above are true and complete, and I understand that any incorrect information or omission of information from this affidavit may result in the immediate termination of the Contractor's agreement with the City of Waterbury.

For Partnership/Sole Proprietor

In presence of:

N/A
Witness

N/A
Name of Partnership/Business

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

By: N/A
Name of General Partner/ Sole Proprietor

N/A
Address of Business

State of N/A)

) SS

County of N/A)

N/A being duly sworn,

Deposes and says that he/she is N/A of N/A and that he/she answers to the foregoing questions and all statements therein are true and correct.

Subscribed and sworn to before me this N/A day of _____ 202_.

(Notary Public)

My Commission Expires: N/A

For Corporation

Witness

John C. McConville, President
Name of Corporate Signatory

27 Pleasant Street, Manchester, CT 06040
Address of Business

Affix Corporate Seal

By: _____
Name of Authorized Corporate Officer
John C. McConville

Its: President
Title

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

State of Connecticut)

) SS Manchester

County of Hartford)

John C. McConville being duly sworn,

deposes and says that he/she is President of Silktown Roofing, Inc. and that he/she answers to the foregoing questions and all statements therein are true and correct.

Subscribed and sworn to before me this 1st day of February 2024.

Kayla M. Green (Notary Public)

My Commission Expires: October 31, 2027

KAYLA M. GREEN NOTARY PUBLIC MY COMMISSION EXPIRES 10/31/2027. CONNECTICUT

ATTACHMENT C

KEVIN MC CAFFERY
DIRECTOR OF PURCHASING
235 GRAND STREET, ROOM 103
WATERBURY, CT 06702

The undersigned declares that the only persons or parties interested in this Proposal as principals are as stated; that the Proposal is made without any collusion with other persons, firms, or corporations; that Proposer has carefully examined the entire Request for Proposal; that Proposer has informed itself fully in regard to all conditions pertaining to the Work and the place where it is to be performed; and that with this representation, the undersigned makes this Proposal. These prices shall cover all expenses incurred in performing the Work required under the Contract Documents, of which this Proposal and Form are a part.

The undersigned agrees and covenants that the Contract Time shall commence on delivery of the City of Waterbury's written notice to proceed, which shall occur after contract execution by both parties.

The undersigned acknowledges receipt of addenda numbered: (insert date)

1 Addendum 2 - 1/26/24 4 _____

2 Addendum 2 - 2/1/24 5 _____

3 _____ 6 _____

All Work for this Project shall be performed at the Proposal Prices as described in the Proposal Documents.

The undersigned hereby certifies under the penalties of perjury that this Proposal is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this section, the work "person" shall mean any natural person, joint venture, partnership, corporation, or other business or legal entity.

06-1350674
Social Security Number
or Federal Identification Number

Signature of Individual or Corporate Name

John C. McConville, President / Silktown Roofing, Inc.
Corporate Officer
(if applicable)

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

City notice of acceptance should be mailed, telegraphed or delivered to the undersigned Proposer at the following address:

Name Sean Morrissey
By: Project Manager
(Title)
Business Address: 151 Water Street
(City, State, Zip Code)
Derby, Connecticut
06418
Phone: (203) 735-0552
Email: sean@silktownroofing.com
Date: 2-1-2024

Note: If the Proposer is a corporation, indicate State of incorporation under signature, and affix corporate seal; if a partnership, give full names and residential addresses, if different from business address.

Incorporated in Connecticut
John C. McConville, President
Megan Girolamo, Vice President

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 4/25/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Sinclair Insurance Group, Inc. 35 Thorpe Ave Ste 200 Wallingford CT 06492 License#: 2328358	CONTACT NAME: Renee Wozniak PHONE (A/C, No, Ext): 203-284-3226 FAX (A/C, No): 203-284-3226 E-MAIL ADDRESS: rwozniak@srfm.com
INSURED Silktown Roofing Inc. 27 Pleasant Street Manchester, CT 06040 SILKROO-05	INSURER A : National Fire Co. of Hartford — 20478 INSURER B : American Casualty of Reading — 20427 INSURER C : Zurich Insurance — 16535 INSURER D : Allied World Assurance Co. — 22730 INSURER E : Indemnity Ins Co of N America — 43575 INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 2022014273 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			5092135340	5/1/2023	5/1/2024	EACH OCCURRENCE	$1,000,000
	[ ] CLAIMS-MADE [X] OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$100,000
	X XCU Included						MED EXP (Any one person)	$15,000
	X Contractual Liab						PERSONAL & ADV INJURY	$1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$2,000,000
	[ ] POLICY [X] PRO-JECT [ ] LOC						PRODUCTS - COMP/OP AGG	$2,000,000
	X OTHER: NO Residen Excl							$
A	AUTOMOBILE LIABILITY			C 5092135337	5/1/2023	5/1/2024	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	[ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS ONLY X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
	X G-21578 Poll							$
E	X UMBRELLA LIAB X OCCUR			N1106940A	5/1/2023	5/1/2024	EACH OCCURRENCE	$5,000,000
	[ ] EXCESS LIAB [ ] CLAIMS-MADE						AGGREGATE	$5,000,000
	[ ] DED X RETENTION $ 10,000							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N			WC 5 92135354	5/1/2023	5/1/2024	X PER STATUTE [ ] OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBEREXCLUDED? [N] (Mandatory in NH)	N/A					E.L. EACH ACCIDENT	$1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$1,000,000
							E.L. DISEASE - POLICY LIMIT	$1,000,000
D C	Excess Liability Poll/Prof Incl MOLD			0310-6855 AEC3140017-03	5/1/2023 5/1/2023	5/1/2024 5/1/2024	Ea Occ/Aggregate Aggregate Limit	5,000,000 10,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Evidence of Insurance

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

R C Wozniak

© 1988-2015 ACORD CORPORATION. All rights reserved.

The ACORD name and logo are registered marks of ACORD

STATE OF CONNECTICUT
DEPARTMENT OF CONSUMER PROTECTION

This is your Major Contractor registration certificate for your records. Such registration shall be shown to any properly interested person on request. Do not attempt to make any changes or alter this certificate in any way. This registration is not transferable. Questions regarding this registration can be emailed to the Occupational & Professional Licensing Division at dcp.occupationalprofessional@ct.gov.

In an effort to be more efficient and Go Green, the department asks that you keep your email information with our office current to receive correspondence. You can update your email address or print a duplicate certificate by logging into your account with your User ID and Password at www.elicense.ct.gov.

Mailing address:

SILKTOWN ROOFING INC
27 PLEASANT ST
MANCHESTER, CT 06040-5891

Email on file to be used for receiving all notices from this office:

kim@silktownroofing.com

954603

STATE OF CONNECTICUT ✦ DEPARTMENT OF CONSUMER PROTECTION

Be it known that

SILKTOWN ROOFING INC

27 PLEASANT ST
MANCHESTER, CT 06040-5891

has satisfied the qualifications required by law and is hereby registered as a

MAJOR CONTRACTOR

Registration #: MCO.0900776
Effective Date: 07/01/2023
Expiration Date: 06/30/2024

verify online at www.elicense.ct.gov

Bryan T. Cafferelli, Commissioner

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
CONTRACT COMPLIANCE REGULATIONS
NOTIFICATION TO BIDDERS

(Revised 09/3/15)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

(a) the bidder's success in implementing an affirmative action plan;
(b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
(c) the bidder's promise to develop and implement a successful affirmative action plan;
(d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
(e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following BIDDER CONTRACT COMPLIANCE MONITORING REPORT must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists,systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category..

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

White (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East. Black(not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa. Hispanic- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.	Asian or Pacific Islander- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa. American Indian or Alaskan Native- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.

BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

Company Name Silktown Roofing, Inc. Street Address 27 Pleasant Street City & State Manchester, CT 06040 Chief Executive John C. McConville, President	Bidder Federal Employer Identification Number XX-XXX0674 Or Social Security Number_____
Major Business Activity (brief description) Roofing Contractor	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. Yes __ No X -Bidder is a minority business enterprise Yes __ No X (If yes, check ownership category) Black___ Hispanic___ Asian American___ American Indian/Alaskan Native ___Iberian Peninsula___ Individual(s) with a Physical Disability___ Female___
Bidder Parent Company (If any) N/A	- Bidder is certified as above by State of CT Yes__ No__
Other Locations in Ct. (If any) 151 Water Street, Derby, CT 06418	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes X No__	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes X No__
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? Yes X No__	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes X No__
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? Yes X No__	9. Does your company have a mandatory retirement age for all employees? Yes__ No X
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes X No __	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? Yes X No __ NA__
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes __ No X	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes __ No __ NA X
6. Does your company have a collective bargaining agreement with workers? Yes X No__ 6a. If yes, do the collective bargaining agreements contain non-discrim ination clauses covering all workers? Yes X No__ 6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? Yes X No__	12. Does your company have a written affirmative action Plan? Yes X No __ If no, please explain. 13. Is there a person in your company who is responsible for equal employment opportunity? Yes X No __ If yes, give name and phone number. Maureen Damaschi, EEO Officer, 860-432-7346

Part III - Bidder Subcontracting Practices

1. Will the work of this contract include subcontractors or suppliers? Yes X No__

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

Adler Roof Vac - non SBE/MBE
Custom Pipe & Drain - non SBE/MBE
A Royal Flush - SBE
Hartford Lumber - SBE

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above? Yes__ No X

PART IV - Bidder Employment Information

Date:

JOB CATEGORY *	OVERALL TOTALS	WHITE (not of Hispanic origin)		BLACK (not of Hispanic origin)		HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

SEE ATTACHED

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

PART V - Bidder Hiring and Recruitment Practices

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)				2. Check (X) any of the below listed requirements that you use as a hiring qualification (X)		3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination
SOURCE	YES	NO	% of applicants provided by source			
State Employment Service	X		.5%		Work Experience	
Private Employment Agencies					Ability to Speak or Write English	
Schools and Colleges					Written Tests	
Newspaper Advertisement					High School Diploma	
Walk Ins					College Degree	
Present Employees				X	Union Membership	
Labor Organizations	X		99%		Personal Recommendation	
Minority/Community Organizations	X		.5%		Height or Weight	
Others (please identify)					Car Ownership	
					Arrest Record	
					Wage Garnishments	

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)
John C. McConville	President	February 1, 2024	860-647-0198

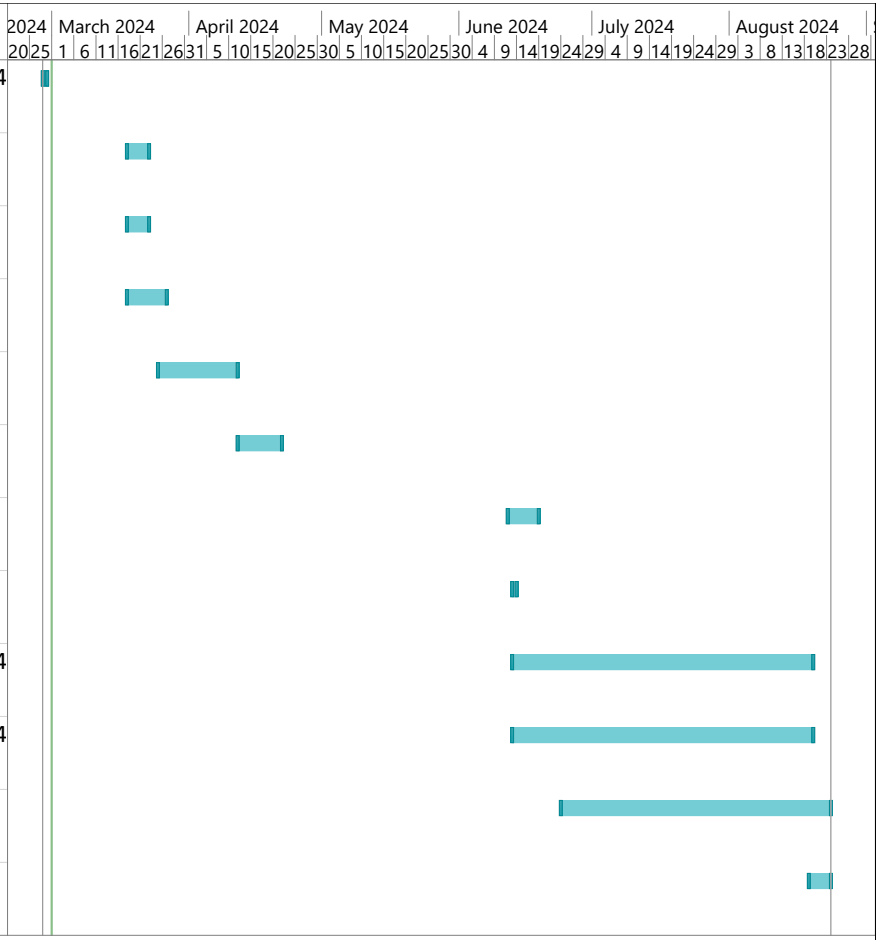


COMPANY EMPLOYMENT STATISTICS REPORT
STATE OF CONNECTICUT
COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES

Company name:	Street Address:	City, State, Zip code:
Silktown Roofing Inc	27 Pleasant Street	Manchester, CT 06040
Company Official: John C. McConville	Title President	Telephone No. 860-647-0198
Project # 151-0308RR Sprague Elementary School Roof Replacement	Location 1443 Thomaston Ave. Waterbury, CT	Date February 7, 2024

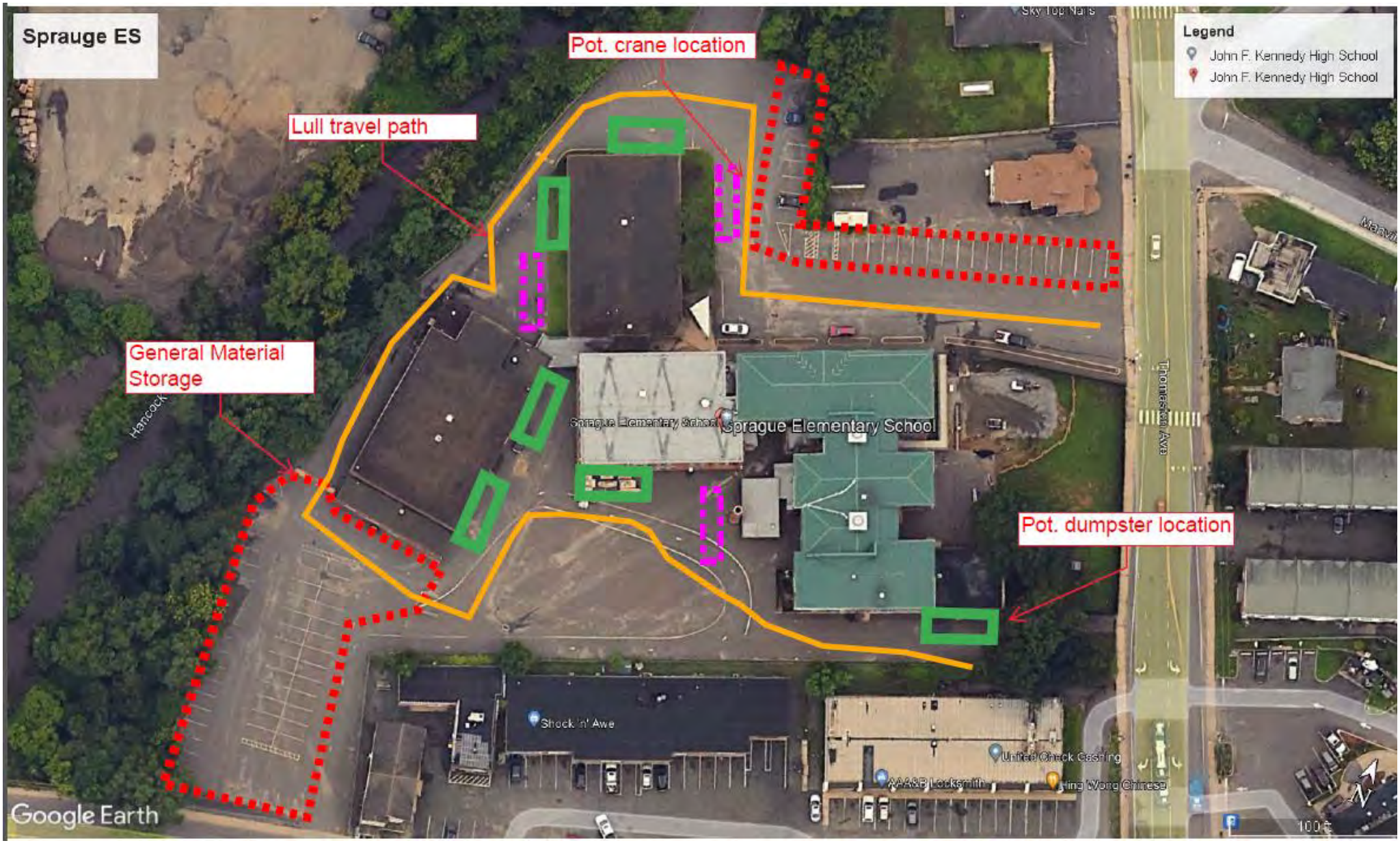
Job/Trade Title	Total # of Employees		% # of Females	Total White Employees		Total Black Employees		Total Hispanic Employees		Other Race Employees		Sub Total Minority Males	% # of Minority Males
	M	F		M	F	M	F	M	F	M	F		
Officials Managers	4	1	20	4	1	0	0	0	0	0	0	0	0
Professionals	19	3	14	19	2	0	0	0	1	0	0	0	0
Clericals	0	9	100	0	9	0	0	0	0	0	0	0	0
Roofer Journeymen	106	0	0	41	0	16	0	48	0	1	0	65	61
Roofer Foreman	26	0	0	14	0	1	0	11	0	0	0	15	58
Roofer Apprentice	14	0	0	5	0	2	0	7	0	0	0	9	64
Totals	169	13	7	83	12	19	0	66	1	1	0	86	51

ID	Task Mode	Task Name	Duration	Start	Finish
1		Initial Scope Meeting	1 day	Wed 2/28/24	Wed 2/28/24
2		Contract	5 days	Mon 3/18/24	Fri 3/22/24
3		Subcontractor Contracts	5 days	Mon 3/18/24	Fri 3/22/24
4		Submittals	7 days	Mon 3/18/24	Tue 3/26/24
5		Material Procurement	14 days	Mon 3/25/24	Thu 4/11/24
6		*Potential April Break Work*	7 days	Fri 4/12/24	Sun 4/21/24
7		Summer Mobilization	5 days	Wed 6/12/24	Tue 6/18/24
8		Roofing Rip Begin	1 day	Thu 6/13/24	Thu 6/13/24
9		Subcontractor Work	48 days	Thu 6/13/24	Mon 8/19/24
10		Roof Removal and Replacement	48 days	Thu 6/13/24	Mon 8/19/24
11		Metal Installation	45 days	Mon 6/24/24	Fri 8/23/24
12		Demobilization	5 days	Mon 8/19/24	Fri 8/23/24



Project: Sprauge ES - Schedule
Date: Fri 3/1/24

Task	Inactive Summary	External Tasks
Split	Manual Task	External Milestone
Milestone	Duration-only	Deadline
Summary	Manual Summary Rollup	Progress
Project Summary	Manual Summary	Manual Progress
Inactive Task	Start-only	
Inactive Milestone	Finish-only	


Sprauge ES
Pot. crane location
Lull travel path
General Material Storage
Pot. dumpster location
Legend
John F. Kennedy High School
John F. Kennedy High School
Sprague Elementary School
Hancock
Thompson Ave
Shock 'n' Awe
United Check Cashing
AA&B Locksmith
Google Earth
100 ft

SILKTOWN ROOFING
MANCHESTER, CT

3/4/2024

The City of Waterbury
235 Grand Street
Waterbury, CT 06702
Attn: Kevin McCaffery

RE: Waterbury Public Schools
RFP 7930 – Roof Replacement Kennedy High School
RFP 7931 – Roof Replacement Tinker Elementary School
RFP 7932 – Roof Replacement Sprague Elementary School

Dear Kevin,

Pursuant to our meeting regarding the aforementioned projects we are prepared to offer to following:

RFP 7930 Roof Replacement Kennedy High School: DEDUCT from bid price ($75,000.00)*
RFP 7931 Roof Replacement Tinker ES: DEDUCT from bid price ($10,000)*1
RFP 7932 – Roof Replacement Sprague ES: DEDUCT from bid price ($10,000)*1

*: These offers are ONLY valid if we are provided the opportunity to perform work at **all 3** schools over the April vacation period. If we are not provided with that opportunity, there shall be no deduction given.
1: IN ADDITION TO THE ABOVE, there shall be no deductions for Tinker or Sprague if we are not awarded JFK High School.

If we are only awarded JFK – there would be no deduction from our bid price of $2,957,000.00.

However, for Silktown to hold the aforementioned pricing, Silktown requires a letter of intent from the City of Waterbury by March 15th, 2024, by 4PM. After the letter of intent, Silktown will deliver technical submittals not later than the week of March 25th with completed review returned to us by April 1st. Silktown would also need the town to allow Silktown to begin loading the jobsites on the afternoon of April 12th in the event we work during the April vacation.

27 Pleasant Street ❖ Manchester, Connecticut 06040
860-647-0198 ❖ Fax 860-646-0775
www.silktownroofing.com

Also enclosed are the requested weather dependent project schedules as well as potential staging areas.

We look forward to hopefully working with you on these projects. Should you have any questions or require additional information, please do not hesitate to contact me.

Very Truly Yours,

SILKTOWN ROOFING, INC.

John Morrissey
General Manager
P. (203)-735-0552

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Sprague Elementary School Roof Replacement
RFP# 7932
Project 151-0308RR
ATTACHMENT E
Revised Price Proposal

(Must be submitted as part of Proposal in a separate sealed envelope, marked "Confidential: Price Proposal.")

*: These offers are ONLY valid if we are provided the opportunity to perform work at **all 3** schools over the April vacation period. If we are not provided with that opportunity, there shall be no deduction given.
1: IN ADDITION TO THE ABOVE, there shall be no deductions for Tinker or Sprague if we are not awarded JFK High School.
If we are only awarded JFK - there would be no deduction from our bid price of $2,957,000.00.
Revised pricing below includes deductions pursuant to letter.

Date: 3-6-2024

Kevin McCaffery
Director of Purchasing
City of Waterbury
235 Grand Street, Room 103
Waterbury, CT 06702

Sir:

Pursuant to and in compliance with your RFP, the Undersigned,

Silktown Roofing, Inc.
(Print or Type Company/Corporate Name)

27 Pleasant Street, Manchester, CT 06040
(Print or Type Business Address)

having carefully examined all the RFP Documents, together with all Addenda, as acknowledged on Attachment C, and having informed itself fully in regard to all conditions and related requirements pertaining to the performance of services required under this RFP; and that with this representation, the undersigned makes this Proposal, as follows:

[Proposal continued on following page(s)]

Roof Replacement		
Description	**Amount (In Words)**	**Amount (In $)**
Sprague Elementary	Eight Hundred Twenty Four Thousand Dollars	**$** 824,000.00*
	GRAND TOTAL	**$** 824,000.00*

Alternates:

The undersigned proposes to furnish all Labor, Materials, Equipment and Services necessary to construct the items listed in the Alternates described in Section 012300 for the stipulated sum of:

DEDUCT ALTERNATE #1: Twenty (20) Year Warranty: Deduct from the Base Bid a Total of:

$ N/A _____ Dollars ($ N/A .00).
written figure

The project schedule will be (increased/decreased) by N/A calendar days to complete the work indicated under Deduct Alternate 1.

Unit Prices (See Section 012200):

As required by the Base Bid, should inadequate, deteriorated, or damaged materials be required to be removed as determined by the Architect or Owner, the cost to remove and replace the referenced material, (or credit for specified material not provided or installed) including all labor, material, equipment, and related furnishings is as follows:

Item	Description	Unit Price
1.	Tectum roof deck, thickness to match existing roof deck to be removed (including deteriorated roof deck removal, credit and add)	$15.00sf
2.	Add pressure treated wood blocking, as specified, cut to fit around roof structure and systems installed	$4.50 bf
3.	Deduct pressure treated wood blocking, as specified, cut to fit around roof structure and system installed	$ 3.50 bf

END OF ATTACHMENT E

KEVIN McCAFFERY
DIRECTOR OF PURCHASING

OFFICE OF THE DIRECTOR OF PURCHASING
THE CITY OF WATERBURY
CONNECTICUT

March 6, 2024

John C. McConville
Silktown Roofing
27 Pleasant Street
Manchester, CT 06040

RFP# 7930, 7931, 7932
Project: Roof Replacement Kennedy High School, Tinker Elementary School and Sprague Elementary School

Dear Mr. McConville,

On behalf of the City of Waterbury I want to inform you that your firm has been selected for the above-mentioned City projects. In order to contract with the City of Waterbury a written contract must be approved by the Corporation Counsel and all required City Boards.

You will be contacted in the immediate future by a member of our Legal Department.

Sincerely,

Kevin McCaffery
Director of Purchasing

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE ON FINANCE

Item #11.3

February 16, 2023

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee on Finance moves that the Waterbury Board of Education approve a Construction Contract (RFP #7931) with Silktown Roofing for Tinker Elementary School Roof Replacement.

WATERBURY
PUBLIC SCHOOLS

Nicholas J. Albini
Chief Operating Officer
(203) 346-2340
nalbini@waterbury.k12.ct.us

EXECUTIVE SUMMARY

DATE: March 14, 2024

TO: Honorable Board of Education Commissioners
Honorable Board of Aldermen Members

FROM: Nicholas J. Albini, Chief Operating Officer

RE: Construction Contract for Roof Replacement at Tinker Elementary School (RFP#7931) with Silktown Roofing, Inc.

The Education Department respectfully requests your review and approval of a construction contract for Roof Replacement at Tinker Elementary School in the total amount of $876,000 which includes an owner controlled contingency of $50,000 for the above mentioned scope. The contract was initiated under the Request for Proposal #7931 in which Silktown was deemed the lowest bidder and the most qualified. This Agreement is subject to minor, non-substantive changes to be approved by the Office of the Corporation Counsel.

The project consists of roof replacement of the existing building, generally including removal and replacement of existing membrane roofing, metal ladders, roof decking, drains, roof hatches and accessories. The project is being funded through the State of Connecticut's Department of Administrative Services School Construction Grant Program. In order for Silktown to complete all work and services within 120 days from the City's notice to proceed, they will need to begin work over the scheduled April break. This will also minimize the impact on school activities. Silktown has performed satisfactorily at West Side Middle School and Gilmartin Elementary School in the past.

The Education Department will have a representative present at your upcoming meetings to answer any questions you may have regarding this matter. Thank you for your continued assistance on this matter.

c: Dave Heavener, Mike Konopka

CONSTRUCTION CONTRACT
RFP Number 7931
for
Tinker Elementary School Roof Replacement
between
City of Waterbury
and
Silktown Roofing, Inc.

THIS CONTRACT, effective on the date signed by the Mayor, is by and between the CITY OF WATERBURY, City Hall, 235 Grand Street, Waterbury, Connecticut (the "City") and Silktown Roofing, Inc., located at 27 Pleasant Street, Manchester, Connecticut, a duly registered Connecticut Corporation (the "Contractor").

WHEREAS, the City's purchases under the Agreement will be funded by monies received by the City through the State of Connecticut, Department of Administrative Services (DAS), Office of School Construction Grants and Review (OSCG&R); and

WHEREAS, the Contractor submitted a bid to the City in response to **Request for Proposal ("RFP") Number 7931** for roof replacement and associated work at Tinker Elementary School using existing architectural designs; and,

WHEREAS, the City accepted the Contractor's bid for **RFP Number 7931;** and

WHEREAS, the City desires to obtain the Contractor's services for roof replacement and associated work at Tinker Elementary School using existing architectural designs pursuant to the terms set forth in this Contract (the "Project").

NOW THEREFORE, THE PARTIES AGREE AND COVENANT AS FOLLOWS:

1. Scope of Services. The Contractor shall furnish all of the labor, services, equipment, materials, supplies, transportation, and incidentals necessary to complete the Project as specified in this agreement (also referred to herein as "Contract") and such shall be completed in a satisfactory manner, as reasonably determined by the City. All labor, services, equipment, materials, supplies, transportation, and incidentals shall comply with **(i)** any and all applicable local, state and federal laws, statutes, ordinances, rules and regulations, including without limitation all notice requirements thereunder, and **(ii)** generally accepted professional standards.

1.1. The Project consists of roof replacement and associated work at Tinker Elementary School using existing architectural designs as detailed and described in the Bid Documents in **Attachment A** and which are hereby made material provisions of this Contract. **Attachment A** shall consist of the following, which are attached hereto, are acknowledged by the Contractor as having been received, or otherwise hereby incorporated by reference as noted below, and all are made a part hereof:

1.1.1. Project plans, specifications, drawings, supplementary conditions
1.1.2. Bid Forms, including the City's Bid documents and the Contractor's responses
1.1.3. any and all amendment(s) and Change Orders, issued by the City after execution of Contract (incorporated by reference)
1.1.4. Non-Collusion Affidavit; Debarment Certificate
1.1.5. Performance Bond and Payment Bond
1.1.6. Certificates of Insurance
1.1.7. All applicable Federal, State and local statutes, regulations charter and ordinances (incorporated by reference)
1.1.8. All permits and licenses (incorporated by reference)

1.2. The entirety of **Attachment A** plus this executed instrument are together deemed the Contract Documents (hereinafter collectively referred to as "Contract Documents"). The City's record copy of the Contract Documents shall control and shall be effective and binding on the Contractor. In the event that any provision in the Contract Documents conflict with any other provision therein, the provision in the component part of the Contract Document first enumerated below shall govern over any other component part which follows it numerically.

i. Contract Amendment(s) and Change Orders
ii. Contract
iii. Contractor's Bid Form
iv. Federal, State, and local laws, regulations, charter and ordinances
v. Technical Specifications
vi. Drawings

2. Representations Regarding Qualification and Accreditation. The Contractor represents that its employees are licensed to perform the scope of work set forth in this Contract. The Contractor further represents that its employees have the requisite skill, expertise and knowledge necessary to perform the scope of work required under the terms of this Contract, including any supplementary work and the City relies upon Contractor's representations.

2.1. Representations regarding Personnel. The Contractor represents that it has, or will secure at its own expense, all personnel required to perform the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the City, unless use of City employees or of personnel having a contractual relationship with the City is approved in writing. As set forth above, all the services required hereunder shall be performed by the Contractor or under its supervision and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under state or local law to perform such services.

2.2. Representations regarding Qualifications. The Contractor hereby represents that, to the extent required by Federal, State and Local statutes, regulations, codes, ordinances, and policies, that the Consultant and/or its employees be licensed, certified, registered, or otherwise qualified, the Consultant and all employees providing services under this Contract, are in full compliance with those statutes, regulations and

ordinances. Upon City request, the Consultant shall provide to the City a copy of the Consultant's licenses, certifications, registrations, etc.

3. Responsibilities of the Contractor. The Contractor agrees to properly implement the services required in the manner herein provided. The Contractor shall, in addition to any other responsibilities set forth in this Contract and the Schedules and Attachments hereto, perform the following coincident with the performance of this Contract:

3.1. Due Diligence Obligation. The Contractor acknowledges its responsibilities to examine and to be thoroughly familiar with the City's bid document, including, but not limited to the plans, specifications, drawings and any addenda thereto. The Contractor hereby warrants and represents that prior to the submission of its proposal during the bid process it reviewed or was afforded opportunity, by the City, to review all physical items, facilities, services and functions essential to the satisfactory performance of the services required ("Due Diligence") and thereby certifies that all such items facilities, services and functions are included in this Contract and thereby warrants that:

3.1.1 it conducted or had opportunity to conduct all due diligence prior to the submission of its bid and, accordingly, any additional costs, services or products resulting from the failure of the Contractor to complete Due Diligence prior to submission of its bid proposal shall be borne by the Contractor. Furthermore, the Contractor had the opportunity during the bid process to ask questions it saw fit and to review the responses from the City;

3.1.2 its failure or omission to make investigation and verification of data shall, in no way, be cause for future claim of ignorance of such data or conditions nor shall such failure to investigate and verify be the basis for any claim whatsoever, monetary or otherwise;

3.1.3 it is solely responsible for resolving any issues resulting from its failure to conduct due diligence and it shall assume any and all resulting costs it incurs during the Project;

3.1.4 it was responsible for specifying any changes and disclosing any associated new costs prior to submittal of its bid. In the event the Contractor failed to disclose any such new cost prior to the submittal of its bid, the Contractor hereby covenants that it shall remain solely responsible for, and shall absorb, those non-disclosed costs;

3.1.5 it has familiarized itself with the nature and extent of the Contract Documents, Project, locality, and with all local conditions and Federal, State and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Project;

3.1.6 it has given the City written notice of any conflict, error or discrepancy that the Contractor discovered in the City's bid documents and other documents for **RFP Number 7931** (collectively "Bid Documents");

3.1.7. it agrees that the Bid Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Project;

3.1.8. it has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Scope of Services which were utilized in the preparation of the plans and specifications;

3.1.9 it has made or caused to be made examinations, investigations, measurements and tests and studies of any applicable reports and related data as it deems necessary for ensuring performance of the Scope of Services at the Contract Price within the Contract Time and in accordance with the other terms and conditions of the Contracts; and certifies no additional examinations, investigations, tests, reports or similar data are or will be required by Contractor for such purposes; and

3.1.10 The Contractor shall not take advantage of any obvious error or apparent discrepancy in the Contract. Notice of any error or discrepancy discovered shall be given immediately in writing to the City, who shall make such corrections and interpretations as it may deem necessary for the completion of the Project in a satisfactory and acceptable manner.

3.2. Safety. Contractor shall perform all work in a safe manner in full compliance with local, state and federal health and safety regulations. Contractor shall immediately correct any dangerous condition caused by or resulting from its work. If it fails to correct, or to act diligently to correct, any condition which the City reasonably believes to be a hazard to persons or property, then immediately upon oral or written notice to any supervisory or similar personnel of Contractor, City may, but shall not be required to, correct same at Contractor's expense. City shall confirm to Contractor in writing any oral notice given within five (5) business days thereafter.

3.3. Storage. In the event the Project site has insufficient, inadequate, and/or improper storage space, it shall be the responsibility of the Contractor to secure, provide and maintain at the Contractor's sole cost and expense **(i)** adequate off-site storage space for equipment, materials, incidentals, etc., and **(ii)** all associated delivery and transportation services. In either event, the Contractor shall assume full responsibility for equipment, materials, incidentals, etc. until both title and risk of loss pass to the City pursuant to Section 8 of this Contract.

3.4. Working Hours. To the extent the Contractor is required to be on City property to render the Contractor's services hereunder, the Contractor shall coordinate its schedule so that work on and at the Project site is performed during the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturday, Sunday and legal holidays unless more exactly specified elsewhere in this Contract or **Attachment A** or unless prior written permission is obtained from the City to work during other times. This provision shall not excuse the Contractor from timely performance under the Contract.

3.5. Cleaning Up. The Contractor shall at all times keep the Project site free from accumulation of waste materials or rubbish caused by Contractor's employees or subcontractors, and at the completion of the work shall remove all rubbish from and about the Project and all tools, scaffolding and surplus materials and shall leave the Project site "broom clean" or its equivalent, unless more exactly specified. In case of dispute, the City may remove the rubbish and charge the cost to the Contractor.

3.6. Publicity. Contractor agrees not to deliberately disclose the fact that the City has entered into or terminated this Contract or disclose any of the terms of the Contract or use the City's name in connection with any publicity, unless the City gives prior written consent to such use of the City's name in each instance.

3.7. Standard of Performance. All Contractor labor, materials, supplies, components, equipment, reports, plans, specifications, drawings, deliverables, incidentals, etc., required to be furnished or delivered under this Contract shall conform in all respects with the requirements set forth in this Contract and shall meet or exceed those standards generally recognized in the Contractor's craft and trade in the State of Connecticut. City specified manufacturer and/or brand name substitution desired by the Contractor shall be made only with the prior written consent of an authorized representative of the City's Using Agency.

3.7.1 In carrying out the Project, the Contractor must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor, nor with the normal routine of the institution or agency operating at the Project site.

3.8. Contractor's Employees. The Contractor shall at all times enforce strict discipline and good order among its employees, and shall not employ on the work any unfit person or anyone not skilled in the work assigned. The Contractor shall not, without the prior written approval of the City's Using Agency, substitute, terminate, replace or otherwise remove any Contractor employee expressly named, identified or required in this Contract.

3.9. Subsurface/Unknown Site Conditions. If Project site conditions are encountered which are **(i)** subsurface or otherwise concealed physical conditions or other conditions which differ materially from those indicated in the Contract Documents, or **(ii)** unknown conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent or common in construction activities of the character provided for in this Contract, then prompt notice by the observing party shall be given to the other party to this Contract before Project site conditions may be disturbed. The Contractor shall thereafter wait for written instructions from the City before proceeding with regard to such conditions.

3.10. Surveys. All surveys required under this Contract shall be performed by a State of Connecticut duly licensed land surveyor. Unless expressly stated to the contrary in Section 1 of this Contract and **Attachment A**, the Contractor shall perform all layout work, all field measurements and all construction staking required, necessary or

prudent for the satisfactory prosecution of the Contractor's obligations under this Contract.

3.11. Permits and Licenses. Unless expressly stated to the contrary in Section 1 of this Contract and **Attachment A**, the Contractor shall secure and obtain all permits and all licenses required, or necessary, or prudent for the performance of the Contractor's obligations under this Contract, and for the City's occupancy, use, and operation of the Project.

3.12. Manufacturer's Directions. Where it is required in this Contract that materials, products, processes, equipment or the like be installed or applied in accord with manufacturer's directions, specifications or instructions, it shall be construed to mean that the said application or installation by the Contractor shall be in strict accord with printed instructions furnished by the manufacturer of the material concerned for use under conditions similar to those at the Project site. One (1) copy of such instructions shall be furnished to the City.

3.13. Review by the City. The Contractor shall permit the City and the City's duly authorized representatives and agents to review, at any time, all work performed under the terms of this Contract at any stage of the Project.

3.14. Records Maintenance. The Contractor shall maintain or cause to be maintained all records, books or other documents relative to charges, costs, expenses, fees, alleged breaches of the Contract, settlement of claims or any other matter pertaining to the Contractor's demand for payment.

4. Responsibilities of the City and City Reservation of Rights. Upon the City's receipt of Contractor's written request for specific information, the City will provide the Contractor with existing documents, data and other materials the City agrees are necessary and appropriate to the services to be performed by the Contractor hereunder and the City will endeavor to secure, where feasible and where the City agrees it is necessary and appropriate, materials or information from other sources requested by the Contractor for the purpose of carrying out the services under this Contract.

4.1. The City may, in its sole discretion, designate person(s) to act as the City's Project Engineer(s) and/or Manager(s) and the City may, in its sole discretion, define such person(s) authority and responsibilities.

4.2. The City reserves the right to **(i)** perform work related or unrelated to the Project with the City's own forces adjoining, adjacent to, or in the vicinity of, the Project site and/or **(ii)** let separate contracts related or unrelated to the Project for work and services adjoining, adjacent to, or in the vicinity of, the Project site. In such event, the Contractor shall afford all such parties reasonable opportunity for storage of materials and equipment and for the uninterrupted provision and delivery of such parties' work and/or services. The Contractor shall cooperate with such parties and in the case of a dispute, the decision of the City shall be complied with by all.

5. Contract Time. Contract Time. The Contractor shall Substantially Complete all work and services required under this Contract within **seventy five (75) consecutive calendar days** of the City's written Notice to Proceed and shall reach Final Completion within **one hundred twenty (120) consecutive calendar days** of the City's written Notice to Proceed ("Contract Time").

5.1. Within one (1) week of the City's issuance of its written notice to proceed, and prior to the commencement of any work on the Project site, the Contractor shall submit for the City's written approval a construction progress schedule. On a monthly basis, the Contractor shall deliver to the City a written status report setting forth an analysis and critique of the Contractor's compliance with said schedule.

5.2. Delay Damages

5.2.1 Time is and shall be of the essence for all Project Phase Completion Dates, Milestones, Substantial and Final Completion Date. The Contractor further agrees that the Project shall be prosecuted regularly, diligently and uninterruptedly and at such rate of progress as will insure full completion thereof within the Contract time stated above. It is expressly understood and agreed, by and between the Contractor and City, that the Phase Completion Dates, Milestones, Substantial and Final Completion Date are reasonable for the completion of the Project.

5.2.1.1 The Contractor shall pay to the City the sum of Five Hundred Dollars ($500.00) per calendar day for each and every calendar day for which the Contractor is in default in completing the work beyond the Final Completion Date, Substantial Completion Date, Milestones and Phase Completion Dates, as set forth in Section 5, or the actual damages incurred by the City caused by the delay. The preceding sum is hereby agreed upon not as a penalty, but as delay damages for the delay that the City shall suffer due to such default.

5.2.1.2 The City shall have the right to recover all damages pursuant to any remedy at law or equity including but not limited to deducting the amount of any such damages from any monies due the Contractor under this Contract. The Contractor understands that if the entire Work or of any portion of the Work that the City has agreed to accept separately, if any, is not attained by the applicable completion dates as set forth in the entire Section 5, the City will suffer damages, which are difficult to specify accurately and ascertain. Delay damages based upon delay shall be assessed to compensate the City for all actual loss sustained by the delay, including, but not limited to, loss of use, increased cost of material or services to complete the project, loss of State funding, all other another actual expense, and all other damages allowed by law, including attorney's fees.

5.3 No Damage for Delay

In no event shall the Contractor be entitled to any compensation or recovery of any damages in connection with any Delay, including, without limitation, consequential damages, lost opportunity damages, attorney's fees or other, similar remuneration. The City's exercise of any of its rights or remedies under the Contract Documents, including without limitation, ordering changes in the Work, or directing suspension, rescheduling or correction of the Work, regardless of the extent or frequency of the City's exercise of these rights has been contemplated by the parties and shall not be construed as an exception.

6. Compensation. The City shall compensate the Contractor for satisfactory provision of all of the goods and services set forth in this Contract as follows in this Section 6. No claims for additional compensation will be considered for conditions made known to the Contractor prior to bidding. No claims for additional compensation will be considered on account of failure of the Contractor to completely inform itself as required herein above.

6.1. Fee Schedule. Subject to retainage, limitations, etc. set forth below in this Section 6, the fee payable to the Contractor shall not exceed **Eight Hundred Seventy-Six Thousand Dollars ($876,000.00)** (hereafter referred to as "Total Compensation") with the basis for payment being Contractor's Bid set forth in **Attachment A's** "Revised Price Proposal, dated March 6, 2024."

6.1.1 Base Bid …….$ 826,000
Owner Contingency Allowance …..…….…….$ 50,000
TOTAL …….……$ 876,000

6.2. Retainage. At the City's sole discretion, it hereby reserves the right to withhold as retainage 5% percent of any payment (or monetary sum otherwise required by law) owed to the Contractor to be withheld from payments to the Contractor otherwise payable to the Contractor until such time as the Contractor's work and services to be provided under this Contact are fully completed and accepted in writing by the City. The retainage does not does not include additional sums that the City may withhold due to the Contractor's failure to comply with provisions of this Contract.

6.3. Limitation of Payment. Compensation to the Contractor is limited to those fees set forth in Section 6.1. of this Contract and is further limited to work **(i)** performed in fact, **(ii)** conforming with this Contract, and **(iii)** accepted in writing by a duly authorized City employee. Such compensation shall be paid by the City upon its review and approval of the Contractor's invoices for payment and review of the Contractor's work.

6.3.1 Funding. In the event this Contract is funded, in whole or in part, by Federal and/or State monies, grants, loans, etc, all City payment(s) shall fully

comply with all relevant Federal and State statutes and regulations. In the event this Contract is 100% funded by Federal and/or State monies, grants, loans, etc., the aggregate sum of all City payments shall not exceed the aggregate sum of such funding.

This Contract pertains to a project funded in whole or in part, by monies received by the City through the State of Connecticut, Department of Administrative Services (DAS), Office of School Construction Grants and Review (OSCG&R).

Contractor is required to comply with all applicable Federal statutes, executive orders, regulations, rules and interpretive guidance issued by the U.S. Treasury Department, U.S. Office of Management and Budget or any other Federal agency.

This Contract is subject to 2 C.F.R. Part 180 OMB Guidelines to Agencies on Government Debarment and Suspension and the U.S. Treasury's implementing regulations set forth at 31 C.F.R. Part 19 Government Debarment and Suspension.

A listing of Federal Requirements and Representations that Contractor must comply with are set forth in Attachment A to this Contract.

6.3.2 The Contractor and its affiliates are hereby provided with notice that the City reserves the right, in the City's sole discretion, to offset, withhold, or otherwise reduce City payment(s) to the Contractor, in an amount equaling the sum or sums of money the Contractor and/or its affiliates is/are, or become delinquent or in arrears on, regarding the Vendor's and/or its affiliates real and personal property taxes and other payment obligations to the City.

6.4. Bid Costs. All costs of the Contractor in preparing its bid for **RFP Number 7931** shall be solely borne by the Contractor and are not included in the compensation to be paid by the City to the Contractor under this Contract or any other agreement.

6.5. Payment for Services, Materials, Appliances, Employees. The Contractor shall be responsible to the City for the suitability of services, materials and equipment furnished to comply fully with the requirements set forth in this Contract. The Contractor shall promptly pay all employees as their pay falls due, shall pay promptly as they fall due all bills for subcontractors, materials, supplies and services going into the work, and all bills for insurance, bonds, Worker's Compensation coverage, Federal and State Unemployment Compensation, and Social Security charges applicable to this Project. Before final City payment is made, the Contractor shall furnish to the City a sworn, notarized, affidavit stating that all of the foregoing payment obligations have been fully completed.

6.6. Liens. Neither the City's final payment nor any part of the retained percentage, if any, shall become due until the Contractor, if required by the City, shall deliver to

the City a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof, and, if required, in either case, an affidavit that so far as the Contractor has knowledge or information, the releases and receipts include all the labor and material for which a lien could be filed; but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the City, to indemnify it against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the City all moneys that the City may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

6.7. Contractor's Certificate of Completion. Upon the Contractor's **(i)** completion of all Project milestones, and **(ii)** Substantial Completion of the Project, and **(iii)** Final Completion of the Project, the Contractor shall, in each instance, file with the City a written, notarized affidavit setting forth the amount of Project work performed. The City reserves the right to verify or challenge by any reasonable means the accuracy of said affidavit.

6.8. Final Payment. All prior estimates and City payments, including those relating to extra or additional work, retainage(s), and holdback(s), shall be subject to correction by this final payment which is throughout this Contract called "Final Payment". No payment, final or partial, shall act as a release to the Contractor or its surety from any Contractor obligation(s) under this Contract.

6.9. Clean Water Fund Project Requirements. In the event this Contract is funded in whole or in part, is reliant upon, or falls within the jurisdiction of the Clean Water Fund and its statutes, regulations and rules, the Contractor shall:

6.9.1 submit Applications for Payment in accordance with the following:

The City must receive the Contractor's Application for Payment by the City's or its designee's, review and recommendation for payment, by the fifteenth calendar day of the month to receive payment within the next 50 days. If not received by the fifteenth calendar day of the month, payment can not be made until 50 days after the fifteenth calendar day of the subsequent month. The Contractor shall provide at the City's request, reasonable documentation to substantiate Contractor's Application for Payment.

6.9.2 Progress and Final Payments

The City will make progress payments on account of the Contract Price on the basis of the Contractor's Applications for Payment, monthly during construction as provided below. All progress payments will be on the basis of the progress of the Scope of Services as determined by the City, according to the schedule of values provided for in the Contract Documents, and approved by the City. Prior to Substantial Completion, progress payments will be limited to an amount equal to 95 percent of the value of the Scope of Services completed. Upon Substantial Completion, the City will pay the amount as specified in the Contract Documents.

7. Warranty of the Contractor. The Contractor warrants to the City that all materials, supplies, components, equipment, etc. furnished under this Contract shall be new and of good quality, except as otherwise expressly stated and permitted by the City elsewhere in this Contract. The Contractor warrants that none of its work shall be defective. The Contractor shall be liable to repair and install and/or replace without charge any service, component, equipment or part thereof which is defective or does not conform with this Contract within the greater of **(i)** 730 calendar days after the City delivers its written notice of its acceptance of the Project and statement therein establishing the final completion date, or **(ii)** that time period or date expressly stated elsewhere in this Contract or **Attachment A**. The City shall also receive the full benefit of the Manufacturing Warranty included in Attachment A hereto.

7.1. The Contractor further warrants that all materials, supplies, services, components, equipment, reports, plans, drawings, deliverables, incidentals, etc., shall be free from any and all defects caused by faulty design, faulty material or poor workmanship. The Contractor shall supply to the City copies of any written manufacturer's warranties and guarantees. The Contractor's foregoing warranty obligations are in addition to, and not a limitation of, all manufacturer's warranties and guarantees, and any other remedy stated in this contract or otherwise available to the City under applicable law.

8. Passing of Title and Risk of Loss.

8.1. City beneficial use of Project equipment, materials, site-work, etc. prior to the Contractor's final completion of the Project or prior to the City's final payment for the Project shall neither act to vest title in the City nor act to transfer risk of loss from the Contractor to the City. Said title and risk shall pass to the City upon the City's final payment for the Project.

8.2. Contractor and its insurer shall assume the risks of loss or damage to the equipment up to and including the date title passes, except that City shall be responsible for loss or damage caused by City's gross negligence.

8.3. After Project equipment, materials, etc. are delivered to the Project work-site and become operable or functional, the Contractor shall not thereafter remove any such equipment, materials, etc. from the Project work-site without securing the prior written consent of an authorized City Using Agency employee.

9. Indemnification.

9.1. The Contractor shall indemnify, defend, and hold harmless the City, City's Boards, and Board of Education, commissions, agents, officials and employees from and against all claims, suits, damages, losses, judgments, costs and expenses including attorney's fees arising out of or resulting from the delivery of the labor, services, equipment, materials, reports, plans, specifications, design, drawings, deliverables, incidentals, etc. provided that any such claims, suits, damages, losses, judgments, costs or expenses **(i)** are attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including the loss of use resulting there from, **(ii)** are alleged to be caused in whole or in part by any willful, intentional, negligent, or

reckless act or omission of the Contractor, its employees, any subcontractor or consultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder; **(iii)** enforcement action or any claim for breach of the Contractor ’s duties hereunder or **(iv)** claim for intangible loss(es) including but not limited to business losses, lost profits or revenue, regardless of whether or not it is caused in part by a party indemnified hereunder.

9.2. In any and all claims against the City, Board of Education or any of City’s boards, agents, employees or officers by the Contractor or any employee of the Contractor , any subcontractor or consultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 9 above, shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under Worker's Compensation Acts, disability benefit acts or other employee benefit acts.

9**.3**. The Contractor understands and agrees that any insurance required by this Contract, or otherwise provided by the Contractor , shall in no way limit the responsibility to indemnify, defend, keep and hold harmless the City, the Board of Education, any of City’s boards, agents, employees as provided in this Contract.

9.4. The Contractor expressly understands and agrees that any performance bond or insurance protection required by this Contract, or otherwise provided by the Contractor, shall in no way limit the responsibility to indemnify, keep and save harmless and defend the City and the City’s boards, agents, employees or officers as provided herein.

9.5. Royalties and Patents. The Contractor shall, for all time, secure to the City the free and undisputed right to the use of any and all patented articles and methods used in the work and shall defend at Contractor's own expense any and all suits for infringement or alleged infringement of such patents, and in the event of adverse award under patent suits, the Contractor shall pay such awards and hold the City harmless in connection with any patent suits that may arise as a result of installations made by the Contractor and as to any award made thereunder.

9.6. In the event this Contract and/or the Contractor's, or its subcontractor, work and services provisioned hereunder is/are subject to the provisions of any Federal or State statute or regulations, or the City Charter or City Ordinance, the Contractor shall indemnify, defend and hold harmless the City from any fine, penalty or other amounts imposed on the City under said statutes, regulations, Charter or Ordinances, if caused by Contractor, or its subcontractor, omission or commission.

10. Contract Bonds. The Contractor shall furnish to the City, prior to the execution of this Contract by the City, both a performance bond and a payment bond, each bond written for a penal sum equaling the Section 6 "Total Compensation" amount in a form and with a surety acceptable to the City. The bonds shall continue in effect for the greater of **(i)** the warranty

period set forth in Section 7 of this Contract, or **(ii)** 365 calendar days after the Final Completion Date referenced elsewhere in this Contract.

11. Contractor's Insurance.

11.1. The Contractor shall not commence work under this Contract until all insurance required under this Section 11 has been obtained by the Contractor and such insurance has been approved by the City. The Contractor shall not allow any subcontractor to commence work on any subcontract until all insurance required of any such subcontractor has been so obtained and approved by the City. Insurance shall be provided by insurers, satisfactory to the City and authorized to do business in the State of Connecticut, an "A-" Best's Rating and at least a Class V3 or better financial size category as shown in the most current A.M. Best Company ratings.

11.2. At no additional cost to the City, the Contractor shall purchase and maintain the insurance coverages set forth below which shall protect the City from claims which may arise out of or result from the Contractor's obligation under this Contract, whether such obligations are the Contractor's or subcontractor or person or entity directly or indirectly employed by said Contractor or subcontractor, or by any person or entity for whose acts said Contractor or subcontractor may be liable.

11.3. Each insurance policy shall state that the insurance company shall agree to investigate and defend the insured against all claims for damages, even if groundless. If any insurance required herein is to be issued or renewed on a claims made form as opposed to an occurrence form, the retroactive date for coverage shall be no later than the commencement date of this Contract and shall provide that in the event of cancellation or non-renewal, the discovery period for insurance claims ("Tail Coverage") shall be available for at least 60 months.

11.4. The following policies with stated limits shall be maintained, in full force and effect, at all times during which the services are to be performed by the Contractor:

11.4.1 General Liability Insurance: $1,000,000.00 per occurrence, **$2,000,000.00** aggregate and **$2,000,000.00** Products and completed operations aggregate
Providing coverage to protect the City for all damages arising out of bodily injuries, sickness to or death of all persons in any one accident or occurrence and for all damages arising out of destruction of property in any one accident or occurrence.

11.4.2 Automobile Liability Insurance: **$1,000,000.00** combined single limit (CSL) each Accident
Providing coverage to protect the City with respect to claims for damage for bodily injury and or property damage arising out of ownership, maintenance, operation, use or loading and unloading of any auto including hired & non-owned autos.

11.4.3 Workers' Compensation: Statutory Limits within the State of Connecticut: Employers' Liability:
EL Each Accident **$1,000,000.00**
EL Disease Each Employee **$1,000,000.00**
EL Disease Policy Limit **$1,000,000.00**

Contractor shall comply with all State of Connecticut statutes as it relates to workers' compensation.

11.4.4 Excess/Umbrella Liability Insurance: Excess or Umbrella insurance coverage that follows form or sits over General Liability, Automobile Liability and Workers Compensation insurances**. $10,000,000.00** each occurrence and **$10,000,000.00** Aggregate.

11.5. Failure to Maintain Insurance: In the event the Contractor fails to maintain the minimum required coverage as set forth herein, the City may at its option purchase same, and offset the Contractor's invoices for the cost of said insurance.

11.6. Cancellation: The City of Waterbury shall receive written notice of cancellation from the Contractor at least thirty (30) calendar days prior to the date of actual cancellation, regardless of the reason for such cancellation.

11.7. Certificates of Insurance: The Contractor's General, Automobile, Builder's Risk and Excess/Umbrella Liability Insurance policies shall be endorsed to add the City and Board of Education as an additional insured and provide waiver of subrogation on all policies. The insurance afforded the additional insured shall be primary and non-contributory insurance and the coverage and limits provided under the Contractor's policies shall not be reduced or prorated by the existence of any other insurance applicable to any loss the additional insured may have suffered. Prior to the execution of this Contract by the City, the Contractor shall furnish to the City, subject to City approval, certificate(s) of insurance and Additional Insured Endorsement and Waiver of Subrogation Endorsement verifying the above coverages, including the naming of the City of Waterbury, as follows: **"The City of Waterbury and Board of Education are listed as additional insured on a primary and non-contributory basis on all lines of coverage except Workers Compensation. All polices shall include a Waiver of Subrogation."** The City's Invitation to Bid Number must be shown on the certificate of insurance to assure correct filing. The Contractor must supply replacement/renewal certificates at least 30 days prior to the expiration of the policy(ies). Said certificates shall contain a provision that coverage afforded under the policies shall not be cancelled or reduced for any reasons unless notice of than thirty (30) calendar days has been mailed to the City's Using Agency and a copy to the City's Office of Corporation Counsel, 235 Grand Street, Waterbury, CT 06702.

11.8. No later than thirty (30) calendar days after Contractor receipt, the Contractor shall deliver to the City a copy of the Contractor's insurance policies and endorsements and riders.

12. Conformance with Federal, State and Other Jurisdictional Requirements. By executing this Contract, the Contractor represents and warrants that, at all pertinent and relevant times to the Contract, it has been, is and will continue to be in full compliance with all applicable statutes, acts, ordinances, guidelines, resolutions, orders, judgments, decrees, injunctions, rules, and regulations of all government authorities applicable to performance by the Contractor of services hereunder, including those having jurisdiction over its registration and licensing to perform services hereunder; including, but not limited to, the following: EQUAL EMPLOYMENT OPPORTUNUTY; COPELAND ANTI-KICKBACK ACT, as supplemented in the Department of Labor Regulations (29 CFR, Part 3); DAVIS BACON ACT as supplemented by Department of Labor Regulations (29 CFR Part 5); Section 103 and 107 of the Contract Work Hours and Safety Standards Act, as supplemented by the Department of Labor Regulations (29 CFR Part 5); the HOUSING and COMMUNITY DEVELOPMENT ACT of 1974, as amended; TITLE 31 and Section 12-430(7) of the State of Connecticut General Statutes. All applicable sections of the City Charter and Code of Ordinances are incorporated by reference made a part hereof.

12.1. Taxes-Federal, State and Local. The City is exempt from Federal Excise and Transportation, State and Local Sales and Use Taxes, including without limitation, taxes that would otherwise be imposed upon the Contractor for transactions required or necessitated hereunder between it and its subcontractors, suppliers, etc. The Contractor remains liable, however, for any applicable tax obligations it incurs. Moreover, the Contractor represents that the bid and pricing contained in this Contract do not include the amount payable for said taxes.

12.2. Labor and Wages-Federal and State. The Contractor and its subcontractors shall conform to Federal and State of Connecticut labor laws, and all other laws, ordinances, and legal requirements affecting the work in Connecticut.

12.2.1 The Contractor is aware of, and shall comply with, the provisions of Title 31, §53 of the Connecticut General Statutes, latest revision (the "Act"), concerning the payment of minimum wages for work on public facilities. The provisions of the Act are hereby incorporated by reference and made a part of this Contract. The Act provides that the Connecticut prevailing wage law applies to certain remodeling, refurbishing, alteration, repair and new construction. The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in Conn.Gen.Statute 31-53(i), shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each pay day.

12.2.2 The Contractor is aware of, and shall comply with, the provisions of the Federal Davis-Bacon Act, the American Rescue Plan Act of 2021 (ARPA) and the Federal American Recovery and Reinvestment Act of 2009, the provisions of all acts hereby incorporated by reference and made a part of this Contract. The Federal Davis-Bacon Act provides that Federal wage rate laws apply to certain federally funded contracts. The American Recovery and Reinvestment Act ("ARRA") and the American Rescue Plan Act of 2021 provides that Federal wage rate laws apply to all such funded contracts regardless of the contract's dollar value.

12.3. Compliance with Chapters 34, 38, and 39 of the Code of Ordinances of the City. By executing this Contract, the Contractor represents and warrants that, at all pertinent and relevant times to the Contract, it has been, is and will continue to be in full compliance with the provisions of Chapters 34, 38, and 39 of the Code of Ordinances of the City and well as any other relevant provisions of the Charter and the Code of Ordinances.

12.4. Compliance with CONN. GEN. STAT. § 4a-60g, as amended by June 2015 Special Session Public Act 15-5.

12.4.1 Definitions – For purposes of this paragraph:

i. "Small contractor" means any contractor, subcontractor, manufacturer, service company or nonprofit corporation (A) that maintains its principal place of business in the state, (B) that had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year prior to such application, and (C) that is independent. "Small contractor" does not include any person who is affiliated with another person if both persons considered together have a gross revenue exceeding fifteen million dollars.

ii. "Minority business enterprise" means any small contractor (A) fifty-one per cent or more of the capital stock, if any, or assets of which are owned by a person or persons who (i) exercise operational authority over the daily affairs of the enterprise, (ii) have the power to direct the management and policies and receive the beneficial interest of the enterprise, (iii) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, and (iv) are members of a minority, as such term is defined in subsection (a) of section 32-9n, or are individuals with a disability, or (B) which is a nonprofit corporation in which fifty-one per cent or more of the persons who (i) exercise operational authority over the enterprise, (ii) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, (iii) have the power to direct the management and policies of the enterprise, and (iv) are members of a minority, as defined in this subsection, or are individuals with a disability.

iii. "Municipal public works contract" means that portion of an agreement entered into on or after October 1, 2015, between any individual, Contractor or corporation and a municipality for the construction,

rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees but excluding any project of an alliance district, as defined in section 10-262u, as amended by this act, financed by state funding in an amount equal to fifty thousand dollars or less.

12.4.2 The Contractor and subcontractor shall comply with the specific requirements of the State of Connecticut Set Aside Program, CONN. GEN. STAT. § 4a-60g, as amended by June 2015 Special Session Public Act 15-5, if the municipal public works contact awarded to the Contactor is funded in whole or in part by state funds.

13. Discriminatory Practices. In performing this Contract, the Contractor shall not discriminate against any employee or applicant for employment, with respect to his or her hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, sex, age, religious creed, disability, national origin or ancestry, marital status, family status, prior psychiatric treatment, health care, military status or source of income or because of a handicap that is unrelated to the employee's or the applicant's ability to perform the duties of a particular job or position. Subcontracts with each subcontractor shall contain a provision requiring non-discrimination in employment as herein specified. This covenant is required pursuant to §93.04 of the Code of Ordinances of the City and any breach thereof may be regarded as a material breach of this Contract. Said provisions with subcontractors shall require conformity and compliance with all local, state and federal laws, rules and regulations and Executive orders pertaining to discrimination and equal opportunity requirements.

13.1. Discrimination Because of Certain Labor Matters. No person employed on the work covered by this Contract shall be discharged or in any way discriminated against because such person has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or related to the labor standards applicable hereunder to its employer.

13.2. Equal Opportunity. In its execution of the performance of this Contract, the Contractor shall not discriminate and shall comply with applicable laws prohibiting discrimination on the grounds of race, color, religion, sex, national origin or citizenship status, age or handicap. The Contractor agrees to comply with all local, state and federal laws, rules and regulations and Executive orders pertaining to discrimination and equal opportunity requirements, and will require the same of all subcontractors

13.3. Contractor Affirmative Action.

13.3.1. Pursuant to CONN. GEN. STAT. § 4a-60, as amended by June 2015 Special Session Public Act 15-5, the following are required for every Municipal Public Works Contract:

(a) Every contract to which an awarding agency is a party, every quasi-public agency project contract and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut; and the contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved;

(2) The contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission on Human Rights and Opportunities;

(3) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(4) The contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, as amended by this act, 46a-68e, 46a-68f and 46a-86; and

(5) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and section 46a-56, as amended by this act.

(b) If the contract is a public works contract, municipal public works contract or contract for a quasi-public agency project, the contractor agrees and warrants that he or she will make good faith efforts to employ minority business enterprises as

subcontractors and suppliers of materials on such public works or quasi-public agency project.

13.3.2. Pursuant to CONN. GEN. STAT. § 4a-60a, as amended by June 2015 Special Session Public Act 15-5, the following are required for every Municipal Public Works Contract:

(a) Every contract to which an awarding agency is a party, every contract for a quasi-public agency project and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or of the state of Connecticut, and that employees are treated when employed without regard to their sexual orientation;

(2) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(3) The contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said commission pursuant to section 46a-56; and

(4) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor which relate to the provisions of this section and section 46a-56.

14. Good Jobs Ordinance

14.1. Conformance With An Ordinance Concerning The Hiring Of Waterbury Residents On Certain Publicly-Funded Construction Projects.

14.1.1 The Contractors and its Subcontractors shall comply with the specific requirements of “An Ordinance Concerning the Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects” (the “Good Jobs Ordinance”), as may be amended from time to time and as set forth in Chapter 34 of the Code of Ordinances of the City. While the principal provisions of the

ordinance are summarized as set forth in paragraphs C-H below, the Contractor does hereby acknowledge that it has reviewed a copy of the Good Jobs Ordinance and that it has read the Ordinance and that Contractor is familiar with the obligations imposed on the Contractor and each Subcontractor by the Good Jobs Ordinance.

14.1.2 Failure of the Contractor or its Subcontractors to comply with the Good Jobs Ordinance shall be a material breach of this Agreement.

14.1.3 This paragraph shall apply to a Covered Project, as that term is defined in the Good Jobs Ordinance, in the City with a value of $500,000.00 or greater and only to the extent permitted by federal and state law.

14.1.4 Definitions. For purposes of this paragraph:

i. "Administrator" shall be defined as it is in the Good Jobs Ordinance.

ii. "Apprentice" shall be defined as it is in the Good Jobs Ordinance.

iii. "Basic Skilled Worker" shall be defined as it is in the Good Jobs Ordinance.

iv. "Contractor" shall be defined as it is in the Good Jobs Ordinance.

v. "Covered Project" shall be defined as it is in the Good Jobs Ordinance.

vi. "Hiring Goal" shall be defined as it is in the Good Jobs Ordinance.

vii. "Resident" shall be defined as it is in the Good Jobs Ordinance.

viii. "Subcontractor" shall be defined as it is in the Good Jobs Ordinance and shall include the Contractor's direct subcontractor providing construction work and all lower tiered (level) providers of construction work.

14.1.5 Hiring Goals. If this Agreement requires the Contractor to perform work on a Covered Project, the Contractor and each Subcontractor shall have as its hiring goals:

i. at least thirty percent (30%) of its total worker hours performed by City Residents, and

ii. at least twenty-five percent (25%) of construction trade jobs

shall go to Apprentices and/or Basic Skilled Workers, and

iii. at least seventy percent (70%) of all "new hires" (as that term is defined in the Good Jobs Ordinance) shall be "economically disadvantaged" individuals (as that term is defined in the Good Jobs Ordinance), and

iv. a minimum of five percent (5%) of the construction workforce labor hours will be local resident, minority artisans, and

v. a minimum of five percent (5%) of the construction workforce labor hours will be women, and

vi. a minimum of ten percent (10%) of the total work hours shall be allocated for minorities, or

vii. as may otherwise be required by any superseding Federal or State employment discrimination prohibition laws.

14.1.6 Good Faith Efforts. The Contractor and each Subcontractor shall engage in Good Faith Efforts to comply with the Hiring Goals. For the purposes of this paragraph, the term “Good Faith Efforts” shall have the same meaning as it does in the Good Jobs Ordinance.

The Contractor and each Subcontractor shall individually implement Good Faith efforts to satisfy the Hiring Goals.

14.1.7 Action Plan and Pre-Construction Meeting. Not later than fourteen (14) business days prior to the scheduled commencement date for construction, the Contractor shall submit a written plan-of-action to the City and to the Administrator of the Good Jobs Ordinance defining how the Contractor, and each Subcontractor, shall implement Good Faith Efforts to fulfill the Hiring Goals. Each plan-of-action shall include the anticipated number of job positions required for the Work. Not later than five (5) business day prior to the commencement date of construction, the Contractor must attend a mandatory "pre-construction" meeting with the City to review all plans-of-action and other relevant materials. No construction work shall proceed absent this pre-construction meeting.

14.1.8 Other Contractor Obligations. In addition to the foregoing, the Contractor shall ensure that all Subcontractor contracts and agreements expressly set forth and state as binding obligations therein, subject to appropriate party name change, the above Hiring Goals and Good Faith Efforts. The Contractor shall be accountable for, and liable to the City for, Contractor and each Subcontractor compliance with Hiring Goals and Good Faith efforts.

i. The Contractor shall meet with the Administrator no less than four (4) weeks prior to the commencement of construction on a Covered

Project and provide the Administrator with the number of job positions to be created by the project by trade and the qualifications by job tile.

ii. The Contractor shall be required to produce Contractor and Subcontractor documentation that may be required under the provisions of the Good Jobs Ordinance or that the City or the Administrator reasonably believes will assist the City or the Administrator with their evaluation of Hiring Goals and Good Faith Efforts.

iii. The Contractor shall deliver weekly certified payroll records to the City within five (5) working days of the end of each payroll period. Moreover, the Contractor shall require each Subcontractor to create weekly certified payroll records.

iv. The Contractor's and each Subcontractor's payroll records shall include the person-hours, the residential address, race, gender, hiring date, and apprentice (job) classification of all personnel employed under this Agreement and all Contracts and Sub-Contracts thereunder. The Contractor and each Subcontractor shall mark their respective final payroll period records as being final and be signed by an authorized officer or employee.

14.2 Liquidated Damages Applicable To Section 14.1

14.2.1 If the City finds that the Contractor, or a Subcontractor, has failed to achieve Hiring Goals during any five (5) day work period (Monday through Friday), the City shall:

i. issue a written notice to the Contractor specifying the matters constituting such failure and the time period within which Good Faith Efforts documentation must be delivered to the City for its evaluation.

ii. if the Good Faith documentation is not provided or, if provided, it fails to demonstrate compliance with Good Faith Efforts, the Contractor shall, for each failure by the Contractor or a Subcontractor to achieve the Hiring Goals during a full five day work period, pay to the City one thousand dollars ($1,000.00) as liquidated damages.

14.2.2 If the City finds that the Contractor, or a Subcontractor, has failed to deliver weekly certified payroll records to the City within five (5) working days of the end of each payroll period the Contractor shall, as liquidated damages pay one thousand dollars ($1,000.00) to the City for each week of ongoing violation.

14.2.3 The City shall provide the Contractor with an invoice identifying all sums due the City, as liquidated damages, as a result of the Contractor or a Subcontractor's failure to comply with the Good Jobs Ordinance as set forth above.

14.2.4 No portion of any invoice submitted by a Contractor that is subject to liquidated damages shall be paid by the City until such time as all liquidated damages relating to that invoice have been paid to the City.

14.2.5 The foregoing liquidated damages provisions shall be expressly set forth, subject to appropriate party name adjustments, as material provisions in all Contracts that the Contractor has with Subcontractors and the Contractor is obligated hereunder to enforce compliance in such Contracts with Subcontractors.

14.2.6 Any payment of liquidated damages hereunder shall not preclude a later claim, nor any later finding of a breach, or any payment of additional damages related to such later claim.

15. Housing and Urban Development Section 3 Clause. In the event this Contract is funded, in whole or in part, through Housing and Urban Development assistance, 24 C.F.R. §135.38 may apply and the Contractor shall then be required to comply with the following (referred to as the "Section 3 clause"):

15.1. The work to be performed under this Contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. § 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted Projects covered by Section 3, shall, to the greatest extent feasible, be directed to low and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

15.2. The parties to this Contract agree to comply with HUD's regulations in 24 C.F.R. part 135, which implement Section 3. As evidenced by their execution of this Contract, the parties to this Contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.

15.3. The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

15.4. The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 C.F.R. part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations

in 24 C.F.R. part 135. The Contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 C.F.R. part 135.

15.5. The Contractor will certify that any vacant employment positions, including training positions, that are filled **(i)** after the Contractor is selected but before the Contract is executed, and **(ii)** with persons other than those to whom the regulations of 24 C.F.R. part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 C.F.R. part 135.

15.6. Noncompliance with HUD's regulations in 24 C.F.R. part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

15.7. With respect to work performed in connection with Section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. § 450e) also applies to the work to be performed under this Contract. Section 7(b) requires that to the greatest extent feasible **(i)** preference and opportunities for training and employment shall be given to Indians, and **(ii)** preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this Contract that are subject to the provisions of Section 3 and section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

16. Termination.

16.1. Termination of Contract for Cause. If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner its obligations under this Contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this Contract, the City shall thereupon have the right to terminate this Contract by either **(i)** giving written notice to the Contractor of a date certain by which Contractor shall, to the written satisfaction of the City, cure after which and without further action by any party, such termination shall automatically become effective and binding, or **(ii)** giving written notice to the Contractor specifying the effective date of such termination at least five (5) business days before the effective date of such termination.

16.1.1 In the event of a termination, all finished or unfinished documents, data, studies, reports, plans, specifications, drawings, supplies, services, etc. prepared by the Contractor under this Contract shall, at the option of the City, become the City’s property, and the Contractor shall be entitled to receive just and equitable compensation for any satisfactory work completed for such.

16.1.2 Notwithstanding the above, the Contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of this Contract by the Contractor, and the City may withhold any payments to the Contractor for the purpose of setoff until such time as the exact amount of damages due the City from the Contractor is determined.

16.2. Termination for Convenience of the City. The City may terminate this Contract at any time for the convenience of the City, by a notice in writing from the City to the Contractor. If this Contract is terminated by the City as provided herein, the Contractor will be paid an amount which bears the same ratio to the total compensation as the services actually performed bear to the total services of the Contractor covered by this Contract, less payments of compensation previously made.

16.3. Termination for Non-Appropriation or Lack of Funding. The Contractor acknowledges that the City is a municipal corporation and that this Contract is subject to the appropriation and disbursement of funds by the City sufficient for this Contract for each budget year in which this Contract is in effect. The Contractor therefore agrees that the City shall have the right to terminate this Contract in whole or in part without penalty to the City in the event that sufficient funds to provide for City payment(s) under this Contract is not appropriated, not authorized, or not made available, or such funding has been reduced. In the event this Contract is subject, in whole or in part, to the appropriation and disbursement of Federal and/or State funds and those Federal and/or State funds are not appropriated or are not disbursed to the City, the Contractor hereby agrees that the City shall have the right to terminate this Contract in whole or in part without penalty to the City.

16.3.1 Effects of Non-Appropriation. If funds to enable the City to effect continued payment under this Contract are not appropriated, authorized or otherwise made available by law, the City shall have the right to terminate this Contract without penalty at the end of the last period for which funds have been appropriated, authorized or otherwise made available by law by giving written notice of termination to the Contractor.

16.3.2 Effects of Reduced Levels of Funding. If funding is reduced by law, or funds to pay the Contractor for the agreed to level of the products, services and functions to be provided by the Contractor under this Contract are not appropriated, authorized or otherwise made available by law, the City may, upon seven (7) business days written notice to the Contractor, reduce the level of the products, services or functions in such manner and for such periods of time as the City may elect. The charges payable under this Contract shall be equitably adjusted to reflect such reduced level of products, services or functions and the parties shall be afforded the rights set forth in this Contract.

16.3.3 No Payment for Lost Profits. In no event shall the City be obligated to pay or otherwise compensate the Contractor for any lost or expected future profits.

16.4. Rights Upon Termination.

16.4.1 Termination for Cause. In the event the City terminates this Contract for cause, the Contractor shall relinquish to the City any applicable interest, title and ownership including, but not limited to, perpetual use of any proprietary rights in and to the products and deliverables delivered to, in possession of and properly invoiced and paid for by (except to the extent such invoiced amount is

disputed) the City. With regard to third party products, the Contractor shall transfer all licenses which it is permitted to transfer in accordance with the applicable third party license. The City shall have no financial obligation to compensate the Contractor for such terminated products unless payment is otherwise approved by the City prior to such termination. The Contractor shall be liable for costs incurred by the City, including but not limited to reasonable attorney fees and all court awarded fees and costs incurred in terminating this Contract in whole or in part.

16.4.2 Termination for Lack of Funding or Convenience. In the event of termination by the City for lack of funding or convenience, the City shall pay the Contractor for all labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc.(including any holdbacks) installed and delivered to the City as of the Termination Date and the Contractor shall relinquish to the City any applicable interest, title and ownership including, but not limited to perpetual use of any proprietary rights in and to said labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc. delivered to, in possession of and paid for by the City (except to the extent any invoiced amount is disputed). The Contractor shall be required to exercise commercially reasonable efforts to mitigate damages. In the event of a termination for Lack of Funding or Convenience the City and the Contractor may negotiate a mutually acceptable payment to the Contractor for reasonable demobilization expenses. Said demobilization expenses, if any, shall be handled in accordance with the provision of this Contract pertaining to changes in the Project.

16.4.3 Assumption of Subcontracts. In the event of termination, the City shall have the right to assume, at its option, any and all subcontracts for products, services and functions provided exclusively under this Contract.

16.4.4 Delivery of Documents. In the event of termination, **(i)** the Contractor shall promptly deliver to the City, in a manner reasonably specified by the City, all documents and other tangible items furnished by, or owned, leased, or licensed by, the City, and **(ii)** the City shall pay the Contractor for all services performed and deliverables completed and accepted (pro-rated for deliverables partially completed) prior to the effective date of the termination (except to the extent any invoice amount is disputed).

17. Force Majeure. Contractor shall not be held responsible for delays nor be subject to liquidated damages when such delays are caused by conditions beyond its control, including without limitation:

17.1. Acts of God, fire, explosion, epidemic, cyclone, flood, war, strikes, revolution, civil commotion, or acts of public enemies; and

17.2. Change of law and order, proclamation, regulation, ordinance, or governmental requirement.

Upon cessation of work for reason of force majeure delays, Contractor shall use its best efforts to meet the schedule set forth in Section 5 of this Contract.

18. Subcontracting. The Contractor shall not, without the prior written approval of the City's Using Agency, subcontract, in whole or in part, any of the Contractor's services. Any subcontractor so approved shall be required to secure and maintain insurance coverage equal to or better than that required of the Contractor and shall name the City as an additional insured party and said subcontractors shall deliver to the City a certificate of insurance evidencing such coverages. All subcontractors shall comply with all federal, state and local, laws, regulations and ordinances but such requirement shall not relieve the Contractor from its requirement that all services provided hereunder shall comply with all Federal, State and local, laws, regulations and ordinances.

18.1. The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by the Contractor.

18.2. The Contractor is responsible for and shall control activities of its subcontractors, and the subcontractors shall consult and cooperate with one another and other contractors working on the Project site. Each subcontractor shall furnish all necessary information to other subcontractors and shall lay out and install its own work so as to avoid any delays or interferences with the work of another. Any cost for changes, cutting and/or repairing, made necessary by failure to observe the above requirements shall be borne by the Contractor or subcontractor responsible for such failure or neglect.

18.3. The Contractor shall not, without the prior written approval of the City's Using Agency, substitute, terminate, replace or otherwise remove a subcontractor.

19. Assignability. The Contractor shall not assign any interest in this Contract, and shall not transfer any interest in the same (whether by assignment or novation) without the prior written approval of the City; provided, however, that claims for money due or to become due the Contractor from the City under this Contract may be assigned to a bank, trust, company, or other financial institution, or to a Trustee in Bankruptcy, without such approval. Notice of any such assignment or transfer shall be furnished promptly to the City.

20. Audit. The City reserves the right to audit the Contractor’s books of account in relation to this Contract any time during the period of this Contract or at any time during the twelve month period immediately following the closing or termination of this Contract. In the event the City elects to make such an audit, the Contractor shall immediately make available to the City all records pertaining to this Contract, including, but not limited to, payroll records, bank statements and canceled checks.

21. Interest of City Officials. No member of the governing bodies of the City, and no other officer, employee, or agent of the City who exercises any functions or responsibilities in connection with the carrying out of the Project to which this Contract pertains, shall have any personal interest, direct or indirect, in this Contract.

22. Interest of Contractor. The Contractor covenants that it presently has no interest and shall not acquire any interest, direct or indirect, in the Project or any parcel of land therein or any other interest which would conflict in any manner or degree with the performance of its services hereunder. The Contractor further covenants that in the performance of this Contract no person having any such interest shall be employed.

23. Entire Contract. This Contract shall constitute the complete and exclusive statement of the contract between the parties as it relates to this transaction and supersedes all previous agreements and understandings, whether written or oral, relating to such subject matter. Any amendment to this Contract must be in writing and agreed to and executed by the City and the Contractor, and must comply with the City's Charter and Code of Ordinances.

24. Independent Contractor Relationship. The relationship between the City and the Contractor is that of client and independent contractor. No agent, employee, or servant of the Contractor shall be deemed to be an employee, agent or servant of the City. The Contractor shall be solely and entirely responsible for its acts and the acts of its agents, employees, servants and subcontractors during the performance of this Contract.

25. Severability. Whenever possible, each provision of this Contract shall be interpreted in such a manner as to be effective and valid under applicable law. If any provision of this Contract, however, is held to be prohibited or invalid under applicable law, such provision shall be deemed restated to reflect the original intentions of the parties, as nearly as possible in accordance with applicable law, and if capable of substantial performance, the remaining provisions of this Contract shall be enforced as if this Contract was entered into without an invalid provision. If the ruling and/or controlling principle of law or equity leading to the ruling is subsequently overruled, modified or amended by legislation, judicial or administrative action, then the provision(s) in question as originally set forth in this Contract shall be deemed valid and enforceable to the maximum extent permitted by the new controlling principal of law or equity.

26. Survival. Any provisions of this Contract that impose continuing obligations on the parties shall survive the expiration or termination of this Contract for any reason.

27. Changes in the Project: Change Orders.

27.1. Requests for Change Orders. The City reserves the right on its own volition, or based upon a proposal for a Change Order submitted in written form with a thorough explanation by the Contractor, to request from time to time any changes to the requirements and specifications of this Contract and the products to be provided and the functions and services to be performed by the Contractor under this Contract. Such changes must be authorized by the City. The City will not approve of any change orders, deletions, additions, or additional work items to the Scope of Services or any change in the terms and conditions of this Contract except by means of a City authorized amended Scope of Services, applicable and restricted to those items set forth in §1, above, or Change Order issued as set forth in this section, except in the event of an emergency endangering life or property.

27.2. Procedures.

27.2.1 The Contractor's Response to a Change Request.

i. Within thirty (30) calendar days after receipt of a request by the City for any such change or such other period of time as the Parties may mutually agree to in writing, the Contractor shall submit to the City a proposal describing any changes in Contract Milestones or Contract completion dates, products, functions, timing of delivery, assignment of personnel, and the like, and any associated price adjustment. The Contractor's proposal shall describe, in detail, the basis for the proposed price adjustment, including the charges for any products required to implement the change request.

ii. To the extent that additional cost or cost savings result from a change in required products, the Contractor shall obtain any additional products and provide them to the City at a negotiated price acceptable to the City and the Contractor. Similarly, if the change request is expected to result in a reduction in products required to perform the services, the Contractor's charges shall be reduced by the cost savings resulting from the products eliminated by the change request**.**

27.2.2 City's Acceptance of Change Request. If the City accepts the Contractor's proposal, the City shall issue a change order referencing the Contractor's proposal and both parties shall sign the change order. The Contractor shall not implement any change request until the City has issued a valid, properly executed, change order.

27.2.3 City's Rejection of Change Request. If the City does not accept the Contractor's proposal, the City may within two weeks of such non-acceptance: **(i)** withdraw its change request; or, **(ii)** modify its change request, in which case the procedures set forth above shall apply to the Contractor's response to the modified change request.

27.3. City Discretion. The City may, in its sole discretion, approve the proposed Change Order and shall forward same for additional signatures under the following conditions: **(i)** If it conforms to provisions of applicable laws, and **(ii)** if it is consistent with this Contract, and **(iii)** if the time of performance of this Contract will not be unreasonably delayed, **(iv)** the Final Completion date is not changed, **(v)** if the Change Order requires a change to the Final Completion date, such change has been authorized by an approved, executed, written Amendment to this Contract, and **(vii)** if the Change Order requires an increase in the price of the Contract, the City **(1)** has sufficient funds, and **(2)** if a budget transfer is required to cover the cost of the proposed Change Order, such transfer has secured the written approval of the Board of Aldermen and other required regulatory agencies.

27.4. Change Orders Governed by the Provisions of this Contract. All work performed under a Change Order is governed by the provisions of this Contract.

28. Conflicts or Disputes. This Contract represents the concurrence between the City and the Contractor and governs all disputes between them. In the instance of a conflict or dispute over issues not specifically referenced within the Contract, the following documents shall be used as historical documents, without regard to the order of precedence, to resolve such conflicts or disputes, as follows: **(i)** the City's **RFP Number 7931** and **(ii)** the Contractor's Bid response to **RFP Number 7931**, dated February 1, 2024, as amended. Said historical documents are attached hereto as part of **Attachment A.**

28.1. Procedure. This procedure supersedes all statements to the contrary occurring either in proposals or other prior agreements, oral or written, and all other communications between the parties relating to this subject.

28.2. Presumption. This Contract or any section thereof shall not be construed against any party due to the fact that the Contract or any section thereof was drafted by such party.

29. Disputes; Legal Proceedings; Waiver of Trial by Jury and Continued Performance. The Contractor agrees that its waives a trial by jury as to any and all claims, causes of action or disputes arising out of this Contract or services to be provided pursuant to this Contract. Notwithstanding any such claim, dispute or legal action, the Contractor shall continue to perform services under this Contract in a timely manner, unless otherwise directed by the City.

30. Binding Contract. The City and the Contractor each bind themselves, and their successors, assigns and legal representatives to the other party to this Contract and to the successors, assigns and legal representatives of such other party with respect to all covenants of this Contract.

31. Waiver. Any waiver of the terms and conditions of this Contract by either of the parties hereto shall not be construed to be a waiver of any other term or condition of this Contract.

32. Governing Laws. This Contract, its terms and conditions and any claims arising there from shall be governed by the laws of the State of Connecticut.

33. Notice. Except as otherwise specifically prohibited in this Contract, whenever under this Contract approvals, authorizations, determinations, notices, satisfactions or waivers are required or permitted, such items shall be effective and valid only when given in writing signed by a duly authorized officer of the City or the Contractor, and delivered in hand or sent by mail, postage prepaid, to the party to whom it is directed, which until changed by written notice, are as follows:

Contractor: Silktown Roofing, Inc.
27 Pleasant Street
Manchester, CT 06040

City: City of Waterbury
Chase Municipal Building
235 Grand Street
Waterbury, CT 06702

34. City Code of Ordinances, Ethics and Conflict of Interest Code, Provisions.
The Person (the term "Person" shall herein be as defined in Section 38 of the City's Code of Ordinances) supplying the labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc. under this Contract shall comply with all applicable Federal, State and Municipal statutes, regulations, charters, ordinances, rules, etc, whether or not they are expressly stated in this Contract, including but not limited to the following:

34.1. It shall be a material breach of this Contract, and, except as may be permitted by regulations or rulings of the City of Waterbury Board of Ethics it shall be a violation of the City's Code of Ordinances, for any Public Official, City Employee or Member of a Board or Commission who is participating directly or indirectly in the procurement process as set forth in the City's Code of Ordinances, including those participating in exempt transactions, to become or be the employee of any person contracting with the governmental body by whom the Official, Employee, or Board or Commission member is employed or is a member.

34.2. It shall be a material breach of this Contract, and it shall be a violation of the City's Code of Ordinances for any Person to offer, give, or agree to give any current or former Public Official, Employee or Member of a Board or Commission, or for such current or former Public Official, Employee or Member of a Board or Commission to solicit, demand, accept or agree to accept from another Person, a gratuity or an offer of employment in connection with any: decision; approval; disapproval; recommendation; preparation of any part of a program requirement or a requisition; influencing the content of any specification or procurement standard; or rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a Contract or Purchase Order, or to any solicitation or proposal therefore.

34.3. It shall be a material breach of this Contract and it shall be a violation of the City's Code of Ordinances for any payment, Gratuity, or offer of employment to be made as an inducement for the award of a subcontract or order, by or on behalf of a subcontractor, the prime Contractor or higher tier subcontractor or any Person associated therewith, under a Contract or Purchase Order to the City.

34.4. The value of anything transferred or received in violation of the City's Charter, Code of Ordinances, and/or regulations promulgated there under, by any Person subject to said Charter and/or Ordinances may be recovered by the City.

34.5. Upon a showing that a subcontractor made a kickback to the City, a prime Contractor or a higher tier subcontractor in connection with the award of a subcontract

or order there under, it shall be conclusively presumed that the amount thereof was included in the price of the subcontract or order and ultimately borne by the City and will be recoverable hereunder from the recipient. In addition, said value may also be recovered from the subcontractor making such kickbacks. Recovery from one offending party shall not preclude recovery from other offending parties.

34.6. It shall be a material breach of this Contract and it shall be a violation of the City's Code of Ordinances for a Person to be retained, or to retain a Person, to solicit or secure a contract with the City upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee; and every Person, before being awarded a City Contract, shall deliver to the City, on a City authored form, a representation that such Person has not retained anyone in violation of this subsection 34.6, the failure to deliver said form being a material breach of this Contract and a violation of the City's Code of Ordinances. Note, however, this subsection 34.6 shall not apply to full-time Employees who, as a condition of their employment, may be entitled to bonuses or other fees in accordance with their employment relationship.

34.7. The Person hereby expressly represents that he/she/it has complied with those sections of the City's Code of Ordinances requiring that said Person has **(i)** delivered to the City an affidavit, on a City authored form, stating that the Person and its affiliates have no delinquent taxes or other financial obligations owned to the City; **(ii)** filed the City authored financial disclosure statement form as set forth in the City's Code of Ordinances regarding disclosure of financial interests; **(iii)** delivered to the City a written acknowledgement, on a City authored form, evidencing receipt of a copy of the "Ethics and Conflict of Interest" ordinance for the City of Waterbury and hereby expressly represents that said Person is in full compliance with the entirety of said Code of Ordinances; and **(iv)** filed a current list of all taxable personal and real property as required by the State of Connecticut General Statutes. Any violation of this subsection 34.7 shall be deemed a material breach of this Contract and shall be a violation of the City's Code of Ordinances.

34.8. The definitions set forth in the City's Code of Ordinances shall be the primary source for interpretation of the forgoing subsections 34.1-34.7.

34.9. The Contractor is hereby charged with the requirement that it shall have knowledge of, and shall fully comply with, all relevant provisions of the City's Charter and all relevant provisions of the City's Code of Ordinances, including without limitation Chapters 93, titled "Discriminatory Practices", Chapter 38 titled "Centralized Procurement System", and Chapter 39 titled "Ethics and Conflict of Interest", of said Code as may be amended from time to time.

34.10 The Contractor hereby acknowledges receipt of a copy of the Chapters 38 and 39 of City's Ordinance regarding Procurement, Ethics, and Conflicts of Interest and has familiarized itself with said Code and hereby agrees to adhere to said Code. The text of Chapters 38 and 39 of said Code may be obtained from the Office of the City Clerk of the City and on the internet at the City Clerk's web site: https://www.waterburyct.org/services/city-clerk/code-of-ordinances [click link titled "The City of Waterbury Code of Ordinances *Revised 12/31/19".* For Chapter 38,

click on “TITLE III: ADMINISTRATION", then click on "CHAPTER 38: CENTRALIZED PROCUREMENT SYSTEM". For Chapter 39, click on "TITLE III: ADMINISTRATION", then click on "CHAPTER 39: ETHICS AND CONFLICTS OF INTEREST".

34.11. The Contractor is hereby charged with the requirement that it shall have knowledge of, and shall fully comply with, the City's Ordinance Sections 34.15 through 34.99 entitled, "Ordinance Concerning the Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects," and the State of Connecticut Legislature’s Special Act No. 01-1.

34.12. Every Person who conducts business with, contracts, with or provides commodities or services to the City, is charged with notice of the extent of the powers and authority, and the limitations thereon, of the Public Officials and Employees of the City, as set forth in the charter of the City, the Code of Ordinances and any Regulations or Policies pertaining thereto. In particular, and without implying any limitation as to its applicability, it applies to all Persons who participate in the procedures pertaining to the Centralized Procurement System as set forth in Chapter 38, and the Ethics and Conflict of Interest provisions set forth in Chapter 39 of the Code of Ordinances.

34.13. INTEREST OF CITY OFFICIALS. No member of the governing body of the City, and no other officer, employee, or agent of the City who exercises any functions or responsibilities in connection with the carrying out of the project, to which this agreement pertains, shall have any personal interest, direct or indirect, in this agreement.

34.14. PROHIBITION AGAINST CONTINGENCY FEES. The Contractor hereby represents that it has not retained anyone to solicit or secure a contract with the City upon an agreement or understanding for a commission, percentage, brokerage or contingency fee.

34.15. FREEDOM OF INFORMATION ACT NOTICE. Pursuant to State statute, in the event the total compensation payable to the Contractor set forth in Section 6 of this Contract is greater than $2,500,000.00, the City is entitled to receive a copy of any and all Contractor records and files related to the performance of this Contract and those records and files are subject to the Freedom of Information Act ("the Act") and may be disclosed by the City pursuant to the Act.

35. Definitions. Whenever the following, words, terms, etc. appear in this Contract, the intent and meaning shall be as follows:

35.1 Additional Work: Work required by the City that involves a substantial addition to, deduction from or modification of the Contract Documents.

35.2 Bid or Proposal: The form on which the bidder is to submit a bid for the Work contemplated.

35.3 Bidder: A person, partnership, corporation or other business organization submitting a bid on the form for the Work contemplated.

35.4 City: The City of Waterbury, acting directly or through specifically authorized personnel.

35.5 Construction Supervisor: An employee of the City of Waterbury, or other City duly authorized person.

35.6 Contract Time: The number of days as stated in the Contract to: (i) achieve Substantial Completion, (ii) Final Completion.

35.7 Equal: The recognized equivalent in substance and function; considering quality, workmanship, economy of operation, durability and suitability for purposes intended, and not constituting a change in the Work specified. Whenever the words "equal" or "equals" or words of like import are used, it shall be understood they mean "equal" in the opinion of the City.

35.8 Final Completion: The time at which the Project has progressed to the point where, in the opinion of the City, the Project is complete such that it is ready for final payment as evidenced by the City's, or its duly authorized City representative's, written recommendation of final payment. The terms "finally complete" and "finally completed" as applied to the Project refer to Final Completion.

35.9 Notice to Proceed: A letter from the City which shall state the date of execution of the Contract and specifically advise the Contractor to begin work on the Contract.

35.10 Plans: All drawings or reproductions of drawings pertaining to the construction of the work contemplated and its appurtenances.

35.11 Project Engineer or Manager: An employee of the City or a person, partnership, corporation or other business organization under contract with the City, commissioned to perform construction administration and inspection duties during construction.

35.12 Shop Drawings: Drawings, diagrams, schedules, performance charts, brochures and other materials prepared by the Contractor or subcontractors, manufacturers or distributors which illustrate some portion of the work.

35.13 Specifications or Technical Specifications: The description, provisions and other requirements pertaining to the materials, methods and manner of performing the Project.

35.14 Subcontractor: A person, partnership, corporation or other business organization supplying labor and/or materials for work at the site of the Project to and under agreement with the Contractor.

35.15 Substantial Completion: The time at which, in the opinion of the Engineer, the Project (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Project (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Project mean Substantial Completion thereof.

35.16 Substitution: A replacement of specified material, device or equipment which is sufficiently different in substance, function, quality or workmanship to become the subject of a Change Order.

35.17 Supplementary General Conditions: An extension to the terms, conditions, and provisions set forth in this document as additional, material, provisions of this Contract.

35.18 Work: All plant, labor, materials, services, supplies, equipment and other facilities and items necessary for, or incidental to, the completion of the terms of the Contract.

35.19 Using Agency: The City of Waterbury Board of Education

[Signature page follows]

IN WITNESS WHEREOF, the parties hereto execute this Contract on the dates signed below.

WITNESSES:

_____

_____

CITY OF WATERBURY

By:_____
Paul K. Pernerewski, Jr., Mayor

Date: _____

WITNESSES:

_____

_____

SILKTOWN ROOFING, INC.

By:_____
John C. McConville
Its President

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

Date: March 13, 2024

ATTACHMENT A

1.1.1. Project plans, specifications, drawings, supplementary conditions
1.1.2. Bid Forms, including the City's Bid documents and the Contractor's responses
1.1.3. any and all amendment(s) and Change Orders, issued by the City after execution of Contract (incorporated by reference)
1.1.4. Non-Collusion Affidavit; Debarment Certificate
1.1.5. Performance Bond and Payment Bond
1.1.6. Certificates of Insurance
1.1.7. All applicable Federal, State and local statutes, regulations charter and ordinances (incorporated by reference)
1.1.8. All permits and licenses (incorporated by reference)

INDEX TO THE SUPPLEMENTARY CONDITIONS OF THE CONTRACT

.ARTICLE NUMBER	TITLE	PAGE NUMBER
1.	PLANS AND SPECIFICATIONS AT THE SITE.....	38
2.	CONSTRUCTION PROGRESS SCHEDULE.....	38
3.	SCHEDULE OF VALUES; APPLICATION FOR PAYMENT	39
4.	PARTIAL PAYMENTS.....	39
5.	CONSTRUCTION EQUIPMENT.....	39
6.	INSPECTION AND TESTS.....	39
7.	UTILITIES.....	40
8.	PROGRESS MEETINGS.....	40

1. PLANS AND SPECIFICATIONS AT THE SITE

The Contractor shall maintain at the Project site two (2) copies of all Plans, Specifications, Addenda, approved Shop Drawings, Change Orders and other Modifications, Schedules and Instructions, in good order. One copy is to be marked to record all changes made during construction. These shall be available at all times to the Project Engineer and the City or their authorized representatives. At the conclusion of construction, the Contractor is to turn one (1) corrected set over to the Project Engineer.

2. CONSTRUCTION PROGRESS SCHEDULE

A. Within one (1) week after the Notice to Proceed, and prior to commencement of any work on site, the Contractor shall submit for the approval of the City three (3) copies of a Construction Progress Schedule which shall be developed by the Contractor through cooperation of the Project Engineer or authorized personnel. At the same time, the Contractor shall submit the Schedule of Values, Sedimentation and Erosion Control measures, Water Control Plan and Environmental Protection Plan.

B. The Progress Schedule shall indicate the proposed scheduling of the items of work listed in the various divisions of the work in the specifications. The schedule shall also indicate all subcontractors to be utilized on the Contract and the portions of the Contract that they will be performing. The Contractor shall evaluate the status of the Project at least monthly, comparing it to the original schedule which shall be revised as required.

3. SCHEDULE OF VALUES; APPLICATION FOR PAYMENT

A. Within one (1) week after the Notice to Proceed, as a basis for estimating partial payments, the Contractor shall submit for the approval of the City a certified Schedule of Values, broken down into quantities and unit costs for the various parts of the work, divided as may be directed and aggregating the total sum of the Contract; and if required, he shall submit evidence supporting this schedule.

B. The Contractor's requisition for payment shall be subdivided into items to correspond with the approved schedule and shall be in such numbers of copies as may be designated by the City.

4. PARTIAL PAYMENTS

A. The City will review the Contractor's monthly requisitions for Partial Payments to arrive at what is, in its opinion, a fair and just estimate of the materials suitably stored on the site and the amount of work performed on the Contract. At its discretion, the City may allow to be included in the monthly requisitions materials stored off the site. In the event the City allows the Contractor to include in its requisitions payments for materials stored off the site, the Contractor shall also submit any additional bonds and/or insurance certificates relating to off-site stored material, and follow such other procedures as may be required by the City.

B. In making such Partial Payments for the Project, retainage shall be held in accordance with Clean Water Funding Regulations (if applicable).

5. CONSTRUCTION EQUIPMENT

A. The Contractor shall furnish and maintain, at its own cost and risk, all tools, apparatus and appliances, hoists and/or cranes and power for same, scaffolding, runways, ladders, temporary supports and bracing and all other similar work or material necessary to insure speed, convenience and safety in the execution of its Contract. All such items shall be subject to approval of the City, upon Engineer’s recommendation, as to general stability, type and location, but the responsibility for proper design, strength and safety shall remain with the Contractor. All such items shall comply with OSHA regulations and all other applicable codes, statutes, rules and regulations.

B. The Contractor shall provide all drains, drainage, ditches and pumping apparatus (including power and attendance for same) that may be necessary to keep all excavations and subgrade work free from water.

6. INSPECTION AND TESTS

A. All material and workmanship (if not otherwise designated by the Specifications) shall be subject to inspection, examination and testing by the City and/or Project Engineer at any and all times during manufacture and/or construction and at any and all places where such manufacture and/or construction is carried on. All tests

shall be made at the Contractor's expense. Notice of the time of all tests to be made at the site shall be given to all interested parties.

B. Without additional charge, the Contractor shall promptly furnish all reasonable facilities, labor and materials necessary to make tests safe and convenient. Special, full size and performance tests shall be as described in the Specifications.

C. If, at any time before final acceptance of the entire Project, the City and/or Project Engineer considers it necessary or advisable to examine any portion of the Project already completed by removing or testing out the same, the Contractor shall upon request furnish promptly all necessary facilities, labor and materials. If such work is found to be defective in any material respect because of a fault of the Contractor or any of its subcontractors, or if any work shall have been covered over without the approval or consent of the City (whether or not it is found to be defective), the Contractor shall be liable for testing costs and all costs of correction, including labor, material, services of required consultants, additional supervision and administrative costs.

7. UTILITIES

A. The accuracy and completeness of the utility information shown on the Plans is not guaranteed. The Contractor shall make its own investigation of the extent and location of utilities and of the possibility of relocation work by the utility companies, and shall plan its operations accordingly. No claim for any delays, damage or extra work occasioned thereby will be allowed.

B. The Contractor shall allow others access to the Project for the purpose of placing, relocating or maintaining utilities, and he shall cooperate in every way in the performance of this Project.

C. The Contractor shall notify the utility owners well in advance of the time the Contractor proposes to perform any work which would endanger utility installations, and the Contractor shall cooperate with the utility owners in relocating and/or protecting such installations during construction operations.

D. No payment will be made to the Contractor for locating, protecting and making arrangements for relocating public utilities or for any delays caused thereby. The Contractor shall include all costs of this Project in other scheduled items of the Contract.

E. The Contractor shall contact "Call Before You Dig" at least two days prior to commencing any excavation on the site (toll free in Connecticut at 1-800-922-4455).

8. PROGRESS MEETINGS

Progress meetings will be held weekly at locations, dates and times selected by the OWNER for the purpose of reviewing, scheduling and coordinating the Project's

progress as well as other matters.

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Tinker Elementary School Roof Replacement
RFP# 7931
Project 151-0309RR

The City of Waterbury, Department of *Education* (hereinafter "City"), is seeking a contractor for *Tinker Elementary School Roof Replacement.*

A. Background and Intent

Roof replacement at Tinker Elementary School using existing architectural design.

B. Qualifications

Eligible proposers will be those consultants, businesses, and institutions that have the following qualifications:

1. Experience and expertise in regard to providing the types of or similar services as those outlined in the Scope of Services in this RFP
2. A proposer with a proven track record in providing these types of or similar services for municipal governments.
3. Knowledge of federal and State laws and regulations governing the services outlined in the scope of services.

C. Scope of Services

Roof replacement & associated work using existing architectural designs at Tinker Elementary School as per Attachment G.

D. Agreement Period

The agreement period for any contract or purchase order resulting from this RFP is anticipated to be 120 days from fully executed contract.

E. Insurance

The respondent shall provide insurance as set for in **Attachment D** provided by insurers, satisfactory to the City and authorized to do business in the State of Connecticut, an "A-" Best's Rating and at least a Class V3 or better financial category as shown in the most current A.M. Best Company ratings.

F. General Information

1. The City is an Equal Opportunity and Affirmative Action employer and does not discriminate in its hiring, employment, or business practices. The City is committed to complying with the Americans with Disabilities Act of 1990 (ADA) and does not discriminate on the basis of disability, in admission to, access to, or operation of its programs, services, or activities.

2. ***There will be a <u>mandatory</u> Information Session with respect to this RFP on January 18, 2024 at 9:00AM at Tinker Elementary 809 Highland Ave Wtby CT 06708. ATTENDANCE AND ON-TIME SIGN-IN AT THE Information Session IS MANDATORY. THOSE LATE/NOT ATTENDING WILL NOT BE ELIGIBLE TO SUBMIT A PROPOSAL.***

3. Proposers must complete and sign the items and any forms included in <u>Attachment A</u>. (Contract Compliance Packet).

4. All questions and communications about this request for Proposal and submission requirements must be directed to the City of Waterbury ProcureWare website and must be received **by 2:00 PM on January 23, 2024**. Prospective proposers must limit their contact regarding this RFP to the Purchasing Director or such other person otherwise designated by the Purchasing Director. Responses to questions submitted by the above date or identified at any Information Session to be held in regard to this RFP, **along with any changes or amendments to this RFP**, will be available via the City of Waterbury ProcureWare website **by January 26, 2024, 2:00 PM**. It shall be the responsibility of the proposer to download this information. If you have any procedural questions in this regard, please call the Purchasing Director at (203) 574-6748.

G. Management

Any contract or purchase order resulting from this RFP will be managed by Department of Education.

H. Conditions

All those submitting proposals must be willing to adhere to the following conditions and must positively state this in the proposal:

1. All proposals in response to this RFP are to be the sole property of the City. Proposers are encouraged **not** to include in their proposals any information which is proprietary. All materials associated with this procurement process are subject to the terms of state laws defining freedom of information and privacy and all rules, regulations and interpretations resulting from those laws.

2. Any product, whether acceptable or unacceptable, developed under a contract awarded as a result of the RFP is to be the sole property of the City.

3. The timing and sequence of events resulting from this RFP will ultimately be determined by the City.

4. The proposer agrees that the proposal will remain valid for a period of 90 days after the closing date for the submission and may be extended beyond that time by mutual agreement.

5. The City may amend the terms or cancel this RFP any time prior to the execution of a contract or purchase order for these services if the City deems it to be necessary, appropriate or otherwise in the best interests of the City. Failure to acknowledge receipt of amendments, in accordance with the instructions contained in the amendments, may result in a proposal not being considered. At his option, the City's Director of Purchasing may provide all proposers with a limited opportunity to remedy any technical deficiencies identified by the City in their initial review of proposals.

6. The proposer must certify that the personnel identified in its response to this RFP will be the persons actually assigned to the project. Any additions, deletions or changes in personnel from the proposal during the course of the agreement period must be approved by the City, with the exception of personnel who have terminated employment. Replacements for personnel who have terminated employment are subject to approval by the City. At its discretion, the City may require the removal and replacement of any of the proposer's personnel who do not perform adequately, regardless of whether they were previously approved by the City.

7. All subcontractors hired by the proposer awarded a contract or purchase order as a result of this RFP must have prior approval of the City prior to and during the agreement period.

8. Any costs and expenses incurred by proposers in preparing or submitting proposals are the sole responsibility of the proposer.

9. A proposer must be prepared to present evidence of experience, ability, financial standing, and any other information deemed necessary by the City to satisfactorily meet the requirements set forth or implied in the proposal.

10. No additions or changes to the original proposal will be allowed after submittal, except as may be allowed by the City, at its option, in accordance with Section H.5. of this RFP. While changes are not permitted, clarification of proposals may be required by the City at the proposer's sole cost and expense. The final price and scope of services of any contract or purchase order resulting from this RFP may be negotiated with responsible proposers.

11. The proposer may be required to give presentations to the extent necessary to satisfy the City's requirements or needs. In some cases, proposers may have to give presentations or further explanation to any RFP selection committee established by the City.

12. The proposer represents and warrants that the proposal is not made in connection with any other proposer and is in all respects fair and without collusion or fraud. The proposer further represents and warrants that it did not participate in any part of the RFP development process, had no knowledge of the specific contents of the RFP prior to its issuance, and that no agent, representative or employee of the City participated directly in the proposer's proposal preparation.

13. All responses to the RFP must conform to instruction. Failure to include any required signatures, provide the required number of copies, to meet deadlines, answer all questions, follow the requested format, or failure to comply with any other requirements of this RFP may be considered appropriate cause for rejection of the response.

14. The proposer must accept the City's standard agreement language. <u>See Attachment B.</u>

15. Any contract or purchase order resulting from this RFP process will represent the entire agreement between the proposer and the City and will supersede all prior negotiations, representations or agreements, alleged or made, between the parties. The City shall assume no liability for payment of services under the terms of the contract or purchase order until the successful proposer is notified that the contract or purchase order has been accepted and approved by the City. Any contract resulting from this RFP may be amended only by means of a written instrument signed by the proposer and signed by the Mayor.

I. Proposal Requirements & Required Format

One original (clearly identified as such) and ***3*** paper copies of the proposal, as well as a copy of the original proposal in pdf format on a CD or flash drive, must be received at the following address no later than **10:30 AM on *February 1, 2024.*** **Proposals received after that time shall <u>not</u> be considered.**

Mr. Kevin McCaffery
Director of Purchasing
City of Waterbury
235 Grand Street
Room 103
Waterbury, CT 06702

Proposals submitted must be bound, paginated, indexed and numbered consecutively. Proposers shall complete **Attachment C** addressed to Mr. McCaffery, which, in part, includes a statement by the proposer accepting all terms and conditions and requirements contained in the RFP, and which shall be signed by a duly authorized official of the organization submitting the proposal. Proposers shall also, as indicated in Attachment C, identify the name of a contact person, along with their telephone number, email address, if applicable, and address, who can be contacted for the purpose of clarifying the information contained in their response to this RFP. In addition to any other information required in Attachment C, proposers shall provide their firm's authorization and a request to any persons, firm, or corporation to furnish any information requested by the City of Waterbury in verification of the recitals included in its response to this RFP.

Proposals must set forth accurate and complete information for each of the items listed below. At the City's discretion, failure to do so could result in disqualification.

1. Proposer Information: Please provide the following information:

    a. Firm Name
    b. Permanent main office address
    c. Date firm organized.
    d. Legal Form of ownership. If a corporation, indicate where incorporated.
    e. How many years have you been engaged in services you provide under your present name?
    f. Names, titles, reporting relationships, and background and experience of the principal members of your organization, including officers.

2. Experience, Expertise and Capabilities

    a. Philosophy Statement and Business Focus. A statement of the proposer's philosophy and approach in undertaking the services of the nature outlined in the RFP, as well as a description of its primary business focus.
    b. Summary of Relevant Experience. A listing of all projects that the proposer has completed within the last three (3) years must be provided, as well as all projects of a similar nature to those included in the Scope of Services in this RFP. The following information shall be provided for each organization listed under this subsection:
        - Organization name and the name, title, address and telephone number of a responsible contact person.
        - Nature of services provided and dates services started and actually completed. Please indicate, for each assignment, if it was completed within the original contract timeframe and budget. If not, please explain.
        - For each project done for a municipality or other government agency, please indicate the gross cost of the agreement.

Additionally, please list any contracts or purchase orders in the last three (3) years between the proposer and any agency of the City of Waterbury.

c. Personnel Listing. A complete listing of the staff identified in the work plan by job classification, along with their resumes. Each resume shall include the individual's qualifications and experience in the subject area.
d. Conflict of Interest. Disclose any current (within the last 3 years) business, financial, personal or other types of relationships which may pose a conflict of interest.

3. Statement of Qualifications and Work Plan

a. Qualifications. Please describe your firm's qualifications, experience and capabilities as they pertain to each of the areas of qualifications listed, as well as those of the personnel to be assigned to this project.
b. Work Plan. Please describe the approach that would be generally followed in undertaking the Scope of Services in Section C above.
c. Services Expected of the City. Identify the nature and scope of the services that would be generally required of the City in undertaking these projects.

4. Cost Schedule. Proposals shall include a single price for work to be performed in accordance with this RFP, inclusive of all personnel and non-personnel expenses as per Attachment E. This price should encompass the entire Scope of Services in this RFP. The City reserves the right to negotiate costs, scope of services, and key personnel based on provider proposals. In order for the City to evaluate the proposed cost, proposers must include for each element in the Work Plan outlined in Section I.3.b. above, the staff, hours, hourly rates and the total cost. Include details generally associated with non-personnel costs as an additional cost section.

Since the City may desire to consider the proposer's experience, qualifications, statement of work, and other aspects of the RFP prior to the Cost Proposal, the Cost Proposal shall sealed in a separate envelope marked "Confidential: Cost Proposal".

Note: The City is exempt from the payment of excise, transportation and sales taxes imposed by the Federal Government and/or the State. Such taxes must not be included in prices.

5. Information Regarding: Failure to Complete Work, Default and Litigation.

Please respond to the following questions:

a. Have you ever failed to complete any work awarded to you? If so, where and why?
b. Have you ever defaulted on a contract? If so, where and why?
c. Is there any pending litigation which could affect your organization's ability to perform this agreement? If so, please describe.

d. Has your firm ever had a contract terminated for cause within the past five years? If yes, provide details.
e. Has your firm been named in a lawsuit related to errors and omissions within the past five years? If yes, provide details.
f. During the past seven years, has your firm ever filed for protection under the Federal bankruptcy laws? If yes, provide details.
g. Are there any other factors or information that could affect your firm's ability to provide the services being sought about which the City should be aware?

6. Exceptions and Alternatives. Proposers wishing to take any exceptions to any requirement in the RFP shall state and explain such exceptions. The City may accept proposals which take exception to any requirements in this RFP, or which offer any alternative to a requirement herein, as well as consider such exceptions and alternatives in evaluating responses. Any exception or alternative must be clearly delineated and cannot materially affect the substance of this Request for Proposals.

7. Additional Data. Any additional information which the proposer wishes to bring to the attention of the City that is relevant to this RFP.

J. Evaluation of Proposals; Selection Process

1. Evaluation Criteria

The following criteria are expected to be among those utilized in the selection process. They are presented as a guide for the proposer in understanding the City's requirements and expectations for this project and are not necessarily all inclusive or presented in order of importance.

a. Proposed statement of work. Emphasis will be on grasp of the issues involved, soundness of approach and the quality of the overall proposal.

b. Proposed cost schedule.

c. Experience, expertise, and capabilities of the proposer. Background, qualifications, and previous experience of personnel to be assigned to the project and their demonstrated competence, experience and expertise in the type of work to be performed. The type of experience, expertise, capabilities, and qualifications desired are outlined in Section B. - Qualifications of this RFP. The City may contact one or more of the organization references listed in Section I.2.b. of this RFP as part of assessing the experience, expertise and capabilities of the proposers or those selected as the finalist(s).

d. Time, Project and Cost Schedule**.** Emphasis will be on the proposer's record with completing tasks and producing the necessary products within required time frames and within budget.

2. Selection Process

The City of Waterbury may elect to have the proposals evaluated by a committee as part of making a selection. If deemed necessary, the City reserves the right to arrange for interviews/oral presentations as part of the selection process, which invitations for interviews may involve a short-listing of the proposals received.

K.Rights Reserved To The City

The City reserves the right to award in part, to reject any and all proposals in whole or in part for misrepresentation or if the proposer is in default of any prior City contract, or if the proposal limits or modifies any of the terms and conditions and/or specifications of the RFP. The City also reserves the right to waive technical defects, irregularities and omissions if, in its judgment, the best interest of the City will be served.

L. Federal, State and Local Employment Requirements

Contractors, if applicable, shall be obligated to fully comply with the attached Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects, i.e. City of Waterbury Ordinances Chapter 34 ("Good Jobs Ordinance"), Federal Davis- Bacon Act, Federal American Recovery and Reinvestment Act of 2009, and the Housing and Urban Development Section 3 Clause, all as further specified in the attached City of Waterbury Contract form. Also attached hereto, is a full copy of the aforesaid City of Waterbury Ordinance, commonly referred to as the "Good Jobs Ordinance".

M. State Set-Aside Requirements

The contractor who is selected to perform this municipal public works project, funded in whole or part by the State, must comply with CONN. GEN. STAT. §§ 4a-60, 4a-60a, 4a-60g, and 46a-68b through 46a-68f, inclusive, as amended by June 2015 Special Session Public Act 15-5. An Affirmative Action Plan must be filed with and approved by the Commission on Human Rights and Opportunities prior to the commencement of construction.

State law requires a minimum of twenty-five (25%) percent of the state-funded portion of the contract for award to subcontractors holding current certification from the Connecticut Department of Administrative Services ("DAS") under the provisions of CONN. GEN. STAT. § 4a-60g, as amended. (25% of the work with DAS certified Small and Minority owned businesses and 25% of that work with DAS certified Minority, Women and/or Disabled owned businesses.) The contractor must demonstrate good faith effort to meet the 25% set-aside goals.

For municipal public works contracts, the contractor must file a written or electronic non-discrimination certification with the Commission on Human Rights and Opportunities. Forms can be found at http://www.ct.gov/opm/cwp/view.asp?a=2982&q=390928&opmNav_GID=1806.

N. State DAS Requirements for Construction Projects

If applicable, Proposers shall submit with their Proposals their DAS Contractor Prequalification Certificate along with a current Updated Bid/Proposal Statement. In addition, any named Subcontractor whose subcontract value is equal to or greater than $500,000 shall hold a current DAS Contractor Prequalification Certificate in the closest applicable Classification of the work that the Subcontractor will complete in the contract. The proposer must submit with their proposal, all applicable Subcontractor DAS Prequalification certificates. Any Proposal submitted without a copy of the DAS Prequalification Certificate and an Updated Bid/Proposal Statement for the proposal and DAS Prequalification Certificates for Subcontractors whose subcontract value is equal to or greater than $500,000 shall be invalid.

The Successful Proposer and each of its Subcontractors having subcontracts in value equal to or greater than $500,000 shall maintain and keep current their respective DAS Contractor Prequalification Certificates at all times during the term of the Contract and any warranty period set forth in the Contract Documents.

O. CT-DAS Contractor Prequalification Requirements

i. This project is funded in whole or part by State funds, accordingly, any Proposal with a Total Price Proposal of over Five Hundred Thousand Dollars ($500,000.00) shall include as part of its Proposal submission an Update (Bid) Statement and a current “DAS Contractor Prequalification Certificate” (not a predetermination letter) from the DAS. Anticipated Prequalification classification are as follows:

GENERAL BUILDING CONSTRUCTION (GROUP A)
GENERAL BUILDING CONSTRUCTION (GROUP B)
GENERAL BUILDING CONSTRUCTION (GROUP C)
GENERAL TRADES
HISTORICAL BUILDING RESTORATION (MASONRY, ROOFING)
MASONRY
METAL SIDING
ROOFING
WATERPROOFING

ii. Further, any named Subcontractor whose subcontract value is equal to or greater than $500,000 shall hold a current DAS Contractor Prequalification Certificate in the closest applicable Classification of the work that the Subcontractor will complete in the contract and Proposer shall submit as part of its Proposal submission all applicable Subcontractor DAS Prequalification certificates and Update (Bid) Statements.

iii. The Successful Proposer and each of its Subcontractors having subcontracts in value equal to or greater than $500,000 shall maintain and keep current their respective DAS Contractor Prequalification Certificates at all times during the

term of the Contract and any warranty period set forth in the Contract Documents.

P. Bid Bond

Each Proposal submitted shall be accompanied by a Proposal Security (a Certified Check or Bid Bond) in the amount of **ten (10) percent** of the Total Proposal Price.

Q. Performance/Payment Bonds

The Proposer to whom a contract is offered, must furnish to the City, if that contract has a total cost greater than $50,000.00, a 100 percent Performance Bond with a surety, and in a form, acceptable to the City. In the City's sole discretion, it may also require a 100 percent Payment Bond and/or other additional security with a surety, and in a form, acceptable to the City.

Attachment A Documents

- ANNUAL STATEMENT OF FINANCIAL INTEREST
- DEBARMENT CERTIFICATION
- CITY OF WATERBURY DISCLOSURE OF OUTSTANDING OBLIGATIONS
- CORPORATE RESOLUTION
- LLC RESOLUTION

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 202__)
Persons or Entities Conducting Business with the City

I. Outstanding Purchase Orders of Contracts with the City

A. Contracts

No Contracts with the City ☐

(Service or Commodity Covered by Contract)

(Term of Contract)

(Service or Commodity Covered by Contract)

(Term of Contract)

(Service or Commodity Covered by Contract)

(Term of Contract)

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 202__)
Persons or Entities Conducting Business with the City

B. Purchase Order(s).

No Purchase Order(s) with the City ☐

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 202__)
Persons or Entities Conducting Business with the City

II. Financial Interest Disclosure

(Public Officials, Employees or Board and Commission Members with interest in Person or Entity Conducting Business with the City)

No Officials, Employees or Board and Commission Members with Financial Interest ☐

(Name of Official)

(Position with City)

(Nature of Business Interest)
(e.g. Owner, Director etc…)

Interest Held By:
Self ☐ Spouse ☐ Joint ☐ Child ☐

(Name of Official)

(Position with City)

(Nature of Business Interest)
(e.g. Owner, Director etc…)

Interest Held By:
Self ☐ Spouse ☐ Joint ☐ Child ☐

1. I certify that this Annual Statement of Financial Interests is a complete and accurate statement of those matter required to be disclosed by me pursuant to §39.061 of the Code of Ordinances.

2. I understand that if I fail to file an Annual Statement (or amendment thereto) or an inaccurate Statement I will be in violation with Chapter 39 of the Code of Ordinance and, thereby, subject to the remedies set forth in §§38.71 and 39.101 of said Code.

3. I understand that I must file with the City Clerk, within fifteen (15) days following any reportable occurrence, any amendments to the Annual Statement.

I have read and agree to the above certification.

_____
(Name of Company, if applicable)

_____ _____
Signature of Individual (or Authorized Signatory) Date

_____
Print or Type Name and Title (if applicable)

DELIVERED | By Mail ☐ Hand-Delivered ☐

City of Waterbury Certification
Regarding
Debarment, Suspension, Ineligibility and Exclusion

If the transaction is Federally funded, in whole or in part (including pass through grants to state and/or municipal government), this certification is required by the regulations implementing one or more Presidential Executive Orders. If this transaction is funded by the State of Connecticut, in whole or in part, this certification is required in accordance with one or more State of Connecticut general statutes.

1. By signing and submitting the attached proposal and/or this document, the prospective lower tier participant, vendor, or contractor is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant, vendor, or contractor knowingly rendered an erroneous certification, in addition to other remedies available to the Federal , State, or City government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant, vendor or contractor shall provide immediate written notice to the person to which the attached proposal and/or this document is submitted if at any time the prospective lower tier participant, vendor or contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction", "principal", "proposal", and "voluntarily excluded", as used herein, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549 and/or State of Connecticut statutes and regulations. You may contact the person to which this proposal and/or this document is submitted for assistance in obtaining a copy of the foregoing.
5. The prospective lower tier participant, vendor or contractor agrees by submitting the attached proposal and/or this document that, should the proposed covered transaction be entered into, it shall not knowingly enter into any covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant, vendor or contractor further agrees by submitting the attached proposal and/or this document that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion-Lower Tier Covered Transactions", without modification, in all covered transaction and in all solicitations for covered transactions.
7. A participant in a covered transaction may rely upon the certification of a prospective participant in a covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may but is not required to, check the Non-procurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required herein. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 herein, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal, State or Municipal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification

(1) The prospective recipient of monies hereby certifies, by submission of its attached proposal and/or by execution of this document, that neither it nor its principles are presently debarred, suspended, proposed for debarment, declared ineligible, disqualified, or voluntarily excluded from bidding or participation in the proposed transaction by any Federal, State, or Municipal department or agency or by the statutes, regulations or ordinances of the foregoing departments and agencies.

(2) Where the prospective recipient of monies is unable to certify to any of the statements in this certification, such prospective participant shall attach a written explanation hereto.

Full Legal Name and address of Recipient, Vendor, or Contractor: _____
_____
_____.

Print Name and Title of Authorized Representative: _____

Signature of Authorized Representative: _____

Date: _____

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

For the purposes of this Disclosure of Outstanding Financial Obligations, the following definitions apply:

(a) "Contract" means any Public Contract as defined below.

(b) "Person" means one (1) or more individuals, partnerships, corporations, associations, or joint ventures.

(c) "Public Contract" means any agreement or formal commitment entered into by the city to expend funds in return for work, labor, services, supplies, equipment, materials or any combination of the foregoing, or any lease, lease by way of concession, concession agreement, permit, or per agreement whereby the city leases, grants or demises property belonging to the city, or otherwise grants a right of privilege to occupy or to use said property of the city.

(d) "City" means any official agency, board, authority, department office, or other subdivision of the City of Waterbury.

State of_____

SS.:_____

County of_____

_____, being first duly sworn, deposes and says that:

1. I am the ***owner, partner, officer, representative, agent or*** _____ of _____(Contractor's Name), the Contractor that has submitted the attached agreement.

2. I am fully informed respecting the preparation and contents of the attached Agreement and of all pertinent circumstances respecting such Agreement;

3. That as a person desiring to contract with the City (check all that apply):

____ The Contractor and each owner, partner, officer, representative, agent or affiliate of the Contractor has filed a list of taxable personal property with the City of Waterbury for the most recent grand list, as required by Conn. Gen. Stat. §12-42.

____ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor are required to file a list of taxable personal property with the City of Waterbury for the most recent grand list, as required by Conn. Gen. Stat. §12-42.

____ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor either directly or through a lease agreement, owes back taxes to the City of Waterbury

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

____ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor either directly or through a lease agreement, has any other outstanding obligations to the City of Waterbury

4. The following list is a list of the names of all persons affiliated with the business of the Contractor, if none state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

Name	Title	Affiliated Company (if none state NONE)	Service or Material	DOB
1				
2				
3				
4				

5. That as a person desiring to contract with the City:

(a) The Contractor or an owner, partner, officer, representative, agent or affiliate of the Contractor provides, or has provided, services or materials to the City within one (1) year prior to the date of this disclosure, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

Name	Title	Affiliated Company (if none state NONE)	Service or Material	DOB
1				
2				
3				
4				

(b) The Contractor possesses an ownership interest in the following business organizations, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized) :

Organization Name	Address	Type of Ownership
1		
2		
3		
4		

(c) The following persons possess an ownership interest in the Contractor. If the Contractor is a corporation, list all of the officers of the corporation and the names of each stockholder whose shares exceed twenty-five

(25) percent of the outstanding stock, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

Name	Title	DOB	Stock %
1			
2			
3			
4			

(d) Of the following of the affiliates, individuals or business entities identified in this affidavit, list each that owns, owned, or within one (1) year prior to the date of this disclosure has owned, taxable property situated in the City of Waterbury, if none state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

Name	Title	Affiliated Company (if none state NONE)	Address	DOB
1				
2				
3				
4				

(e) If the Contractor conducts business under a trade name, the following additional information is required: the place where such entity is incorporated or is registered to conduct such business; and the address of its principal place of business, if none, state none:

TRADE NAME	PLACE OF INCORPORATION/REGISTRY	PRINCIPAL PLACE OF BUSINESS
1		
2		
3		
4		

I hereby certify that the statements set forth above are true and complete, and I understand that any incorrect information or omission of information from this affidavit may result in the immediate termination of the Contractor's agreement with the City of Waterbury.

For Partnership/Sole Proprietor

In presence of:

_____ _____

Witness Name of Partnership/Business

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

By: _____
Name of General Partner/ Sole Proprietor

_____
Address of Business

State of _____)

) SS

County of _____)

_____ being duly sworn,

Deposes and says that he/she is _____ of _____ and that he/she answers to the foregoing questions and all statements therein are true and correct.

Subscribed and sworn to before me this _____ day of _____ 202_.

_____
(Notary Public)

My Commission Expires: _____

For Corporation

_____ _____
Witness Name of Corporate Signatory

_____
Address of Business

Affix
Corporate
Seal

By:_____
Name of Authorized Corporate Officer

Its:_____
Title

CITY OF WATERBURY

DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

State of _____)

) SS

County of _____)

_____ being duly sworn,

deposes and says that he/she is _____ of _____ and that he/she answers to the foregoing questions and all statements therein are true and correct.

Subscribed and sworn to before me this _____ day of _____ 202__.

_____
(Notary Public)

My Commission Expires: _____

CORPORATE RESOLUTION

I, _____, hereby certify that I am the duly elected and acting Secretary of _____, a corporation organized and existing under the laws of the State of _____, do hereby certify that the following facts are true and were taken from the records of said corporation.

The following resolution was adopted at a meeting of the corporation duly held on the _____ day of _____, _____.

"It is hereby resolved that _____ is authorized to make, execute and approve, on behalf of this corporation, any and all contracts or amendments thereof".

And I do further certify that the above resolution has not been in any way altered, amended, repealed and is now in full force and effect.

IN WITNESS WHEREOF, I hereunto set my hand and affix the corporate seal of said _____ corporation this _____ day of _____, 202__.

_____
Secretary

TO BE SIGNED ON DATE OF CONTRACT EXECUTION

LIMITED LIABILTY COMPANY RESOLUTION

I, _____, hereby certify that I am the duly authorized and acting Member / Manager (circle one) of_____, a limited liability company organized and existing under the laws of the State of_____, do hereby certify that the following facts are true and were taken from the records of said LLC.

The following resolution was adopted at a meeting of the LLC duly held on the _____ day of _____, _____.

"It is hereby resolved that _____is authorized to make, execute and approve, on behalf of this LLC, any and all contracts or amendments thereof".

And I do further certify that the above resolution has not been in any way altered, amended, repealed and is now in full force and effect.

IN WITNESS WHEREOF, I hereunto set my hand and affix the company seal of said _____ , LLC this _____ day of _____, 202__.

_____
Manager/Member

.

TO BE SIGNED ON DATE OF CONTRACT EXECUTION

Attachment B Document

- SAMPLE CONTRACT

CONSTRUCTION CONTRACT
RFP Number 7931
for
Tinker Elementary School Roof Replacement
between
City of Waterbury
and

_____

THIS CONTRACT, effective on the date signed by the Mayor, is by and between the CITY OF WATERBURY, City Hall, 235 Grand Street, Waterbury, Connecticut (the "City") and _____, located at _____, a Connecticut Domestic Limited Liability Company (the "Contractor").

WHEREAS, the City's purchases under the Agreement will be funded by monies received by the City through the State of Connecticut, Department of Administrative Services (DAS), Office of School Construction Grants and Review (OSCG&R); and

WHEREAS, the Contractor submitted a bid to the City in response to **Request for Proposal ("RFP") Number 7931** for roof replacement and associated work at Tinker Elementary School using existing architectural designs; and,

WHEREAS, the City accepted the Contractor's bid for **RFP Number 7931;** and

WHEREAS, the City desires to obtain the Contractor's services for roof replacement and associated work at Tinker Elementary School using existing architectural designs pursuant to the terms set forth in this Contract (the "Project").

NOW THEREFORE, THE PARTIES AGREE AND COVENANT AS FOLLOWS:

1. Scope of Services. The Contractor shall furnish all of the labor, services, equipment, materials, supplies, transportation, and incidentals necessary to complete the Project as specified in this agreement (also referred to herein as "Contract") and such shall be completed in a satisfactory manner, as reasonably determined by the City. All labor, services, equipment, materials, supplies, transportation, and incidentals shall comply with **(i)** any and all applicable local, state and federal laws, statutes, ordinances, rules and regulations, including without limitation all notice requirements thereunder, and **(ii)** generally accepted professional standards.

1.1. The Project consists of roof replacement and associated work at Tinker Elementary School using existing architectural designs as detailed and described in the Bid Documents in **Attachment A** and which are hereby made material provisions of this Contract. **Attachment A** shall consist of the following, which are attached hereto, are

acknowledged by the Contractor as having been received, or otherwise hereby incorporated by reference as noted below, and all are made a part hereof:

- Project plans, specifications, drawings, supplementary conditions
- Bid Forms, including the City's Bid documents and the Contractor's responses
- any and all amendment(s) and Change Orders, issued by the City after execution of Contract (incorporated by reference)
- Non-Collusion Affidavit; Debarment Certificate
- Performance Bond and Payment Bond
- Certificates of Insurance
- All applicable Federal, State and local statutes, regulations charter and ordinances (incorporated by reference)
- All permits and licenses (incorporated by reference)

1.2. The entirety of **Attachment A** plus this executed instrument are together deemed the Contract Documents (hereinafter collectively referred to as "Contract Documents"). The City's record copy of the Contract Documents shall control and shall be effective and binding on the Contractor. In the event that any provision in the Contract Documents conflict with any other provision therein, the provision in the component part of the Contract Document first enumerated below shall govern over any other component part which follows it numerically.

i. Contract Amendment(s) and Change Orders
ii. Contract
iii. Contractor's Bid Form
iv. Federal, State, and local laws, regulations, charter and ordinances
v. Technical Specifications
vi. Drawings

2. Representations Regarding Qualification and Accreditation. The Contractor represents that its employees are licensed to perform the scope of work set forth in this Contract. The Contractor further represents that its employees have the requisite skill, expertise and knowledge necessary to perform the scope of work required under the terms of this Contract, including any supplementary work and the City relies upon Contractor's representations.

2.1. Representations regarding Personnel. The Contractor represents that it has, or will secure at its own expense, all personnel required to perform the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the City, unless use of City employees or of personnel having a contractual relationship with the City is approved in writing. As set forth above, all the services required hereunder shall be performed by the Contractor or under its supervision and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under state or local law to perform such services.

2.2. Representations regarding Qualifications. The Contractor hereby represents that, to the extent required by Federal, State and Local statutes, regulations, codes, ordinances, and policies, that the Consultant and/or its employees be licensed, certified, registered, or otherwise qualified, the Consultant and all employees providing services under this Contract, are in full compliance with those statutes, regulations and ordinances. Upon City request, the Consultant shall provide to the City a copy of the Consultant's licenses, certifications, registrations, etc.

3. Responsibilities of the Contractor. The Contractor agrees to properly implement the services required in the manner herein provided. The Contractor shall, in addition to any other responsibilities set forth in this Contract and the Schedules and Attachments hereto, perform the following coincident with the performance of this Contract:

3.1. Due Diligence Obligation. The Contractor acknowledges its responsibilities to examine and to be thoroughly familiar with the City's bid document, including, but not limited to the plans, specifications, drawings and any addenda thereto. The Contractor hereby warrants and represents that prior to the submission of its proposal during the bid process it reviewed or was afforded opportunity, by the City, to review all physical items, facilities, services and functions essential to the satisfactory performance of the services required ("Due Diligence") and thereby certifies that all such items facilities, services and functions are included in this Contract and thereby warrants that:

3.1.1 it conducted or had opportunity to conduct all due diligence prior to the submission of its bid and, accordingly, any additional costs, services or products resulting from the failure of the Contractor to complete Due Diligence prior to submission of its bid proposal shall be borne by the Contractor. Furthermore, the Contractor had the opportunity during the bid process to ask questions it saw fit and to review the responses from the City;

3.1.2 its failure or omission to make investigation and verification of data shall, in no way, be cause for future claim of ignorance of such data or conditions nor shall such failure to investigate and verify be the basis for any claim whatsoever, monetary or otherwise;

3.1.3 it is solely responsible for resolving any issues resulting from its failure to conduct due diligence and it shall assume any and all resulting costs it incurs during the Project;

3.1.4 it was responsible for specifying any changes and disclosing any associated new costs prior to submittal of its bid. In the event the Contractor failed to disclose any such new cost prior to the submittal of its bid, the Contractor hereby covenants that it shall remain solely responsible for, and shall absorb, those non-disclosed costs;

3.1.5 it has familiarized itself with the nature and extent of the Contract Documents, Project, locality, and with all local conditions and Federal, State

and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Project;

3.1.6 it has given the City written notice of any conflict, error or discrepancy that the Contractor discovered in the City's bid documents and other documents for **RFP Number 7931** (collectively "Bid Documents");

3.1.7. it agrees that the Bid Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Project;

3.1.8. it has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Scope of Services which were utilized in the preparation of the plans and specifications;

3.1.9 it has made or caused to be made examinations, investigations, measurements and tests and studies of any applicable reports and related data as it deems necessary for ensuring performance of the Scope of Services at the Contract Price within the Contract Time and in accordance with the other terms and conditions of the Contracts; and certifies no additional examinations, investigations, tests, reports or similar data are or will be required by Contractor for such purposes; and

3.1.10 The Contractor shall not take advantage of any obvious error or apparent discrepancy in the Contract. Notice of any error or discrepancy discovered shall be given immediately in writing to the City, who shall make such corrections and interpretations as it may deem necessary for the completion of the Project in a satisfactory and acceptable manner.

3.2. Safety. Contractor shall perform all work in a safe manner in full compliance with local, state and federal health and safety regulations. Contractor shall immediately correct any dangerous condition caused by or resulting from its work. If it fails to correct, or to act diligently to correct, any condition which the City reasonably believes to be a hazard to persons or property, then immediately upon oral or written notice to any supervisory or similar personnel of Contractor, City may, but shall not be required to, correct same at Contractor's expense. City shall confirm to Contractor in writing any oral notice given within five (5) business days thereafter.

3.3. Storage. In the event the Project site has insufficient, inadequate, and/or improper storage space, it shall be the responsibility of the Contractor to secure, provide and maintain at the Contractor's sole cost and expense **(i)** adequate off-site storage space for equipment, materials, incidentals, etc., and **(ii)** all associated delivery and transportation services. In either event, the Contractor shall assume full responsibility for equipment, materials, incidentals, etc. until both title and risk of loss pass to the City pursuant to Section 8 of this Contract.

3.4. Working Hours. To the extent the Contractor is required to be on City property to render the Contractor's services hereunder, the Contractor shall coordinate its schedule so that work on and at the Project site is performed during the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturday, Sunday and legal holidays unless more exactly specified elsewhere in this Contract or **Attachment A** or unless prior written permission is obtained from the City to work during other times. This provision shall not excuse the Contractor from timely performance under the Contract.

3.5. Cleaning Up. The Contractor shall at all times keep the Project site free from accumulation of waste materials or rubbish caused by Contractor's employees or subcontractors, and at the completion of the work shall remove all rubbish from and about the Project and all tools, scaffolding and surplus materials and shall leave the Project site "broom clean" or its equivalent, unless more exactly specified. In case of dispute, the City may remove the rubbish and charge the cost to the Contractor.

3.6. Publicity. Contractor agrees not to deliberately disclose the fact that the City has entered into or terminated this Contract or disclose any of the terms of the Contract or use the City's name in connection with any publicity, unless the City gives prior written consent to such use of the City's name in each instance.

3.7. Standard of Performance. All Contractor labor, materials, supplies, components, equipment, reports, plans, specifications, drawings, deliverables, incidentals, etc., required to be furnished or delivered under this Contract shall conform in all respects with the requirements set forth in this Contract and shall meet or exceed those standards generally recognized in the Contractor's craft and trade in the State of Connecticut. City specified manufacturer and/or brand name substitution desired by the Contractor shall be made only with the prior written consent of an authorized representative of the City's Using Agency.

> **3.7.1** In carrying out the Project, the Contractor must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor, nor with the normal routine of the institution or agency operating at the Project site.

3.8. **Contractor's Employees.** The Contractor shall at all times enforce strict discipline and good order among its employees, and shall not employ on the work any unfit person or anyone not skilled in the work assigned. The Contractor shall not, without the prior written approval of the City's Using Agency, substitute, terminate, replace or otherwise remove any Contractor employee expressly named, identified or required in this Contract.

3.9. Subsurface/Unknown Site Conditions. If Project site conditions are encountered which are **(i)** subsurface or otherwise concealed physical conditions or other conditions which differ materially from those indicated in the Contract

Documents, or **(ii)** unknown conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent or common in construction activities of the character provided for in this Contract, then prompt notice by the observing party shall be given to the other party to this Contract before Project site conditions may be disturbed. The Contractor shall thereafter wait for written instructions from the City before proceeding with regard to such conditions.

3.10. Surveys. All surveys required under this Contract shall be performed by a State of Connecticut duly licensed land surveyor. Unless expressly stated to the contrary in Section 1 of this Contract and **Attachment A**, the Contractor shall perform all layout work, all field measurements and all construction staking required, necessary or prudent for the satisfactory prosecution of the Contractor's obligations under this Contract.

3.11. Permits and Licenses. Unless expressly stated to the contrary in Section 1 of this Contract and **Attachment A**, the Contractor shall secure and obtain all permits and all licenses required, or necessary, or prudent for the performance of the Contractor's obligations under this Contract, and for the City's occupancy, use, and operation of the Project.

3.12. Manufacturer's Directions. Where it is required in this Contract that materials, products, processes, equipment or the like be installed or applied in accord with manufacturer's directions, specifications or instructions, it shall be construed to mean that the said application or installation by the Contractor shall be in strict accord with printed instructions furnished by the manufacturer of the material concerned for use under conditions similar to those at the Project site. One (1) copy of such instructions shall be furnished to the City.

3.13. Review by the City. The Contractor shall permit the City and the City's duly authorized representatives and agents to review, at any time, all work performed under the terms of this Contract at any stage of the Project.

3.14. Records Maintenance. The Contractor shall maintain or cause to be maintained all records, books or other documents relative to charges, costs, expenses, fees, alleged breaches of the Contract, settlement of claims or any other matter pertaining to the Contractor's demand for payment.

4. Responsibilities of the City and City Reservation of Rights. Upon the City's receipt of Contractor's written request for specific information, the City will provide the Contractor with existing documents, data and other materials the City agrees are necessary and appropriate to the services to be performed by the Contractor hereunder and the City will endeavor to secure, where feasible and where the City agrees it is necessary and appropriate, materials or information from other sources requested by the Contractor for the purpose of carrying out the services under this Contract.

4.1. The City may, in its sole discretion, designate person(s) to act as the City's Project Engineer(s) and/or Manager(s) and the City may, in its sole discretion, define such person(s) authority and responsibilities.

4.2. The City reserves the right to **(i)** perform work related or unrelated to the Project with the City's own forces adjoining, adjacent to, or in the vicinity of, the Project site and/or **(ii)** let separate contracts related or unrelated to the Project for work and services adjoining, adjacent to, or in the vicinity of, the Project site. In such event, the Contractor shall afford all such parties reasonable opportunity for storage of materials and equipment and for the uninterrupted provision and delivery of such parties' work and/or services. The Contractor shall cooperate with such parties and in the case of a dispute, the decision of the City shall be complied with by all.

5. Contract Time. Contract Time. The Contractor shall Substantially Complete all work and services required under this Contract within **seventy five (75) consecutive calendar days** of the City's written Notice to Proceed and shall reach Final Completion within **one hundred twenty (120) consecutive calendar days** of the City's written Notice to Proceed ("Contract Time").

5.1. Within one (1) week of the City's issuance of its written notice to proceed, and prior to the commencement of any work on the Project site, the Contractor shall submit for the City's written approval a construction progress schedule. On a monthly basis, the Contractor shall deliver to the City a written status report setting forth an analysis and critique of the Contractor's compliance with said schedule.

5.2. Delay Damages

5.2.1 Time is and shall be of the essence for all Project Phase Completion Dates, Milestones, Substantial and Final Completion Date. The Contractor further agrees that the Project shall be prosecuted regularly, diligently and uninterruptedly and at such rate of progress as will insure full completion thereof within the Contract time stated above. It is expressly understood and agreed, by and between the Contractor and City, that the Phase Completion Dates, Milestones, Substantial and Final Completion Date are reasonable for the completion of the Project.

5.2.1.1 The Contractor shall pay to the City the sum of Five Hundred Dollars ($500.00) per calendar day for each and every calendar day for which the Contractor is in default in completing the work beyond the Final Completion Date, Substantial Completion Date, Milestones and Phase Completion Dates, as set forth in Section 5, or the actual damages incurred by the City caused by the delay. The preceding sum is hereby agreed upon not as a penalty, but as delay damages for the delay that the City shall suffer due to such default.

5.2.1.2 The City shall have the right to recover all damages pursuant to any remedy at law or equity including but not limited to deducting the amount of any such damages from any monies due the Contractor under this Contract. The Contractor understands that if the entire Work or of any portion of the Work that the City has agreed to accept separately, if any, is not attained by the applicable completion dates as set forth in the entire Section 5, the City will suffer damages, which are difficult to specify accurately and ascertain. Delay damages based upon delay shall be assessed to compensate the City for all actual loss sustained by the delay, including, but not limited to, loss of use, increased cost of material or services to complete the project, loss of State funding, all other another actual expense, and all other damages allowed by law, including attorney's fees.

5.3 No Damage for Delay

In no event shall the Contractor be entitled to any compensation or recovery of any damages in connection with any Delay, including, without limitation, consequential damages, lost opportunity damages, attorney's fees or other, similar remuneration. The City's exercise of any of its rights or remedies under the Contract Documents, including without limitation, ordering changes in the Work, or directing suspension, rescheduling or correction of the Work, regardless of the extent or frequency of the City's exercise of these rights has been contemplated by the parties and shall not be construed as an exception.

6. Compensation. The City shall compensate the Contractor for satisfactory provision of all of the goods and services set forth in this Contract as follows in this Section 6. No claims for additional compensation will be considered for conditions made known to the Contractor prior to bidding. No claims for additional compensation will be considered on account of failure of the Contractor to completely inform itself as required herein above.

6.1. Fee Schedule. Subject to retainage, limitations, etc. set forth below in this Section 6, the fee payable to the Contractor shall not exceed _____ (hereafter referred to as "Total Compensation") with the basis for payment being Contractor's Bid set forth in **Attachment A's** "Contractor's Bid, dated _____", which is summarized below:

[insert compensation terms]

6.2. Retainage. At the City's sole discretion, it hereby reserves the right to withhold as retainage 5% percent of any payment (or monetary sum otherwise required by law) owed to the Contractor to be withheld from payments to the Contractor otherwise payable to the Contractor until such time as the Contractor's work and services to be

provided under this Contact are fully completed and accepted in writing by the City. The retainage does not does not include additional sums that the City may withhold due to the Contractor's failure to comply with provisions of this Contract.

6.3. Limitation of Payment. Compensation to the Contractor is limited to those fees set forth in Section 6.1. of this Contract and is further limited to work **(i)** performed in fact, **(ii)** conforming with this Contract, and **(iii)** accepted in writing by a duly authorized City employee. Such compensation shall be paid by the City upon its review and approval of the Contractor's invoices for payment and review of the Contractor's work.

6.3.1 Funding. In the event this Contract is funded, in whole or in part, by Federal and/or State monies, grants, loans, etc, all City payment(s) shall fully comply with all relevant Federal and State statutes and regulations. In the event this Contract is 100% funded by Federal and/or State monies, grants, loans, etc., the aggregate sum of all City payments shall not exceed the aggregate sum of such funding.

This Contract pertains to a project funded in whole or in part, by monies received by the City through the State of Connecticut, Department of Administrative Services (DAS), Office of School Construction Grants and Review (OSCG&R).

Contractor is required to comply with all applicable Federal statutes, executive orders, regulations, rules and interpretive guidance issued by the U.S. Treasury Department, U.S. Office of Management and Budget or any other Federal agency.

This Contract is subject to 2 C.F.R. Part 180 OMB Guidelines to Agencies on Government Debarment and Suspension and the U.S. Treasury's implementing regulations set forth at 31 C.F.R. Part 19 Government Debarment and Suspension.

A listing of Federal Requirements and Representations that Contractor must comply with are set forth in Attachment A to this Contract.

6.3.2 The Contractor and its affiliates are hereby provided with notice that the City reserves the right, in the City's sole discretion, to offset, withhold, or otherwise reduce City payment(s) to the Contractor, in an amount equaling the sum or sums of money the Contractor and/or its affiliates is/are, or become delinquent or in arrears on, regarding the Vendor's and/or its affiliates real and personal property taxes and other payment obligations to the City.

6.4. Bid Costs. All costs of the Contractor in preparing its bid for **RFP Number 7931** shall be solely borne by the Contractor and are not included in the compensation to be paid by the City to the Contractor under this Contract or any other agreement.

6.5. Payment for Services, Materials, Appliances, Employees. The Contractor shall be responsible to the City for the suitability of services, materials and equipment furnished to comply fully with the requirements set forth in this Contract. The Contractor shall promptly pay all employees as their pay falls due, shall pay promptly as they fall due all bills for subcontractors, materials, supplies and services going into the work, and all bills for insurance, bonds, Worker's Compensation coverage, Federal and State Unemployment Compensation, and Social Security charges applicable to this Project. Before final City payment is made, the Contractor shall furnish to the City a sworn, notarized, affidavit stating that all of the foregoing payment obligations have been fully completed.

6.6. Liens. Neither the City's final payment nor any part of the retained percentage, if any, shall become due until the Contractor, if required by the City, shall deliver to the City a complete release of all liens arising out of this Contract, or receipts in full in lieu thereof, and, if required, in either case, an affidavit that so far as the Contractor has knowledge or information, the releases and receipts include all the labor and material for which a lien could be filed; but the Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the City, to indemnify it against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the City all moneys that the City may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

6.7. Contractor's Certificate of Completion. Upon the Contractor's **(i)** completion of all Project milestones, and **(ii)** Substantial Completion of the Project, and **(iii)** Final Completion of the Project, the Contractor shall, in each instance, file with the City a written, notarized affidavit setting forth the amount of Project work performed. The City reserves the right to verify or challenge by any reasonable means the accuracy of said affidavit.

6.8. Final Payment. All prior estimates and City payments, including those relating to extra or additional work, retainage(s), and holdback(s), shall be subject to correction by this final payment which is throughout this Contract called "Final Payment". No payment, final or partial, shall act as a release to the Contractor or its surety from any Contractor obligation(s) under this Contract.

6.9. Clean Water Fund Project Requirements. In the event this Contract is funded in whole or in part, is reliant upon, or falls within the jurisdiction of the Clean Water Fund and its statutes, regulations and rules, the Contractor shall:

6.9.1 submit Applications for Payment in accordance with the following:

The City must receive the Contractor's Application for Payment by the City's or its designee's, review and recommendation for payment, by the fifteenth calendar day of the month to receive payment within the next 50 days. If not received by the fifteenth calendar day of the month, payment can not be made until 50 days after the fifteenth calendar day of the subsequent month. The Contractor shall provide at the City's request, reasonable documentation to substantiate Contractor's Application for Payment.

6.9.2 Progress and Final Payments

The City will make progress payments on account of the Contract Price on the basis of the Contractor's Applications for Payment, monthly during construction as provided below. All progress payments will be on the basis of the progress of the Scope of Services as determined by the City, according to the schedule of values provided for in the Contract Documents, and approved by the City. Prior to Substantial Completion, progress payments will be limited to an amount equal to 95 percent of the value of the Scope of Services completed. Upon Substantial Completion, the City will pay the amount as specified in the Contract Documents.

7. Warranty of the Contractor. The Contractor warrants to the City that all materials, supplies, components, equipment, etc. furnished under this Contract shall be new and of good quality, except as otherwise expressly stated and permitted by the City elsewhere in this Contract. The Contractor warrants that none of its work shall be defective. The Contractor shall be liable to repair and install and/or replace without charge any service, component, equipment or part thereof which is defective or does not conform with this Contract within the greater of **(i)** 730 calendar days after the City delivers its written notice of its acceptance of the Project and statement therein establishing the final completion date, or **(ii)** that time period or date expressly stated elsewhere in this Contract or **Attachment A**. The City shall also receive the full benefit of the Manufacturing Warranty included in Attachment A hereto.

7.1. The Contractor further warrants that all materials, supplies, services, components, equipment, reports, plans, drawings, deliverables, incidentals, etc., shall be free from any and all defects caused by faulty design, faulty material or poor workmanship. The Contractor shall supply to the City copies of any written manufacturer's warranties and guarantees. The Contractor's foregoing warranty obligations are in addition to, and not a limitation of, all manufacturer's warranties and guarantees, and any other remedy stated in this contract or otherwise available to the City under applicable law.

8. Passing of Title and Risk of Loss.

8.1. City beneficial use of Project equipment, materials, site-work, etc. prior to the Contractor's final completion of the Project or prior to the City's final payment for the Project shall neither act to vest title in the City nor act to transfer risk of loss from the

Contractor to the City. Said title and risk shall pass to the City upon the City's final payment for the Project.

8.2. Contractor and its insurer shall assume the risks of loss or damage to the equipment up to and including the date title passes, except that City shall be responsible for loss or damage caused by City's gross negligence.

8.3. After Project equipment, materials, etc. are delivered to the Project work-site and become operable or functional, the Contractor shall not thereafter remove any such equipment, materials, etc. from the Project work-site without securing the prior written consent of an authorized City Using Agency employee.

9. Indemnification.

9.1. The Contractor shall indemnify, defend, and hold harmless the City, City's Boards, and Board of Education, commissions, agents, officials and employees from and against all claims, suits, damages, losses, judgments, costs and expenses including attorney's fees arising out of or resulting from the delivery of the labor, services, equipment, materials, reports, plans, specifications, design, drawings, deliverables, incidentals, etc. provided that any such claims, suits, damages, losses, judgments, costs or expenses **(i)** are attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including the loss of use resulting there from, **(ii)** are alleged to be caused in whole or in part by any willful, intentional, negligent, or reckless act or omission of the Contractor, its employees, any subcontractor or consultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder; **(iii)** enforcement action or any claim for breach of the Contractor 's duties hereunder or **(iv)** claim for intangible loss(es) including but not limited to business losses, lost profits or revenue, regardless of whether or not it is caused in part by a party indemnified hereunder.

9.2. In any and all claims against the City, Board of Education or any of City's boards, agents, employees or officers by the Contractor or any employee of the Contractor , any subcontractor or consultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 9 above, shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under Worker's Compensation Acts, disability benefit acts or other employee benefit acts.

9**.3**. The Contractor understands and agrees that any insurance required by this Contract, or otherwise provided by the Contractor , shall in no way limit the responsibility to indemnify, defend, keep and hold harmless the City, the Board of Education, any of City's boards, agents, employees as provided in this Contract.

9.4. The Contractor expressly understands and agrees that any performance bond or insurance protection required by this Contract, or otherwise provided by the Contractor, shall in no way limit the responsibility to indemnify, keep and save harmless and defend the City and the City's boards, agents, employees or officers as provided herein.

9.5. Royalties and Patents. The Contractor shall, for all time, secure to the City the free and undisputed right to the use of any and all patented articles and methods used in the work and shall defend at Contractor's own expense any and all suits for infringement or alleged infringement of such patents, and in the event of adverse award under patent suits, the Contractor shall pay such awards and hold the City harmless in connection with any patent suits that may arise as a result of installations made by the Contractor and as to any award made thereunder.

9.6. In the event this Contract and/or the Contractor's, or its subcontractor, work and services provisioned hereunder is/are subject to the provisions of any Federal or State statute or regulations, or the City Charter or City Ordinance, the Contractor shall indemnify, defend and hold harmless the City from any fine, penalty or other amounts imposed on the City under said statutes, regulations, Charter or Ordinances, if caused by Contractor, or its subcontractor, omission or commission.

10. Contract Bonds. The Contractor shall furnish to the City, prior to the execution of this Contract by the City, both a performance bond and a payment bond, each bond written for a penal sum equaling the Section 6 "Total Compensation" amount in a form and with a surety acceptable to the City. The bonds shall continue in effect for the greater of **(i)** the warranty period set forth in Section 7 of this Contract, or **(ii)** 365 calendar days after the Final Completion Date referenced elsewhere in this Contract.

11. Contractor's Insurance.

11.1. The Contractor shall not commence work under this Contract until all insurance required under this Section 11 has been obtained by the Contractor and such insurance has been approved by the City. The Contractor shall not allow any subcontractor to commence work on any subcontract until all insurance required of any such subcontractor has been so obtained and approved by the City. Insurance shall be provided by insurers, satisfactory to the City and authorized to do business in the State of Connecticut, an "A-" Best's Rating and at least a Class V3 or better financial size category as shown in the most current A.M. Best Company ratings.

11.2. At no additional cost to the City, the Contractor shall purchase and maintain the insurance coverages set forth below which shall protect the City from claims which may arise out of or result from the Contractor's obligation under this Contract, whether such obligations are the Contractor's or subcontractor or person or entity directly or indirectly employed by said Contractor or subcontractor, or by any person or entity for whose acts said Contractor or subcontractor may be liable.

11.3. Each insurance policy shall state that the insurance company shall agree to investigate and defend the insured against all claims for damages, even if groundless. If any insurance required herein is to be issued or renewed on a claims made form as opposed to an occurrence form, the retroactive date for coverage shall be no later than the commencement date of this Contract and shall provide that in the event of cancellation or non-renewal, the discovery period for insurance claims ("Tail Coverage") shall be available for at least 60 months.

11.4. The following policies with stated limits shall be maintained, in full force and effect, at all times during which the services are to be performed by the Contractor:

11.4.1 General Liability Insurance: $1,000,000.00 per occurrence, **$2,000,000.00** aggregate and **$2,000,000.00** Products and completed operations aggregate
Providing coverage to protect the City for all damages arising out of bodily injuries, sickness to or death of all persons in any one accident or occurrence and for all damages arising out of destruction of property in any one accident or occurrence.

11.4.2 Automobile Liability Insurance: **$1,000,000.00** combined single limit (CSL) each Accident
Providing coverage to protect the City with respect to claims for damage for bodily injury and or property damage arising out of ownership, maintenance, operation, use or loading and unloading of any auto including hired & non-owned autos.

11.4.3 Workers' Compensation: Statutory Limits within the State of Connecticut: Employers' Liability:
EL Each Accident **$500,000.00**
EL Disease Each Employee **$500,000.00**
EL Disease Policy Limit **$500,000.00**

Contractor shall comply with all State of Connecticut statutes as it relates to workers' compensation.

11.4.4 Excess/Umbrella Liability Insurance: Excess or Umbrella insurance coverage that follows form or sits over General Liability, Automobile Liability and Workers Compensation insurances**. $1,000,000.00** each occurrence and **$1,000,000.00** Aggregate.

11.4.5 Contractors Pollution Liability Insurance: $1,000,000.00 each claim, **$1,000,000.00** aggregate coverage.
The foregoing per claim coverage plus appropriate aggregate coverage depending on the size of the job for contractor caused pollution events such as

asbestos or lead abatement, but not limited to only these pollution causes of loss.

11.5. Failure to Maintain Insurance: In the event the Contractor fails to maintain the minimum required coverage as set forth herein, the City may at its option purchase same, and offset the Contractor's invoices for the cost of said insurance.

11.6. Cancellation: The City of Waterbury shall receive written notice of cancellation from the Contractor at least thirty (30) calendar days prior to the date of actual cancellation, regardless of the reason for such cancellation.

11.7. Certificates of Insurance: The Contractor's General, Automobile, Builder's Risk and Excess/Umbrella Liability Insurance policies shall be endorsed to add the City and Board of Education as an additional insured and provide waiver of subrogation on all policies except Builder's Risk and Pollution Liability. The insurance afforded the additional insured shall be primary and non-contributory insurance and the coverage and limits provided under the Contractor's policies shall not be reduced or prorated by the existence of any other insurance applicable to any loss the additional insured may have suffered. Prior to the execution of this Contract by the City, the Contractor shall furnish to the City, subject to City approval, certificate(s) of insurance and Additional Insured Endorsement and Waiver of Subrogation Endorsement verifying the above coverages, including the naming of the City of Waterbury, as follows: **"The City of Waterbury and Board of Education are listed as additional insured on all lines of coverage except Pollution Liability and waiver of subrogation applies to all lines of coverage except Pollution Liability and Builder's Risk as their interest may appear".** The City's Invitation to Bid Number must be shown on the certificate of insurance to assure correct filing. The Contractor must supply replacement/renewal certificates at least 30 days prior to the expiration of the policy(ies). Said certificates shall contain a provision that coverage afforded under the policies shall not be cancelled or reduced for any reasons unless notice of than thirty (30) calendar days has been mailed to the City's Using Agency and a copy to the City's Office of Corporation Counsel, 235 Grand Street, Waterbury, CT 06702.

11.8. No later than thirty (30) calendar days after Contractor receipt, the Contractor shall deliver to the City a copy of the Contractor's insurance policies and endorsements and riders.

12. Conformance with Federal, State and Other Jurisdictional Requirements. By executing this Contract, the Contractor represents and warrants that, at all pertinent and relevant times to the Contract, it has been, is and will continue to be in full compliance with all applicable statutes, acts, ordinances, guidelines, resolutions, orders, judgments, decrees, injunctions, rules, and regulations of all government authorities applicable to performance by the Contractor of services hereunder, including those having jurisdiction over its registration and licensing to perform services hereunder; including, but not limited to, the following: EQUAL EMPLOYMENT OPPORTUNUTY; COPELAND ANTI-KICKBACK ACT, as

supplemented in the Department of Labor Regulations (29 CFR, Part 3); DAVIS BACON ACT as supplemented by Department of Labor Regulations (29 CFR Part 5); Section 103 and 107 of the Contract Work Hours and Safety Standards Act, as supplemented by the Department of Labor Regulations (29 CFR Part 5); the HOUSING and COMMUNITY DEVELOPMENT ACT of 1974, as amended; TITLE 31 and Section 12-430(7) of the State of Connecticut General Statutes. All applicable sections of the City Charter and Code of Ordinances are incorporated by reference made a part hereof.

12.1. Taxes-Federal, State and Local. The City is exempt from Federal Excise and Transportation, State and Local Sales and Use Taxes, including without limitation, taxes that would otherwise be imposed upon the Contractor for transactions required or necessitated hereunder between it and its subcontractors, suppliers, etc. The Contractor remains liable, however, for any applicable tax obligations it incurs. Moreover, the Contractor represents that the bid and pricing contained in this Contract do not include the amount payable for said taxes.

12.2. Labor and Wages-Federal and State. The Contractor and its subcontractors shall conform to Federal and State of Connecticut labor laws, and all other laws, ordinances, and legal requirements affecting the work in Connecticut.

12.2.1 The Contractor is aware of, and shall comply with, the provisions of Title 31, §53 of the Connecticut General Statutes, latest revision (the "Act"), concerning the payment of minimum wages for work on public facilities. The provisions of the Act are hereby incorporated by reference and made a part of this Contract. The Act provides that the Connecticut prevailing wage law applies to certain remodeling, refurbishing, alteration, repair and new construction. The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in Conn.Gen.Statute 31-53(i), shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each pay day.

12.2.2 The Contractor is aware of, and shall comply with, the provisions of the Federal Davis-Bacon Act, the American Rescue Plan Act of 2021 (ARPA) and the Federal American Recovery and Reinvestment Act of 2009, the provisions of all acts hereby incorporated by reference and made a part of this Contract. The Federal Davis-Bacon Act provides that Federal wage rate laws apply to certain federally funded contracts. The American Recovery and Reinvestment Act ("ARRA") and the American Rescue Plan Act of 2021 provides that

Federal wage rate laws apply to all such funded contracts regardless of the contract's dollar value.

12.3. Compliance with Chapters 34, 38, and 39 of the Code of Ordinances of the City. By executing this Contract, the Contractor represents and warrants that, at all pertinent and relevant times to the Contract, it has been, is and will continue to be in full compliance with the provisions of Chapters 34, 38, and 39 of the Code of Ordinances of the City and well as any other relevant provisions of the Charter and the Code of Ordinances.

12.4. Compliance with CONN. GEN. STAT. § 4a-60g, as amended by June 2015 Special Session Public Act 15-5.

12.4.1 Definitions – For purposes of this paragraph:

i. "Small contractor" means any contractor, subcontractor, manufacturer, service company or nonprofit corporation (A) that maintains its principal place of business in the state, (B) that had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year prior to such application, and (C) that is independent. "Small contractor" does not include any person who is affiliated with another person if both persons considered together have a gross revenue exceeding fifteen million dollars.

ii. "Minority business enterprise" means any small contractor (A) fifty-one per cent or more of the capital stock, if any, or assets of which are owned by a person or persons who (i) exercise operational authority over the daily affairs of the enterprise, (ii) have the power to direct the management and policies and receive the beneficial interest of the enterprise, (iii) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, and (iv) are members of a minority, as such term is defined in subsection (a) of section 32-9n, or are individuals with a disability, or (B) which is a nonprofit corporation in which fifty-one per cent or more of the persons who (i) exercise operational authority over the enterprise, (ii) possess managerial and technical competence and experience directly related to the principal business activities of the enterprise, (iii) have the power to direct the management and policies of the enterprise, and (iv) are members of a minority, as defined in this subsection, or are individuals with a disability.

iii. "Municipal public works contract" means that portion of an agreement entered into on or after October 1, 2015, between any individual, Contractor or corporation and a municipality for the construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees but excluding any project of

an alliance district, as defined in section 10-262u, as amended by this act, financed by state funding in an amount equal to fifty thousand dollars or less.

12.4.2 The Contractor and subcontractor shall comply with the specific requirements of the State of Connecticut Set Aside Program, CONN. GEN. STAT. § 4a-60g, as amended by June 2015 Special Session Public Act 15-5, if the municipal public works contact awarded to the Contactor is funded in whole or in part by state funds.

13. Discriminatory Practices. In performing this Contract, the Contractor shall not discriminate against any employee or applicant for employment, with respect to his or her hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, sex, age, religious creed, disability, national origin or ancestry, marital status, family status, prior psychiatric treatment, health care, military status or source of income or because of a handicap that is unrelated to the employee's or the applicant's ability to perform the duties of a particular job or position. Subcontracts with each subcontractor shall contain a provision requiring non-discrimination in employment as herein specified. This covenant is required pursuant to §93.04 of the Code of Ordinances of the City and any breach thereof may be regarded as a material breach of this Contract. Said provisions with subcontractors shall require conformity and compliance with all local, state and federal laws, rules and regulations and Executive orders pertaining to discrimination and equal opportunity requirements.

13.1. Discrimination Because of Certain Labor Matters. No person employed on the work covered by this Contract shall be discharged or in any way discriminated against because such person has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or related to the labor standards applicable hereunder to its employer.

13.2. Equal Opportunity. In its execution of the performance of this Contract, the Contractor shall not discriminate and shall comply with applicable laws prohibiting discrimination on the grounds of race, color, religion, sex, national origin or citizenship status, age or handicap. The Contractor agrees to comply with all local, state and federal laws, rules and regulations and Executive orders pertaining to discrimination and equal opportunity requirements, and will require the same of all subcontractors

13.3. Contractor Affirmative Action.

13.3.1. Pursuant to CONN. GEN. STAT. § 4a-60, as amended by June 2015 Special Session Public Act 15-5, the following are required for every Municipal Public Works Contract:

(a) Every contract to which an awarding agency is a party, every quasi-public agency project contract and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut; and the contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved;

(2) The contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission on Human Rights and Opportunities;

(3) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(4) The contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, as amended by this act, 46a-68e, 46a-68f and 46a-86; and

(5) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and section 46a-56, as amended by this act.

(b) If the contract is a public works contract, municipal public works contract or contract for a quasi-public agency project, the contractor agrees and warrants that he or she will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works or quasi-public agency project.

13.3.2. Pursuant to CONN. GEN. STAT. § 4a-60a, as amended by June 2015 Special Session Public Act 15-5, the following are required for every Municipal Public Works Contract:

(a) Every contract to which an awarding agency is a party, every contract for a quasi-public agency project and every municipal public works contract shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or of the state of Connecticut, and that employees are treated when employed without regard to their sexual orientation;

(2) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

(3) The contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said commission pursuant to section 46a-56; and

(4) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor which relate to the provisions of this section and section 46a-56.

14. Good Jobs Ordinance

14.1. Conformance With An Ordinance Concerning The Hiring Of Waterbury Residents On Certain Publicly-Funded Construction Projects.

14.1.1 The Contractors and its Subcontractors shall comply with the specific requirements of "An Ordinance Concerning the Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects" (the "Good Jobs Ordinance"), as may be amended from time to time and as set forth in Chapter 34 of the Code of Ordinances of the City. While the principal provisions of the ordinance are summarized as set forth in paragraphs C-H below, the Contractor

does hereby acknowledge that it has reviewed a copy of the Good Jobs Ordinance and that it has read the Ordinance and that Contractor is familiar with the obligations imposed on the Contractor and each Subcontractor by the Good Jobs Ordinance.

14.1.2 Failure of the Contractor or its Subcontractors to comply with the Good Jobs Ordinance shall be a material breach of this Agreement.

14.1.3 This paragraph shall apply to a Covered Project, as that term is defined in the Good Jobs Ordinance, in the City with a value of $500,000.00 or greater and only to the extent permitted by federal and state law.

14.1.4 Definitions. For purposes of this paragraph:

i. "Administrator" shall be defined as it is in the Good Jobs Ordinance.

ii. "Apprentice" shall be defined as it is in the Good Jobs Ordinance.

iii. "Basic Skilled Worker" shall be defined as it is in the Good Jobs Ordinance.

iv. "Contractor" shall be defined as it is in the Good Jobs Ordinance.

v. "Covered Project" shall be defined as it is in the Good Jobs Ordinance.

vi. "Hiring Goal" shall be defined as it is in the Good Jobs Ordinance.

vii. "Resident" shall be defined as it is in the Good Jobs Ordinance.

viii. "Subcontractor" shall be defined as it is in the Good Jobs Ordinance and shall include the Contractor's direct subcontractor providing construction work and all lower tiered (level) providers of construction work.

14.1.5 Hiring Goals. If this Agreement requires the Contractor to perform work on a Covered Project, the Contractor and each Subcontractor shall have as its hiring goals:

i. at least thirty percent (30%) of its total worker hours performed by City Residents, and

ii. at least twenty-five percent (25%) of construction trade jobs shall go to Apprentices and/or Basic Skilled Workers, and

iii. at least seventy percent (70%) of all "new hires" (as that term is defined in the Good Jobs Ordinance) shall be "economically disadvantaged" individuals (as that term is defined in the Good Jobs Ordinance), and

iv. a minimum of five percent (5%) of the construction workforce labor hours will be local resident, minority artisans, and

v. a minimum of five percent (5%) of the construction workforce labor hours will be women, and

vi. a minimum of ten percent (10%) of the total work hours shall be allocated for minorities, or

vii. as may otherwise be required by any superseding Federal or State employment discrimination prohibition laws.

14.1.6 Good Faith Efforts. The Contractor and each Subcontractor shall engage in Good Faith Efforts to comply with the Hiring Goals. For the purposes of this paragraph, the term "Good Faith Efforts" shall have the same meaning as it does in the Good Jobs Ordinance.

The Contractor and each Subcontractor shall individually implement Good Faith efforts to satisfy the Hiring Goals.

14.1.7 Action Plan and Pre-Construction Meeting. Not later than fourteen (14) business days prior to the scheduled commencement date for construction, the Contractor shall submit a written plan-of-action to the City and to the Administrator of the Good Jobs Ordinance defining how the Contractor, and each Subcontractor, shall implement Good Faith Efforts to fulfill the Hiring Goals. Each plan-of-action shall include the anticipated number of job positions required for the Work. Not later than five (5) business day prior to the commencement date of construction, the Contractor must attend a mandatory "pre-construction" meeting with the City to review all plans-of-action and other relevant materials. No construction work shall proceed absent this pre-construction meeting.

14.1.8 Other Contractor Obligations. In addition to the foregoing, the Contractor shall ensure that all Subcontractor contracts and agreements expressly set forth and state as binding obligations therein, subject to appropriate party name change, the above Hiring Goals and Good Faith Efforts. The Contractor shall be accountable for, and liable to the City for, Contractor and each Subcontractor compliance with Hiring Goals and Good Faith efforts.

i. The Contractor shall meet with the Administrator no less than four (4) weeks prior to the commencement of construction on a Covered Project and provide the Administrator with the number of job positions to be created by the project by trade and the qualifications by job tile.

ii. The Contractor shall be required to produce Contractor and Subcontractor documentation that may be required under the provisions of the Good Jobs Ordinance or that the City or the Administrator reasonably believes will assist the City or the Administrator with their evaluation of Hiring Goals and Good Faith Efforts.

iii. The Contractor shall deliver weekly certified payroll records to the City within five (5) working days of the end of each payroll period. Moreover, the Contractor shall require each Subcontractor to create weekly certified payroll records.

iv. The Contractor's and each Subcontractor's payroll records shall include the person-hours, the residential address, race, gender, hiring date, and apprentice (job) classification of all personnel employed under this Agreement and all Contracts and Sub-Contracts thereunder. The Contractor and each Subcontractor shall mark their respective final payroll period records as being final and be signed by an authorized officer or employee.

14.2 Liquidated Damages Applicable To Section 14.1

14.2.1 If the City finds that the Contractor, or a Subcontractor, has failed to achieve Hiring Goals during any five (5) day work period (Monday through Friday), the City shall:

i. issue a written notice to the Contractor specifying the matters constituting such failure and the time period within which Good Faith Efforts documentation must be delivered to the City for its evaluation.

ii. if the Good Faith documentation is not provided or, if provided, it fails to demonstrate compliance with Good Faith Efforts, the Contractor shall, for each failure by the Contractor or a Subcontractor to achieve the Hiring Goals during a full five day work period, pay to the City one thousand dollars ($1,000.00) as liquidated damages.

14.2.2 If the City finds that the Contractor, or a Subcontractor, has failed to deliver weekly certified payroll records to the City within five (5) working days of the end of each payroll period the Contractor shall, as liquidated damages pay one thousand dollars ($1,000.00) to the City for each week of ongoing violation.

14.2.3 The City shall provide the Contractor with an invoice identifying all sums due the City, as liquidated damages, as a result of the Contractor or a Subcontractor's failure to comply with the Good Jobs Ordinance as set forth above.

14.2.4 No portion of any invoice submitted by a Contractor that is subject to liquidated damages shall be paid by the City until such time as all liquidated damages relating to that invoice have been paid to the City.

14.2.5 The foregoing liquidated damages provisions shall be expressly set forth, subject to appropriate party name adjustments, as material provisions in all Contracts that the Contractor has with Subcontractors and the Contractor is obligated hereunder to enforce compliance in such Contracts with Subcontractors.

14.2.6 Any payment of liquidated damages hereunder shall not preclude a later claim, nor any later finding of a breach, or any payment of additional damages related to such later claim.

15. Housing and Urban Development Section 3 Clause. In the event this Contract is funded, in whole or in part, through Housing and Urban Development assistance, 24 C.F.R. §135.38 may apply and the Contractor shall then be required to comply with the following (referred to as the "Section 3 clause"):

15.1. The work to be performed under this Contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. § 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted Projects covered by Section 3, shall, to the greatest extent feasible, be directed to low and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

15.2. The parties to this Contract agree to comply with HUD's regulations in 24 C.F.R. part 135, which implement Section 3. As evidenced by their execution of this Contract, the parties to this Contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.

15.3. The Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications

for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

15.4. The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 C.F.R. part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 C.F.R. part 135. The Contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 C.F.R. part 135.

15.5. The Contractor will certify that any vacant employment positions, including training positions, that are filled **(i)** after the Contractor is selected but before the Contract is executed, and **(ii)** with persons other than those to whom the regulations of 24 C.F.R. part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 C.F.R. part 135.

15.6. Noncompliance with HUD's regulations in 24 C.F.R. part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

15.7. With respect to work performed in connection with Section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. § 450e) also applies to the work to be performed under this Contract. Section 7(b) requires that to the greatest extent feasible **(i)** preference and opportunities for training and employment shall be given to Indians, and **(ii)** preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this Contract that are subject to the provisions of Section 3 and section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

16. Termination.

16.1. Termination of Contract for Cause. If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner its obligations under this Contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this Contract, the City shall thereupon have the right to terminate this Contract by either **(i)** giving written notice to the Contractor of a date certain by which Contractor shall, to the written satisfaction of the City, cure after which and without further action by any party, such termination shall automatically become effective and binding, or **(ii)** giving written notice to the Contractor specifying the effective date of such termination at least five (5) business days before the effective date of such termination.

16.1.1 In the event of a termination, all finished or unfinished documents, data, studies, reports, plans, specifications, drawings, supplies, services, etc. prepared by the Contractor under this Contract shall, at the option of the City, become the

City's property, and the Contractor shall be entitled to receive just and equitable compensation for any satisfactory work completed for such.

16.1.2 Notwithstanding the above, the Contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of this Contract by the Contractor, and the City may withhold any payments to the Contractor for the purpose of setoff until such time as the exact amount of damages due the City from the Contractor is determined.

16.2. Termination for Convenience of the City. The City may terminate this Contract at any time for the convenience of the City, by a notice in writing from the City to the Contractor. If this Contract is terminated by the City as provided herein, the Contractor will be paid an amount which bears the same ratio to the total compensation as the services actually performed bear to the total services of the Contractor covered by this Contract, less payments of compensation previously made.

16.3. Termination for Non-Appropriation or Lack of Funding. The Contractor acknowledges that the City is a municipal corporation and that this Contract is subject to the appropriation and disbursement of funds by the City sufficient for this Contract for each budget year in which this Contract is in effect. The Contractor therefore agrees that the City shall have the right to terminate this Contract in whole or in part without penalty to the City in the event that sufficient funds to provide for City payment(s) under this Contract is not appropriated, not authorized, or not made available, or such funding has been reduced. In the event this Contract is subject, in whole or in part, to the appropriation and disbursement of Federal and/or State funds and those Federal and/or State funds are not appropriated or are not disbursed to the City, the Contractor hereby agrees that the City shall have the right to terminate this Contract in whole or in part without penalty to the City.

16.3.1 Effects of Non-Appropriation. If funds to enable the City to effect continued payment under this Contract are not appropriated, authorized or otherwise made available by law, the City shall have the right to terminate this Contract without penalty at the end of the last period for which funds have been appropriated, authorized or otherwise made available by law by giving written notice of termination to the Contractor.

16.3.2 Effects of Reduced Levels of Funding. If funding is reduced by law, or funds to pay the Contractor for the agreed to level of the products, services and functions to be provided by the Contractor under this Contract are not appropriated, authorized or otherwise made available by law, the City may, upon seven (7) business days written notice to the Contractor, reduce the level of the products, services or functions in such manner and for such periods of time as the City may elect. The charges payable under this Contract shall be equitably adjusted to reflect such reduced level of products, services or functions and the parties shall be afforded the rights set forth in this Contract.

16.3.3 No Payment for Lost Profits. In no event shall the City be obligated to pay or otherwise compensate the Contractor for any lost or expected future profits.

16.4. Rights Upon Termination.

16.4.1 Termination for Cause. In the event the City terminates this Contract for cause, the Contractor shall relinquish to the City any applicable interest, title and ownership including, but not limited to, perpetual use of any proprietary rights in and to the products and deliverables delivered to, in possession of and properly invoiced and paid for by (except to the extent such invoiced amount is disputed) the City. With regard to third party products, the Contractor shall transfer all licenses which it is permitted to transfer in accordance with the applicable third party license. The City shall have no financial obligation to compensate the Contractor for such terminated products unless payment is otherwise approved by the City prior to such termination. The Contractor shall be liable for costs incurred by the City, including but not limited to reasonable attorney fees and all court awarded fees and costs incurred in terminating this Contract in whole or in part.

16.4.2 Termination for Lack of Funding or Convenience. In the event of termination by the City for lack of funding or convenience, the City shall pay the Contractor for all labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc.(including any holdbacks) installed and delivered to the City as of the Termination Date and the Contractor shall relinquish to the City any applicable interest, title and ownership including, but not limited to perpetual use of any proprietary rights in and to said labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc. delivered to, in possession of and paid for by the City (except to the extent any invoiced amount is disputed). The Contractor shall be required to exercise commercially reasonable efforts to mitigate damages. In the event of a termination for Lack of Funding or Convenience the City and the Contractor may negotiate a mutually acceptable payment to the Contractor for reasonable demobilization expenses. Said demobilization expenses, if any, shall be handled in accordance with the provision of this Contract pertaining to changes in the Project.

16.4.3 Assumption of Subcontracts. In the event of termination, the City shall have the right to assume, at its option, any and all subcontracts for products, services and functions provided exclusively under this Contract.

16.4.4 Delivery of Documents. In the event of termination, **(i)** the Contractor shall promptly deliver to the City, in a manner reasonably specified by the City, all documents and other tangible items furnished by, or owned, leased, or licensed by, the City, and **(ii)** the City shall pay the Contractor for all services performed and deliverables completed and accepted (pro-rated for deliverables

partially completed) prior to the effective date of the termination (except to the extent any invoice amount is disputed).

17. Force Majeure. Contractor shall not be held responsible for delays nor be subject to liquidated damages when such delays are caused by conditions beyond its control, including without limitation:

17.1. Acts of God, fire, explosion, epidemic, cyclone, flood, war, strikes, revolution, civil commotion, or acts of public enemies; and

17.2. Change of law and order, proclamation, regulation, ordinance, or governmental requirement.

Upon cessation of work for reason of force majeure delays, Contractor shall use its best efforts to meet the schedule set forth in Section 5 of this Contract.

18. Subcontracting. The Contractor shall not, without the prior written approval of the City's Using Agency, subcontract, in whole or in part, any of the Contractor's services. Any subcontractor so approved shall be required to secure and maintain insurance coverage equal to or better than that required of the Contractor and shall name the City as an additional insured party and said subcontractors shall deliver to the City a certificate of insurance evidencing such coverages. All subcontractors shall comply with all federal, state and local, laws, regulations and ordinances but such requirement shall not relieve the Contractor from its requirement that all services provided hereunder shall comply with all Federal, State and local, laws, regulations and ordinances.

18.1. The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by the Contractor.

18.2. The Contractor is responsible for and shall control activities of its subcontractors, and the subcontractors shall consult and cooperate with one another and other contractors working on the Project site. Each subcontractor shall furnish all necessary information to other subcontractors and shall lay out and install its own work so as to avoid any delays or interferences with the work of another. Any cost for changes, cutting and/or repairing, made necessary by failure to observe the above requirements shall be borne by the Contractor or subcontractor responsible for such failure or neglect.

18.3. The Contractor shall not, without the prior written approval of the City's Using Agency, substitute, terminate, replace or otherwise remove a subcontractor.

19. Assignability. The Contractor shall not assign any interest in this Contract, and shall not transfer any interest in the same (whether by assignment or novation) without the prior written approval of the City; provided, however, that claims for money due or to become due the Contractor from the City under this Contract may be assigned to a bank, trust, company, or

other financial institution, or to a Trustee in Bankruptcy, without such approval. Notice of any such assignment or transfer shall be furnished promptly to the City.

20. Audit. The City reserves the right to audit the Contractor's books of account in relation to this Contract any time during the period of this Contract or at any time during the twelve month period immediately following the closing or termination of this Contract. In the event the City elects to make such an audit, the Contractor shall immediately make available to the City all records pertaining to this Contract, including, but not limited to, payroll records, bank statements and canceled checks.

21. Interest of City Officials. No member of the governing bodies of the City, and no other officer, employee, or agent of the City who exercises any functions or responsibilities in connection with the carrying out of the Project to which this Contract pertains, shall have any personal interest, direct or indirect, in this Contract.

22. Interest of Contractor. The Contractor covenants that it presently has no interest and shall not acquire any interest, direct or indirect, in the Project or any parcel of land therein or any other interest which would conflict in any manner or degree with the performance of its services hereunder. The Contractor further covenants that in the performance of this Contract no person having any such interest shall be employed.

23. Entire Contract. This Contract shall constitute the complete and exclusive statement of the contract between the parties as it relates to this transaction and supersedes all previous agreements and understandings, whether written or oral, relating to such subject matter. Any amendment to this Contract must be in writing and agreed to and executed by the City and the Contractor, and must comply with the City's Charter and Code of Ordinances.

24. Independent Contractor Relationship. The relationship between the City and the Contractor is that of client and independent contractor. No agent, employee, or servant of the Contractor shall be deemed to be an employee, agent or servant of the City. The Contractor shall be solely and entirely responsible for its acts and the acts of its agents, employees, servants and subcontractors during the performance of this Contract.

25. Severability. Whenever possible, each provision of this Contract shall be interpreted in such a manner as to be effective and valid under applicable law. If any provision of this Contract, however, is held to be prohibited or invalid under applicable law, such provision shall be deemed restated to reflect the original intentions of the parties, as nearly as possible in accordance with applicable law, and if capable of substantial performance, the remaining provisions of this Contract shall be enforced as if this Contract was entered into without an invalid provision. If the ruling and/or controlling principle of law or equity leading to the ruling is subsequently overruled, modified or amended by legislation, judicial or administrative action, then the provision(s) in question as originally set forth in this Contract shall be deemed valid and enforceable to the maximum extent permitted by the new controlling principal of law or equity.

26. Survival. Any provisions of this Contract that impose continuing obligations on the parties shall survive the expiration or termination of this Contract for any reason.

27. Changes in the Project: Change Orders.

27.1. Requests for Change Orders. The City reserves the right on its own volition, or based upon a proposal for a Change Order submitted in written form with a thorough explanation by the Contractor, to request from time to time any changes to the requirements and specifications of this Contract and the products to be provided and the functions and services to be performed by the Contractor under this Contract. Such changes must be authorized by the City. The City will not approve of any change orders, deletions, additions, or additional work items to the Scope of Services or any change in the terms and conditions of this Contract except by means of a City authorized amended Scope of Services, applicable and restricted to those items set forth in §1, above, or Change Order issued as set forth in this section, except in the event of an emergency endangering life or property.

27.2. Procedures.

27.2.1 The Contractor's Response to a Change Request.

i. Within thirty (30) calendar days after receipt of a request by the City for any such change or such other period of time as the Parties may mutually agree to in writing, the Contractor shall submit to the City a proposal describing any changes in Contract Milestones or Contract completion dates, products, functions, timing of delivery, assignment of personnel, and the like, and any associated price adjustment. The Contractor's proposal shall describe, in detail, the basis for the proposed price adjustment, including the charges for any products required to implement the change request.

ii. To the extent that additional cost or cost savings result from a change in required products, the Contractor shall obtain any additional products and provide them to the City at a negotiated price acceptable to the City and the Contractor. Similarly, if the change request is expected to result in a reduction in products required to perform the services, the Contractor's charges shall be reduced by the cost savings resulting from the products eliminated by the change request**.**

27.2.2 City's Acceptance of Change Request. If the City accepts the Contractor's proposal, the City shall issue a change order referencing the Contractor's proposal and both parties shall sign the change order. The Contractor shall not implement any change request until the City has issued a valid, properly executed, change order.

27.2.3 City's Rejection of Change Request. If the City does not accept the Contractor's proposal, the City may within two weeks of such non-acceptance:

(i) withdraw its change request; or, **(ii)** modify its change request, in which case the procedures set forth above shall apply to the Contractor's response to the modified change request.

27.3. City Discretion. The City may, in its sole discretion, approve the proposed Change Order and shall forward same for additional signatures under the following conditions: **(i)** If it conforms to provisions of applicable laws, and **(ii)** if it is consistent with this Contract, and **(iii)** if the time of performance of this Contract will not be unreasonably delayed, **(iv)** the Final Completion date is not changed, **(v)** if the Change Order requires a change to the Final Completion date, such change has been authorized by an approved, executed, written Amendment to this Contract, and **(vii)** if the Change Order requires an increase in the price of the Contract, the City **(1)** has sufficient funds, and **(2)** if a budget transfer is required to cover the cost of the proposed Change Order, such transfer has secured the written approval of the Board of Aldermen and other required regulatory agencies.

27.4. Change Orders Governed by the Provisions of this Contract. All work performed under a Change Order is governed by the provisions of this Contract.

28. Conflicts or Disputes. This Contract represents the concurrence between the City and the Contractor and governs all disputes between them. In the instance of a conflict or dispute over issues not specifically referenced within the Contract, the following documents shall be used as historical documents, without regard to the order of precedence, to resolve such conflicts or disputes, as follows: **(i)** the City's **RFP Number 7931** and **(ii)** the Contractor's Bid response to **RFP Number 7931**, dated _____. Said historical documents are attached hereto as part of **Attachment A.**

28.1. Procedure. This procedure supersedes all statements to the contrary occurring either in proposals or other prior agreements, oral or written, and all other communications between the parties relating to this subject.

28.2. Presumption. This Contract or any section thereof shall not be construed against any party due to the fact that the Contract or any section thereof was drafted by such party.

29. Disputes; Legal Proceedings; Waiver of Trial by Jury and Continued Performance. The Contractor agrees that its waives a trial by jury as to any and all claims, causes of action or disputes arising out of this Contract or services to be provided pursuant to this Contract. Notwithstanding any such claim, dispute or legal action, the Contractor shall continue to perform services under this Contract in a timely manner, unless otherwise directed by the City.

30. Binding Contract. The City and the Contractor each bind themselves, and their successors, assigns and legal representatives to the other party to this Contract and to the successors, assigns and legal representatives of such other party with respect to all covenants of this Contract.

31. Waiver. Any waiver of the terms and conditions of this Contract by either of the parties hereto shall not be construed to be a waiver of any other term or condition of this Contract.

32. Governing Laws. This Contract, its terms and conditions and any claims arising there from shall be governed by the laws of the State of Connecticut.

33. Notice. Except as otherwise specifically prohibited in this Contract, whenever under this Contract approvals, authorizations, determinations, notices, satisfactions or waivers are required or permitted, such items shall be effective and valid only when given in writing signed by a duly authorized officer of the City or the Contractor, and delivered in hand or sent by mail, postage prepaid, to the party to whom it is directed, which until changed by written notice, are as follows:

Contractor:

City: City of Waterbury
Chase Municipal Building
235 Grand Street
Waterbury, CT 06702

34. City Code of Ordinances, Ethics and Conflict of Interest Code, Provisions.
The Person (the term "Person" shall herein be as defined in Section 38 of the City's Code of Ordinances) supplying the labor, services, equipment, materials, reports, plans, specifications, drawings, deliverables, incidentals, etc. under this Contract shall comply with all applicable Federal, State and Municipal statutes, regulations, charters, ordinances, rules, etc, whether or not they are expressly stated in this Contract, including but not limited to the following:

34.1. It shall be a material breach of this Contract, and, except as may be permitted by regulations or rulings of the City of Waterbury Board of Ethics it shall be a violation of the City's Code of Ordinances, for any Public Official, City Employee or Member of a Board or Commission who is participating directly or indirectly in the procurement process as set forth in the City's Code of Ordinances, including those participating in exempt transactions, to become or be the employee of any person contracting with the governmental body by whom the Official, Employee, or Board or Commission member is employed or is a member.

34.2. It shall be a material breach of this Contract, and it shall be a violation of the City's Code of Ordinances for any Person to offer, give, or agree to give any current or former Public Official, Employee or Member of a Board or Commission, or for such current or former Public Official, Employee or Member of a Board or Commission to solicit, demand, accept or agree to accept from another Person, a gratuity or an offer of

employment in connection with any: decision; approval; disapproval; recommendation; preparation of any part of a program requirement or a requisition; influencing the content of any specification or procurement standard; or rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter, pertaining to any program requirement or a Contract or Purchase Order, or to any solicitation or proposal therefore.

34.3. It shall be a material breach of this Contract and it shall be a violation of the City's Code of Ordinances for any payment, Gratuity, or offer of employment to be made as an inducement for the award of a subcontract or order, by or on behalf of a subcontractor, the prime Contractor or higher tier subcontractor or any Person associated therewith, under a Contract or Purchase Order to the City.

34.4. The value of anything transferred or received in violation of the City's Charter, Code of Ordinances, and/or regulations promulgated there under, by any Person subject to said Charter and/or Ordinances may be recovered by the City.

34.5. Upon a showing that a subcontractor made a kickback to the City, a prime Contractor or a higher tier subcontractor in connection with the award of a subcontract or order there under, it shall be conclusively presumed that the amount thereof was included in the price of the subcontract or order and ultimately borne by the City and will be recoverable hereunder from the recipient. In addition, said value may also be recovered from the subcontractor making such kickbacks. Recovery from one offending party shall not preclude recovery from other offending parties.

34.6. It shall be a material breach of this Contract and it shall be a violation of the City's Code of Ordinances for a Person to be retained, or to retain a Person, to solicit or secure a contract with the City upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee; and every Person, before being awarded a City Contract, shall deliver to the City, on a City authored form, a representation that such Person has not retained anyone in violation of this subsection 34.6, the failure to deliver said form being a material breach of this Contract and a violation of the City's Code of Ordinances. Note, however, this subsection 34.6 shall not apply to full-time Employees who, as a condition of their employment, may be entitled to bonuses or other fees in accordance with their employment relationship.

34.7. The Person hereby expressly represents that he/she/it has complied with those sections of the City's Code of Ordinances requiring that said Person has **(i)** delivered to the City an affidavit, on a City authored form, stating that the Person and its affiliates have no delinquent taxes or other financial obligations owned to the City; **(ii)** filed the City authored financial disclosure statement form as set forth in the City's Code of Ordinances regarding disclosure of financial interests; **(iii)** delivered to the City a written acknowledgement, on a City authored form, evidencing receipt of a copy of the "Ethics and Conflict of Interest" ordinance for the City of Waterbury and hereby expressly represents that said Person is in full compliance with the entirety of said

Code of Ordinances; and **(iv)** filed a current list of all taxable personal and real property as required by the State of Connecticut General Statutes. Any violation of this subsection 34.7 shall be deemed a material breach of this Contract and shall be a violation of the City's Code of Ordinances.

34.8. The definitions set forth in the City's Code of Ordinances shall be the primary source for interpretation of the forgoing subsections 34.1-34.7.

34.9. The Contractor is hereby charged with the requirement that it shall have knowledge of, and shall fully comply with, all relevant provisions of the City's Charter and all relevant provisions of the City's Code of Ordinances, including without limitation Chapters 93, titled "Discriminatory Practices", Chapter 38 titled "Centralized Procurement System", and Chapter 39 titled "Ethics and Conflict of Interest", of said Code as may be amended from time to time.

34.10 The Contractor hereby acknowledges receipt of a copy of the Chapters 38 and 39 of City's Ordinance regarding Procurement, Ethics, and Conflicts of Interest and has familiarized itself with said Code and hereby agrees to adhere to said Code. The text of Chapters 38 and 39 of said Code may be obtained from the Office of the City Clerk of the City and on the internet at the City Clerk's web site: https://www.waterburyct.org/services/city-clerk/code-of-ordinances [click link titled "The City of Waterbury Code of Ordinances *Revised 12/31/19".* For Chapter 38, click on "TITLE III: ADMINISTRATION", then click on "CHAPTER 38: CENTRALIZED PROCUREMENT SYSTEM". For Chapter 39, click on "TITLE III: ADMINISTRATION", then click on "CHAPTER 39: ETHICS AND CONFLICTS OF INTEREST".

34.11. The Contractor is hereby charged with the requirement that it shall have knowledge of, and shall fully comply with, the City's Ordinance Sections 34.15 through 34.99 entitled, "Ordinance Concerning the Hiring of Waterbury Residents on Certain Publicly-Funded Construction Projects," and the State of Connecticut Legislature's Special Act No. 01-1.

34.12. Every Person who conducts business with, contracts, with or provides commodities or services to the City, is charged with notice of the extent of the powers and authority, and the limitations thereon, of the Public Officials and Employees of the City, as set forth in the charter of the City, the Code of Ordinances and any Regulations or Policies pertaining thereto. In particular, and without implying any limitation as to its applicability, it applies to all Persons who participate in the procedures pertaining to the Centralized Procurement System as set forth in Chapter 38, and the Ethics and Conflict of Interest provisions set forth in Chapter 39 of the Code of Ordinances.

34.13. INTEREST OF CITY OFFICIALS. No member of the governing body of the City, and no other officer, employee, or agent of the City who exercises any functions or responsibilities in connection with the carrying out of the project, to which

this agreement pertains, shall have any personal interest, direct or indirect, in this agreement.

34.14. PROHIBITION AGAINST CONTINGENCY FEES. The Contractor hereby represents that it has not retained anyone to solicit or secure a contract with the City upon an agreement or understanding for a commission, percentage, brokerage or contingency fee.

34.15. FREEDOM OF INFORMATION ACT NOTICE. Pursuant to State statute, in the event the total compensation payable to the Contractor set forth in Section 6 of this Contract is greater than $2,500,000.00, the City is entitled to receive a copy of any and all Contractor records and files related to the performance of this Contract and those records and files are subject to the Freedom of Information Act ("the Act") and may be disclosed by the City pursuant to the Act.

35. Definitions. Whenever the following, words, terms, etc. appear in this Contract, the intent and meaning shall be as follows:

35.1 Additional Work: Work required by the City that involves a substantial addition to, deduction from or modification of the Contract Documents.

35.2 Bid or Proposal: The form on which the bidder is to submit a bid for the Work contemplated.

35.3 Bidder: A person, partnership, corporation or other business organization submitting a bid on the form for the Work contemplated.

35.4 City: The City of Waterbury, acting directly or through specifically authorized personnel.

35.5 Construction Supervisor: An employee of the City of Waterbury, or other City duly authorized person.

35.6 Contract Time: The number of days as stated in the Contract to: (i) achieve Substantial Completion, (ii) Final Completion.

35.7 Equal: The recognized equivalent in substance and function; considering quality, workmanship, economy of operation, durability and suitability for purposes intended, and not constituting a change in the Work specified. Whenever the words "equal" or "equals" or words of like import are used, it shall be understood they mean "equal" in the opinion of the City.

35.8 Final Completion: The time at which the Project has progressed to the point where, in the opinion of the City, the Project is complete such that it is ready for final payment as evidenced by the City's, or its duly authorized City representative's, written recommendation of final payment. The terms "finally

complete" and "finally completed" as applied to the Project refer to Final Completion.

35.9 Notice to Proceed: A letter from the City which shall state the date of execution of the Contract and specifically advise the Contractor to begin work on the Contract.

35.10 Plans: All drawings or reproductions of drawings pertaining to the construction of the work contemplated and its appurtenances.

35.11 Project Engineer or Manager: An employee of the City or a person, partnership, corporation or other business organization under contract with the City, commissioned to perform construction administration and inspection duties during construction.

35.12 Shop Drawings: Drawings, diagrams, schedules, performance charts, brochures and other materials prepared by the Contractor or subcontractors, manufacturers or distributors which illustrate some portion of the work.

35.13 Specifications or Technical Specifications: The description, provisions and other requirements pertaining to the materials, methods and manner of performing the Project.

35.14 Subcontractor: A person, partnership, corporation or other business organization supplying labor and/or materials for work at the site of the Project to and under agreement with the Contractor.

35.15 Substantial Completion: The time at which, in the opinion of the Engineer, the Project (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Project (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Project mean Substantial Completion thereof.

35.16 Substitution: A replacement of specified material, device or equipment which is sufficiently different in substance, function, quality or workmanship to become the subject of a Change Order.

35.17 Supplementary General Conditions: An extension to the terms, conditions, and provisions set forth in this document as additional, material, provisions of this Contract.

35.18 Work: All plant, labor, materials, services, supplies, equipment and other facilities and items necessary for, or incidental to, the completion of the terms of the Contract.

35.19 Using Agency: The City of Waterbury Board of Education

[Signature page follows]

IN WITNESS WHEREOF, the parties hereto execute this Contract on the dates signed below.

WITNESSES:

_____

_____

CITY OF WATERBURY

By:_____
Paul K. Pernerewski, Jr., Mayor

Date: _____

WITNESSES:

_____

_____

By:_____

Its _____

Date: _____

ATTACHMENT A

INDEX TO THE SUPPLEMENTARY CONDITIONS OF THE CONTRACT

.ARTICLE NUMBER	TITLE	PAGE NUMBER
1.	PLANS AND SPECIFICATIONS AT THE SITE	_____
2.	CONSTRUCTION PROGRESS SCHEDULE	_____
3.	SCHEDULE OF VALUES; APPLICATION FOR PAYMENT .	_____
4.	PARTIAL PAYMENTS	_____
5.	CONSTRUCTION EQUIPMENT.....	_____
6.	INSPECTION AND TESTS.....	_____
7.	UTILITIES	_____
8.	PROGRESS MEETINGS.....	_____

1. PLANS AND SPECIFICATIONS AT THE SITE

The Contractor shall maintain at the Project site two (2) copies of all Plans, Specifications, Addenda, approved Shop Drawings, Change Orders and other Modifications, Schedules and Instructions, in good order. One copy is to be marked to record all changes made during construction. These shall be available at all times to the Project Engineer and the City or their authorized representatives. At the conclusion of construction, the Contractor is to turn one (1) corrected set over to the Project Engineer.

2. CONSTRUCTION PROGRESS SCHEDULE

A. Within one (1) week after the Notice to Proceed, and prior to commencement of any work on site, the Contractor shall submit for the approval of the City three (3) copies of a Construction Progress Schedule which shall be developed by the Contractor through cooperation of the Project Engineer or authorized personnel. At the same time, the Contractor shall submit the Schedule of Values, Sedimentation and Erosion Control measures, Water Control Plan and Environmental Protection Plan.

B. The Progress Schedule shall indicate the proposed scheduling of the items of work listed in the various divisions of the work in the specifications. The schedule shall also indicate all subcontractors to be utilized on the Contract and the portions of the Contract that they will be performing. The Contractor shall evaluate the status of the Project at least monthly, comparing it to the original schedule which shall be revised as required.

3. SCHEDULE OF VALUES; APPLICATION FOR PAYMENT

A. Within one (1) week after the Notice to Proceed, as a basis for estimating partial payments, the Contractor shall submit for the approval of the City a certified Schedule of Values, broken down into quantities and unit costs for the various parts of the work, divided as may be directed and aggregating the total sum of the Contract; and if required, he shall submit evidence supporting this schedule.

B. The Contractor's requisition for payment shall be subdivided into items to correspond with the approved schedule and shall be in such numbers of copies as may be designated by the City.

4. PARTIAL PAYMENTS

A. The City will review the Contractor's monthly requisitions for Partial Payments to arrive at what is, in its opinion, a fair and just estimate of the materials suitably stored on the site and the amount of work performed on the Contract. At its discretion, the City may allow to be included in the monthly requisitions materials stored off the site. In the event the City allows the Contractor to include in its requisitions payments for materials stored off the site, the Contractor shall also submit any additional bonds and/or insurance certificates relating to off-site stored material, and follow such other procedures as may be required by the City.

B. In making such Partial Payments for the Project, retainage shall be held in accordance with Clean Water Funding Regulations (if applicable).

5. CONSTRUCTION EQUIPMENT

A. The Contractor shall furnish and maintain, at its own cost and risk, all tools, apparatus and appliances, hoists and/or cranes and power for same, scaffolding, runways, ladders, temporary supports and bracing and all other similar work or material necessary to insure speed, convenience and safety in the execution of its Contract. All such items shall be subject to approval of the City, upon Engineer's recommendation, as to general stability, type and location, but the responsibility for proper design, strength and safety shall remain with the Contractor. All such items shall comply with OSHA regulations and all other applicable codes, statutes, rules and regulations.

B. The Contractor shall provide all drains, drainage, ditches and pumping apparatus (including power and attendance for same) that may be necessary to keep all excavations and subgrade work free from water.

6. INSPECTION AND TESTS

A. All material and workmanship (if not otherwise designated by the Specifications)

shall be subject to inspection, examination and testing by the City and/or Project Engineer at any and all times during manufacture and/or construction and at any and all places where such manufacture and/or construction is carried on. All tests shall be made at the Contractor's expense. Notice of the time of all tests to be made at the site shall be given to all interested parties.

B. Without additional charge, the Contractor shall promptly furnish all reasonable facilities, labor and materials necessary to make tests safe and convenient. Special, full size and performance tests shall be as described in the Specifications.

C. If, at any time before final acceptance of the entire Project, the City and/or Project Engineer considers it necessary or advisable to examine any portion of the Project already completed by removing or testing out the same, the Contractor shall upon request furnish promptly all necessary facilities, labor and materials. If such work is found to be defective in any material respect because of a fault of the Contractor or any of its subcontractors, or if any work shall have been covered over without the approval or consent of the City (whether or not it is found to be defective), the Contractor shall be liable for testing costs and all costs of correction, including labor, material, services of required consultants, additional supervision and administrative costs.

7. UTILITIES

A. The accuracy and completeness of the utility information shown on the Plans is not guaranteed. The Contractor shall make its own investigation of the extent and location of utilities and of the possibility of relocation work by the utility companies, and shall plan its operations accordingly. No claim for any delays, damage or extra work occasioned thereby will be allowed.

B. The Contractor shall allow others access to the Project for the purpose of placing, relocating or maintaining utilities, and he shall cooperate in every way in the performance of this Project.

C. The Contractor shall notify the utility owners well in advance of the time the Contractor proposes to perform any work which would endanger utility installations, and the Contractor shall cooperate with the utility owners in relocating and/or protecting such installations during construction operations.

D. No payment will be made to the Contractor for locating, protecting and making arrangements for relocating public utilities or for any delays caused thereby. The Contractor shall include all costs of this Project in other scheduled items of the Contract.

E. The Contractor shall contact "Call Before You Dig" at least two days prior to commencing any excavation on the site (toll free in Connecticut at 1-800-922-4455).

8. PROGRESS MEETINGS

Progress meetings will be held weekly at locations, dates and times selected by the OWNER for the purpose of reviewing, scheduling and coordinating the Project's progress as well as other matters.

Attachment C Document

- ADDENDUM/CERTIFICATION/NOTICE OF ACCEPTANCE

ATTACHMENT C

KEVIN MC CAFFERY
DIRECTOR OF PURCHASING
235 GRAND STREET, ROOM 103
WATERBURY, CT 06702

The undersigned declares that the only persons or parties interested in this Proposal as principals are as stated; that the Proposal is made without any collusion with other persons, firms, or corporations; that Proposer has carefully examined the entire Request for Proposal; that Proposer has informed itself fully in regard to all conditions pertaining to the Work and the place where it is to be performed; and that with this representation, the undersigned makes this Proposal. These prices shall cover all expenses incurred in performing the Work required under the Contract Documents, of which this Proposal and Form are a part.

The undersigned agrees and covenants that the Contract Time shall commence on delivery of the City of Waterbury's written notice to proceed, which shall occur after contract execution by both parties.

The undersigned acknowledges receipt of addenda numbered: (insert date)

1 _____ 4 _____

2 _____ 5 _____

3 _____ 6 _____

All Work for this Project shall be performed at the Proposal Prices as described in the Proposal Documents.

The undersigned hereby certifies under the penalties of perjury that this Proposal is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this section, the work "person" shall mean any natural person, joint venture, partnership, corporation, or other business or legal entity.

_____ _____

Social Security Number
or Federal Identification Number

Signature of Individual or Corporate Name

_____

Corporate Officer
(if applicable)

City notice of acceptance should be mailed, telegraphed or delivered to the undersigned Proposer at the following address:

Name _____
By: _____
(Title)
Business Address: _____
(City, State, Zip Code)
_____
_____
Phone: _____
Email:_____
Date: _____

Note: If the Proposer is a corporation, indicate State of incorporation under signature, and affix corporate seal; if a partnership, give full names and residential addresses, if different from business address.

Attachment D Document

- INSURANCE REQUIREMENTS

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Tinker Elementary School Roof Replacement
RFP# 7931
Project 151-0309RR

Attachment D
Insurance Requirements

Contractor/Vendor shall agree to maintain in force at all times during the contract the following minimum coverages and shall name the City of Waterbury and the Waterbury Board of Education as Additional Insured on a primary and non-contributory basis to all policies, except Workers Compensation. All policies should also include a Waiver of Subrogation. Insurance shall be written with Carriers approved in the State of Connecticut and with a minimum AM Best's rating of "A"VIII.

If any policy is written on a "Claims Made" basis, the policy must be continually renewed for a minimum of two (2) years from the completion date of this contract. If the policy is replaced and/or the retroactive date is changed, then the expiring policy must be endorsed to extend the reporting period for claims for the policy in effect during the contract for two (2) years from the completion date.

Original, completed Certificates of Insurance must be presented to the City of Waterbury and the Waterbury Board of Education prior to contract issuance. Contractor/Vendor agrees to provide replacement/renewal certificates at least 30 days prior to the expiration date of the policies. Should any of the above described policies be cancelled, limits reduced or coverage altered, 30 days written notice must be given to the City of Waterbury and the Waterbury Board of Education.

General Liability:	**$1,000,000 each Occurrence** **$2,000,000 General Aggregate** **$2,000,000 Products/ Completed Operations Aggregate**
Auto Liability:	**$1,000,000 Combined Single Limit each Accident** **Any Auto, All Owned and Hired Autos**
Workers Compensation:	**WC Statutory Limits** **Employer Liability (EL)** **$1,000,000 EL each Accident** **$1,000,000 EL Disease each Employee** **$1,000,000 EL Disease Policy Limits**
Excess/Umbrella Liability:	**$10,000,000 each Occurrence** **$10,000,000 Aggregate**

Wording for Additional Insured Endorsement and Waiver of Subrogation:

The City Waterbury and its Board of Education is listed as an Additional Insured on a primary and non-contributory basis on all policies except Workers Compensation. All policies shall include a Waiver of Subrogation.

Attachment E Document

- COST PROPOSAL FORM

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Tinker Elementary School Roof Replacement
RFP# 7931
Project 151-0309RR
ATTACHMENT E

Price Proposal

(Must be submitted as part of Proposal in a separate sealed envelope, marked "Confidential: Price Proposal.")

Date: _____

Kevin McCaffery
Director of Purchasing
City of Waterbury
235 Grand Street, Room 103
Waterbury, CT 06702

Sir:

Pursuant to and in compliance with your RFP, the Undersigned,

_____
(Print or Type Company/Corporate Name)

_____
(Print or Type Business Address)
_____

_____

_____

having carefully examined all the RFP Documents, together with all Addenda, as acknowledged on Attachment C, and having informed itself fully in regard to all conditions and related requirements pertaining to the performance of services required under this RFP; and that with this representation, the undersigned makes this Proposal, as follows:

[Proposal continued on following page(s)]

Roof Replacement		
Description	**Amount (In Words)**	**Amount (In $)**
Tinker Elementary		**$**
	GRAND TOTAL	**$**

Alternates:

The undersigned proposes to furnish all Labor, Materials, Equipment and Services necessary to construct the items listed in the Alternates described in Section 012300 for the stipulated sum of:

DEDUCT ALTERNATE #1: Twenty (20) Year Warranty: Deduct from the Base Bid a Total of:

$ _____ Dollars ($ .00).
written figure

The project schedule will be (increased/decreased) by _____ calendar days to complete the work indicated under Deduct Alternate 1.

Unit Prices (See Section 012200):

As required by the Base Bid, should inadequate, deteriorated, or damaged materials be required to be removed as determined by the Architect or Owner, the cost to remove and replace the referenced material, (or credit for specified material not provided or installed) including all labor, material, equipment, and related furnishings is as follows:

Item	Description	Unit Price
1.	Tectum roof deck, thickness to match existing roof deck to be removed (including deteriorated roof deck removal, credit and add)	$ sf
2.	Add pressure treated wood blocking, as specified, cut to fit around roof structure and systems installed	$ bf
3.	Deduct pressure treated wood blocking, as specified, cut to fit around roof structure and system installed	$ bf

END OF ATTACHMENT E

Attachment G Document

- SCOPE OF SERVICES – PROJECT MANUAL AND ARCHITECTURAL DRAWINGS

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Tinker Elementary School Roof Replacement
RFP# 7931
Project 151-0309RR

ATTACHMENT G

Scope of Services

GENERAL DESCRIPTION

Technical Specifications

See architectural design specs and manual.

PROJECT MANUAL

CITY OF WATERBURY
CONNECTICUT

ROOF REPLACEMENT

B.W. TINKER ELEMENTARY SCHOOL
809 HIGHLAND AVENUE
WATERBURY, CT 06708

STATE PROJECT #151-0309 RR
S/P+A PROJECT #22.059

VOLUME 1 OF 1

BC/PCR Submission: March 27, 2023
Issued for Bid: October 23, 2023

Architects | Engineers | Interior Designers
Silver Petrucelli + Associates, Inc.
3190 Whitney Avenue, Hamden, CT 06518
311 State Street, New London, CT 06320

ROOF REPLACEMENT

B.W. TINKER ELEMENTARY SCHOOL
809 HIGHLAND AVE
WATERBURY, CT 06708
STATE PROJECT #151-0309 RR

S/P+A PROJECT #22.059

DIVISION 00 – PROCUREMENT AND CONTRACT REQUIREMENTS		PAGES
	Prevailing Wage Rate Information	29
	Drawing List	1
DIVISION 01 – GENERAL REQUIREMENTS		
Section 011000	Summary of Work	3
Section 012100	Allowances	3
Section 012200	Unit Prices	1
Section 012300	Alternates	2
Section 012500	Substitution Procedures	4
Section 012600	Contract Modification Procedures	3
Section 012900	Payment Procedures	4
Section 013100	Project Management and Coordination	5
Section 013200	Construction Progress Documentation	6
Section 013233	Photographic Documentation	2
Section 013300	Submittal Procedures	8
Section 014000	Quality Requirements	7
Section 014200	References	7
Section 015000	Temporary Facilities and Controls	4
Section 016000	Product Requirements	5
Section 017300	Execution	6
Section 017700	Closeout Procedures	4
Section 017823	Operation and Maintenance Data	7
Section 017839	Project Record Documents	3
DIVISION 02 – EXISTING CONDITIONS		
Section 020750	Selective Demolition	3
Section 020800	Asbestos Removal	19
Section 020850	Certificate of Worker's Acknowledgement	1
	Limited Asbestos Inspection Report, June 12, 2023	21
DIVISION 03 – CONCRETE		
Section 035113	Cementitious Wood Fiber Decks	6
DIVISION 05 – METALS		
Section 055000	Metal Fabrications	5
DIVISION 06 – WOOD, PLASTICS AND COMPOSITES		
Section 061000	Rough Carpentry	4

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

Section 070150.19	Preparation for Reroofing	6
Section 075216	Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing	11
Section 076200	Sheet Metal Flashing and Trim	9
Section 077100	Roof Specialties	7
Section 077129	Manufactured Roof Expansion Joints	4
Section 077200	Roof Accessories	6
Section 078413	Penetration Firestopping	4
Section 079200	Joint Sealants	5

DIVISION 22 – PLUMBING

Section 220719	Plumbing Piping Insulation	15
Section 221423	Storm Drainage Piping Specialties	2

END OF TABLE OF CONTENTS

CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM

Construction Manager at Risk/General Contractor/Prime Contractor

I,_____ of _____
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the _____
Company Name

_____
Street

_____
City

and all of its subcontractors will pay all workers on the

_____
Project Name and Number

_____
Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

_____
Signed

Subscribed and sworn to before me this _____ day of _____,_____.

_____
Notary Public

Return to:

Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

Minimum Rates and Classifications for Building Construction

ID#: 23-56222

Connecticut Department of Labor
Wage and Workplace Standards

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number: Project Town: Waterbury
State#: FAP#:
Project: BW Tinker Elementary School Roof Replacement

CLASSIFICATION	Hourly Rate	Benefits
1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
1c) Asbestos Worker/Heat and Frost Insulator	45.56	32.65
2) Boilermaker	45.21	29.05
3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	39.4	34.62 + a
3b) Tile Setter	37.1	30.52
3c) Tile and Stone Finishers	30.0	25.30
3d) Marble & Terrazzo Finishers	31.07	24.23
3e) Plasterer	42.77	29.63

As of: December 21, 2023

4) Group 1: General laborers, carpenter tenders, concrete specialists, wrecking laborers and fire watchers.	33.5	25.59
4) Group 1a: Acetylene Burners (Hours worked with a torch)	34.5	25.59
4a) Group 2: Mortar mixers, plaster tender, power buggy operators, powdermen, fireproofer/mixer/nozzleman (Person running mixer and spraying fireproof only).	33.75	25.59
4b) Group 3: Jackhammer operators/pavement breaker, mason tender (brick), mason tender (cement/concrete), forklift operators and forklift operators (masonry).	34.0	25.59
4c) **Group 4: Pipelayers (Installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license) (the pipelayer rate shall apply only to one or two employees of the total crew who primary task is to actually perform the mating of pipe sections) P6 and P7 rate is $26.80.	34.5	25.59
4d) Group 5: Air track operator, sand blaster and hydraulic drills.	34.25	25.59
4e) Group 6: Blasters, nuclear and toxic waste removal.	36.5	25.59
4f) Group 7: Asbestos/lead removal and encapsulation (except it's removal from mechanical systems which are not to be scrapped).	36.5	25.59
4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew.	31.78	25.59
4h) Group 9: Top men on open air caisson, cylindrical work and boring crew.	31.24	25.59
4i) Group 10: Traffic Control Signalman	20.1	25.59

4j) Group 11: Toxic Waste Removers A or B With PPE	36.5	25.59
5) Carpenter, Acoustical Ceiling Installation, Soft Floor/Carpet Laying, Metal Stud Installation, Form Work and Scaffold Building, Drywall Hanging, Modular-Furniture Systems Installers, Lathers, Piledrivers, Resilient Floor Layers.	37.61	27.61
5a) Millwrights	38.02	28.41
6) Electrical Worker (including low voltage wiring) (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	43.4	32.07+3% of gross wage
7a) Elevator Mechanic (Trade License required: R-1,2,5,6)	61.42	37.335+a+b
-----LINE CONSTRUCTION----		
Groundman	26.5	6.5% + 9.00
Linemen/Cable Splicer	48.19	6.5% + 22.00
8) Glazier (Trade License required: FG-1,2)	41.18	24.55 + a
9) Ironworker, Ornamental, Reinforcing, Structural, and Precast Concrete Erection	42.37	40.02 + a
----OPERATORS----		
Group 1: Crane Handling or Erecting Structural Steel or Stone; Hoisting Engineer (2 drums or over). (Trade License Required)	52.78	27.80 + a
Group 1a: Front End Loader (7 cubic yards or over); Work Boat 26 ft. and Over	48.37	27.80 + a

As of: December 21, 2023

Group 2: Cranes (100 ton rate capacity and over); Bauer Drill/Caisson. (Trade License Required)	52.41	27.80 + a
Group 2a: Cranes (under 100 ton rated capacity).	51.51	27.80 + a
Group 2b: Excavator over 2 cubic yards; Pile Driver ($3.00 premium when operator controls hammer)	48.0	27.80 + a
Group 3: Excavator; Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar);Grader Operator; Bulldozer Finegrade. (slopes, shaping, laser or GPS, etc.). (Trade License Required)	47.1	27.80 + a
Group 4: Trenching Machines; Lighter Derrick; CMI Machine or Similar; Koehring Loader (Skooper); Goldhofer.	46.64	27.80 + a
Group 5: Specialty Railroad Equipment; Asphalt Spreader, Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24 mandrel).	45.92	27.80 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	45.92	27.80 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	45.55	27.80 + a
Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under mandrel).	45.14	27.80 + a
Group 8: Mechanic; Grease Truck Operator; Hydroblaster; Barrier Mover; Power Stone Spreader; Welding; Work Boat Under 26 ft.; Transfer Machine; Rigger Foreman.	44.67	27.80 + a
Group 9: Front End Loader (under 3 cubic yards); Skid Steer Loader regardless of attachments; (Bobcat or Similar); Forklift, Power Chipper; Landscape Equipment (including Hydroseeder); Vacuum Excavation	44.14	27.80 + a

Truck and Hydrovac Excavation Truck (27 HG pressure or greater).		
Group 10: Vibratory hammer; ice machine; diesel and air, hammer, etc.	41.69	27.80 + a
Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment.	41.69	27.80 + a
Group 12: Wellpoint Operator.	41.61	27.80 + a
Group 13: Compressor Battery Operator.	40.92	27.80 + a
Group 14: Elevator Operator; Tow Motor Operator (solid tire no rough terrain).	39.54	27.80 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	39.06	27.80 + a
Group 16: Maintenance Engineer.	38.28	27.80 + a
Group 17: Portable Asphalt Plant Operator; Portable Crusher Plant Operator; Portable Concrete Plant Operator; Portable Grout Plant Operator; Portable Water Filtration Plant Operator.	43.46	27.80 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (Minimum for any job requiring a CDL license); Rigger; Signalman.	40.54	27.80 + a
------PAINTERS (Including Drywall Finishing)------		
10a) Brush and Roller	37.62	24.55
10b) Taping Only/Drywall Finishing	38.37	24.55

10c) Paperhanger and Red Label	38.12	24.55
10e) Blast and Spray	40.62	24.55
11) Plumber (excluding HVAC pipe installation) (Trade License required: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2)	48.28	35.50
12) Well Digger, Pile Testing Machine	37.26	24.05 + a
Roofer: Cole Tar Pitch	44.5	23.30 + a
Roofer: Slate, Tile, Composition, Shingles, Singly Ply and Damp/Waterproofing	43.0	23.30 + a
15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	41.89	43.22
16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G-9)	48.28	35.50
------TRUCK DRIVERS------		
17a) 2 Axle, Helpers	32.16	30.51 + a
17b) 3 Axle, 2 Axle Ready Mix	32.27	30.51 + a
17c) 3 Axle Ready Mix	32.33	30.51 + a
17d) 4 Axle	32.39	30.51 + a
17e) 4 Axle Ready Mix	32.44	30.51 + a

As of: December 21, 2023

17f) Heavy Duty Trailer (40 Tons and Over)	34.66	30.51 + a
17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	32.44	30.51 + a
17h) Heavy Duty Trailer up to 40 tons	33.39	30.51 + a
17i) Snorkle Truck	32.54	30.51 + a
18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	47.55	32.27 + a
19) Theatrical Stage Journeyman	25.76	7.34

Welders: Rate for craft to which welding is incidental.

**Note: Hazardous waste removal work receives additional $1.25 per hour for truck drivers.*

***Note: Hazardous waste premium $3.00 per hour over classified rate*

Crane with 150 ft. boom (including jib) - $1.50 extra
Crane with 200 ft. boom (including jib) - $2.50 extra
Crane with 250 ft. boom (including jib) - $5.00 extra
Crane with 300 ft. boom (including jib) - $7.00 extra
Crane with 400 ft. boom (including jib) - $10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyperson instructing and supervising the work of each apprentice in a specific trade.

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page: www.ct.gov/dol. For those without internet access, please contact the division listed below.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of: December 21, 2023

As of: December 21, 2023

Connecticut Department of Labor
Wage and Workplace Standards Division
FOOTNOTES

⇨ Please Note: If the "Benefits" listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the "Benefits" section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons
(Building Construction) and
(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Elevator Constructors: Mechanics

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.

b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators
(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

STATUTE 31-55a

- SPECIAL NOTICE –

To All State and Political Subdivisions,Their Agents, and Contractors
Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the ***contractor's*** responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web page: www.ctdol.state.ct.us. For those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project. All subsequent annual adjustments will be posted on our Web Site for contractor access.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.

Information Bulletin
Occupational Classifications

The Connecticut Department of Labor has the responsibility to properly determine *"job classification"* on prevailing wage projects covered under C.G.S. Section 31-53(d).

Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification. If unsure, the employer should seek guidelines for CTDOL.

Below are additional clarifications of specific job duties performed for certain classifications:

- ***ASBESTOS WORKERS***

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

- ***ASBESTOS INSULATOR***

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

- ***BOILERMAKERS***

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

- ***BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO WORKERS, TILE SETTERS***

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

- ***<u>CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS</u>***

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

- **LABORER, CLEANING**

• The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

- **DELIVERY PERSONNEL**

• If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages <u>are not required</u>. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.

• An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer or tradesman, and not a delivery personnel.

- ***<u>ELECTRICIANS</u>***

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. ****License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.***

- ***ELEVATOR CONSTRUCTORS***

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. ****License required by Connecticut General Statutes: R-1,2,5,6.***

- ***FORK LIFT OPERATOR***

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

- ***GLAZIERS***

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers, which require equal composite workforce.

- ***IRONWORKERS***

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which require equal composite workforce.

- ***INSULATOR***

• Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings.

- ***LABORERS***

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), decorative security fence (non-metal).

installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

- ***PAINTERS***

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hhg for any and all types of building and residential work.

- ***LEAD PAINT REMOVAL***

• Painter's Rate

1. Removal of lead paint from bridges.
2. Removal of lead paint as preparation of any surface to be repainted.
3. Where removal is on a Demolition project prior to reconstruction.

• Laborer's Rate

1. Removal of lead paint from any surface NOT to be repainted.
2. Where removal is on a *TOTAL* Demolition project only.

- ***PLUMBERS AND PIPEFITTERS***

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. ****License required per Connecticut General Statutes: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.***

- ***POWER EQUIPMENT OPERATORS***

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. ****License required, crane operators only, per Connecticut General Statutes.***

- ***ROOFERS***

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (demolition or removal of any type of roofing and or clean-up of any and all areas where a roof is to be relaid.)

- ***SHEETMETAL WORKERS***

Fabricate, assembles, installs and repairs sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, facia, louvers, partitions, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers. To include testing and air –balancing ancillary to installation and construction.

- ***SPRINKLER FITTERS***

Installation, alteration, maintenance and repair of fire protection sprinkler systems. ****License required per Connecticut General Statutes: F-1,2,3,4.***

- ***TILE MARBLE AND TERRAZZO FINISHERS***

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

- **TRUCK DRIVERS**

~How to pay truck drivers delivering asphalt is under REVISION~

Truck Drivers are requires to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. ****License required, drivers only, per Connecticut General Statutes.***

For example:

• Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
• Hauling material off site is not covered provided they are not dumping it at a location outlined above.
• Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

➢ *Any questions regarding the proper classification should be directed to:*
Public Contract Compliance Unit
Wage and Workplace Standards Division
Connecticut Department of Labor
200 Folly Brook Blvd, Wethersfield, CT 06109
(860) 263-6543.

Sec. 31-53b. Worker training requirements for public works projects. Enforcement. Regulations. Exceptions. (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (h) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 46 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268, and on or after July 1, 2012, that any plumber or electrician subject to the continuing education requirements of section 20-334d, who has completed a course of at least ten hours in duration in construction safety and health approved by federal Occupational Safety and Health Administration five or more years prior to the date such electrician or plumber begins work on such public works project, has completed a supplemental refresher training course of at least four hours in duration in construction safety and health taught by a federal Occupational Safety and Health Administration authorized trainer.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2012, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in the case of a supplemental refresher training course, shall include, but not be limited to, an update of revised Occupational Safety and Health Administration standards and a review of required construction hazards training, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project or, in the case of supplemental refresher training, a student course completion card issued by said Occupational Safety and Health Administration authorized

trainer dated not earlier than five years prior to the date such electrician or plumber begins work on such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1; P.A. 10-47, S. 2; P.A. 11-63, S. 1)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009; P.A. 10-47 made a technical change in Subsec. (a); P.A. 11-63 amended Subsec. (a) by adding provision re supplemental refresher training course for plumbers and electricians subject to Sec. 20-334d, amended Subsec. (c) by adding provisions re regulations and subject matter of refresher training course and refresher train course student completion cards, and made technical changes, effective July 1, 2011.



Opportunity ⋆ Guidance ⋆ Support

CONNECTICUT DEPARTMENT OF LABOR

THIS IS A PUBLIC WORKS PROJECT

Covered by the

PREVAILING WAGE LAW

CT General Statutes Section 31-53

If you have QUESTIONS regarding your wages
CALL (860) 263-6790

Section 31-55 of the CT State Statutes requires every contractor or subcontractor performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least $100,000)

(1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);

(2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;

(3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least $100,000;

(4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;

(5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;

(6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;

(7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;

(8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;

(9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

(10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;

(11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;

(12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;

(13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;

(14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and

(15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.

(16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTMATELY ARISE CONCERNIG THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

November 29, 2006

Notice

To All Mason Contractors and Interested Parties Regarding Construction Pursuant to Section 31-53 of the Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.

- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

NOTICE

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached “Contracting Agency Certification Form” to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

Inquiries can be directed to 860.263.6790.







CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

Contracting Agency Certification Form

I,_____, acting in my official capacity as _____,
Authorized Representative Title

for _____, located at _____,
Contracting Agency Address

do hereby certify that the total dollar amount of work to be done in connection with

_____, located at _____,
Project name and number Address

shall be $_____, which includes all work, regardless of whether such project contains of one or more contracts.

Contractor Information

Name: _____

Address: _____

Authorized Representative: _____

Approximate Starting Date: _____

Approximate Completion Date: _____

_____ _____
Signature Date

Return to:

Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

[New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

In accordance with Connecticut General Statutes, 31-53 Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency.

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

WEEKLY PAYROLL

Connecticut Department of Labor
Wage and Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

CONTRACTOR NAME AND ADDRESS:

SUBCONTRACTOR NAME & ADDRESS

WORKER'S COMPENSATION INSURANCE CARRIER

POLICY #

EFFECTIVE DATE:
EXPIRATION DATE:

PAYROLL NUMBER | Week-Ending Date | PROJECT NAME & ADDRESS

PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE S	M	T	W	TH	F	S HOURS WORKED EACH DAY	Total ST Hours Total O/T Hours	BASE HOURLY RATE TOTAL FRINGE BENEFIT PLAN CASH	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS FICA	FEDERAL WITH-HOLDING	STATE WITH-HOLDING	LIST OTHER	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
												$ Base Rate	1. $ 2. $ 3. $								
												$ Cash Fringe	4. $ 5. $ 6. $								
												$ Base Rate	1. $ 2. $ 3. $								
												$ Cash Fringe	4. $ 5. $ 6. $								
												$ Base Rate	1. $ 2. $ 3. $								
												$ Cash Fringe	4. $ 5. $ 6. $								
												$ Base Rate	1. $ 2. $ 3. $								
												$ Cash Fringe	4. $ 5. $ 6. $								

12/9/2013
WWS-CP1

*IF REQUIRED

*SEE REVERSE SIDE

PAGE NUMBER _____OF

OSHA 10 ~ATTACH CARD TO 1ST CERTIFIED PAYROLL

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:

1) Medical or hospital care _____ 4) Disability_____

2) Pension or retirement _____ 5) Vacation, holiday_____

3) Life Insurance _____ 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of _____,

I, _____of _____, (hereafter known as

Employer) in my capacity as _____ (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

a) The records submitted are true and accurate;

b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;

c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);

d) Each such employee of the Employer is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;

e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and

f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such employee's name first appears.

_____	_____	_____
(Signature)	(Title)	Submitted on (Date)

Section B: Applies to CONNDOT Projects ONLY

That pursuant to CONNDOT contract requirements for reporting purposes only, all employees listed under Section B who performed work on this project are not covered under the prevailing wage requirements defined in Connecticut General Statutes Section 31-53.

_____	_____	_____
(Signature)	(Title)	Submitted on (Date)

Note: CTDOL will assume all hours worked were performed under Section A unless clearly delineated as Section B WWS-CP1 as such. Should an employee perform work under both Section A and Section B, the hours worked and wages paid must be segregated for reporting purposes.

*****THIS IS A PUBLIC DOCUMENT*****

*****DO NOT INCLUDE SOCIAL SECURITY NUMBERS*****

Weekly Payroll Certification For Public Works Projects (Continued)

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

Week-Ending Date:
Contractor or Subcontractor Business Name:

WEEKLY PAYROLL

PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE S / M / T / W / TH / F / S HOURS WORKED EACH DAY	Total ST Hours Total O/T Hours	BASE HOURLY RATE TOTAL FRINGE BENEFIT PLAN CASH	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS FICA / FEDERAL WITH-HOLDING / STATE WITH-HOLDING / LIST OTHER	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				
						$ Base Rate	1. $ 2. $ 3. $				
						$ Cash Fringe	4. $ 5. $ 6. $				

*IF REQUIRED

NOTICE: THIS PAGE MUST BE ACCOMPANIED BY A COVER PAGE (FORM # WWS-CP1)

ROOF REPLACEMENT

B.W. TINKER ELEMENTARY SCHOOL
809 HIGHLAND AVE
WATERBURY, CT 06708
STATE PROJECT #151-0309 RR

S/P+A PROJECT #22.059

Drawing Number	Drawing Name
	COVER SHEET
C1	CODE INFORMATION
A1	ROOF PLAN
A2	ROOF DETAILS

END OF DRAWING LIST

SECTION 011000 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 PROJECT DESCRIPTION

A. The Work of the Project is defined by the Contract Documents and consists of a partial roof replacement of an existing building.

B. The Work generally includes, but is not necessarily limited to the following major elements:

1. Removal of existing membrane roofing, insulation, cant strips and tapered edges, and metal flashings.
2. Removal and replacement of existing metal ladders, roof hatches and other roof accessories.
3. Removal and replacement of deteriorated roof decking and wood blocking.
4. Removal and replacement of existing roof drains and related piping and insulation.
5. Provision and installation of modified bituminous membranes, underlayment, and flat and tapered insulations.
6. Provision and installation of new flashings, caps, fasciae, and other trim metal work as detailed and specified, including new gutters, collection boxes, downspouts, and scuppers.
7. Provision and installation of new ladders.
8. Removal and offsite disposal of asbestos and hazardous materials.
9. Offsite disposal of all removed materials.

1.3 CONTRACTOR USE OF PREMISES

A. General: Limit use of the premises to construction activities in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

B. Confine operations to as small work areas and accessways as possible. As much as possible and without damage to the finishes, doors, and related building systems, access the project area via the service doors designated by Owner.

C. Keep driveways and entrances serving the premises clear and available to the Owner and emergency vehicles at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.

D. Maintain existing egress patterns, exit doors, and means of egress during construction, which will include the provision of temporary walkways, sidewalks, or other means necessary to provide adequate life safety for the building occupants, particularly at exitways which must continue to be open and serviceable while adjacent construction activity occurs.

E. Use of the Existing Building: Maintain the existing building in a weathertight condition throughout the construction period. Repair damage caused by construction operations. Take

all precautions necessary to protect the building and its occupants during the construction period.

1. Contractor is responsible to secure project area/site from intrusions during unoccupied (after hours) period of time. Any temporary doors and /or window coverings that may be necessary to complete repairs are the Contractors responsibility to furnish and install as part of the project scope.

1.4 OWNER OCCUPANCY

A. Full Owner Occupancy: The Owner's administrative and maintenance staff will occupy the site and existing building during the entire construction period, with children on site during the school year. Cooperate with the Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with the Owner's operations. Pre-schedule construction operations with the Owner for areas that must be evacuated for extended periods, giving the Owner the opportunity to relocate administrative or educational operations to non-affected areas.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

1.5 SPECIAL REQUIREMENTS

A. The Contractor shall insure that all work performed is done so in a safe manner and that all his/her employees shall adhere to all applicable safety procedures and practices at all times. There may be children and staff in the vicinity of the work area during normal working hours. The Contractor shall be aware at all times that additional safety considerations should be taken. Particular care shall be taken by the Contractor, Subcontractors and all those in their employ, that all tools, equipment, ladders, etc. are never left unsupervised.

B. Meaningful Instruction: Meaningful instruction (as determined by the Owner) must be facilitated and possible within the building at all times. This requirement may limit the Contractor's demolition and construction operations as the distraction represented by hammering, material movement, etc. may disrupt classes. No down time or mobilization charges will be permitted should the meaningful instruction requirement suspend the Contractor's operations for any length of time.

C. Testing: During the school year, Smarter Balanced Assessment Consortium may be administered to portions of the student population, which requires absolute concentration on the part of the students. The Owner may prohibit operations during the administration of these assessments. Cooperate with the Owner to determine the schedule, locations of the testing and where operations may proceed with disrupting classroom or roofing operations.

D. Under no circumstances shall the buildings' occupants be subjected to excessive construction noise or vibrations, nor shall they be subject to fumes, odors, or other deleterious effects of the operation. Should material delivery, demolition or construction operations, inclement weather or related schedule conditions produce this situation (as determined by the Owner), the Contractor shall be required to suspend operations that produce the offending effects until such time as the building is not occupied, or as approved by the Owner.

E. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, and other controlled substances inside the building or on the grounds is not permitted. Strict adherence to the regulations will be enforced for the entire duration of the construction.

F. There will be absolutely **no** fraternizing with the students by construction personnel. Anyone caught doing so will be required to leave the jobsite and will not be permitted to return. Such dismissal shall not give the contractor grounds for default on any other contract requirements, including the construction schedule.

G. Site Security – Identification Badges

1. The Contractor shall provide a list of all contact persons. The list shall include each trade, name of Contractor, contact person(s), phone numbers, fax numbers, Federal Employer Identification Number (FEIN), social security number if FEIN is not available, and Connecticut Tax Registration number.
2. Prior to the start of work all Contractor and Sub-Contactor personnel assigned to perform work shall be required to fill out and submit to a background check at a cost provided by the Contractor. All information shall be submitted to the City of Waterbury. Information for background check includes the following:

    a. Identity Verification
    b. Criminal Background
    c. Additional checks as deemed warranted.

3. Security badges will be worn by all project personnel during construction activities. The Contractor will provide badges at no cost to the Owner. The Contractor will be responsible for monitoring the display of badges, including those of the personnel of all subcontractors and visitors to the project site.

H. Public Health Emergency:

1. The Contractor shall anticipate and incorporate in their Bids all potential costs related to a public health emergency such as the COVID-19/Coronavirus Pandemic, including rules, regulations, and recommendations issued by public authorities. The potential costs may include, but are not limited to, costs related to social distancing, manpower levels, project scheduling, construction coordination, material/product supplies and delivery delays, material escalation costs, increased subcontractor/supplier costs, loss of productivity and inefficiency costs, extended general conditions costs, and any other potential costs.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.

1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to the Contractor. If necessary, additional requirements will be issued by Change Order.

B. Types of allowances include the following:

1. Quantity allowances.

C. Related Sections:

1. Section 012200 "Unit Prices" for procedures for using unit prices.
2. Divisions 02 through 49 Sections for items of Work covered by allowances.

1.3 SELECTION AND PURCHASE

A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.

B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

C. Purchase products and systems selected by Architect from the designated supplier.

1.4 SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

C. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.

D. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 COORDINATION

A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.6 QUANTITY/LUMP-SUM ALLOWANCES

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight, and delivery to Project site.

B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner under allowance shall be included as part of the Contract Sum and not part of the allowance.

C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.7 ADJUSTMENT OF ALLOWANCES

A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.

1. Include installation costs in purchase amount only where indicated as part of the allowance.
2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances.
4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.

1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.
2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

A. **Allowance No. 1: Tectum Roof Deck Replacement:** Include in the Base Bid an allowance to replace 610 square feet of tectum decking that may be deteriorated under the existing roofs. Should tectum decking be encountered that at the Architect's direction requires removal, the Contractor shall do so, deducting the amount of the affected installation(s) from the allowance amount. Removal and replacement, to match existing, shall include all fasteners, accessories, removal, and disposal (including all manpower, tools, and materials). Refer to Section 035113 “Cementitious Wood Fiber and Gypsum Decks” for additional information.

END OF SECTION 012100

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for unit prices.

B. Related Sections:

1. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.

1.3 DEFINITIONS

A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. A list of unit prices is included in the Bid Form.

END OF SECTION 012200

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

C. Execute accepted alternates under the same conditions as other work of the Contract. No extensions of time shall be granted for accepted alternates.

D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. **DEDUCT ALTERNATE #1: Twenty (20) Year Warranty:** Deduct from the Base Bid the cost associated from reducing the specified warranty by ten (10) years for a total of twenty (20) on the roofing membrane system indicated in Section 075216 “Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing”.

END OF SECTION 012300

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for substitutions.

B. Related Sections:

1. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.
2. Divisions 02 through 49 Sections for specific requirements and limitations for substitutions.

1.3 DEFINITIONS

A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 SUBMITTALS

A. Substitution Requests: Submit three (3) copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Substitution Request Form: Use **CSI Form 1.5C**, **13.1A**, or comparable form.
2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:

a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
c. Detailed, SIDE-BY-SIDE comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
e. Samples, where applicable or requested.
f. Certificates and qualification data, where applicable or requested.
g. List of similar installations for completed projects with project names and addresses and names and addresses of Architects and Owners.
h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
k. Cost information, including a proposal of change, if any, in the Contract Sum.
l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven (7) days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.

a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

A. Coordination: Modify or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

A. Procurement Substitution Request: Submit to Architect seven (7) days prior to date of bid opening.

B. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than fifteen (15) days prior to time required for preparation and review of related submittals.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
b. Substitution request is fully documented and properly submitted.
c. Requested substitution will not adversely affect Contractor's construction schedule.
d. Requested substitution has received necessary approvals of authorities having jurisdiction.
e. Requested substitution is compatible with other portions of the Work.
f. Requested substitution has been coordinated with other portions of the Work.
g. Requested substitution provides specified warranty.
h. If requested substitution involves more than one (1) contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

C. Substitutions for Convenience: Architect will consider requests for substitution if received within sixty (60) days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
b. Requested substitution does not require extensive revisions to the Contract Documents.
c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
d. Substitution request is fully documented and properly submitted.
e. Requested substitution will not adversely affect Contractor's construction schedule.
f. Requested substitution has received necessary approvals of authorities having jurisdiction.
g. Requested substitution is compatible with other portions of the Work.
h. Requested substitution has been coordinated with other portions of the Work.
i. Requested substitution provides specified warranty.
j. If requested substitution involves more than one (1) contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

B. Related Sections:

1. Section 016000 "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 MINOR CHANGES IN THE WORK

A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions."

1.4 PROPOSAL REQUESTS

A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.

1. Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
2. Within time specified in Proposal Request or twenty (20) days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.

    a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    c. Include costs of labor and supervision directly attributable to the change.
    d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
    e. Quotation Form: Use forms acceptable to Architect.

B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to the Architect.

1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
7. Proposal Request Form: Use form acceptable to Architect.

1.5 ADMINISTRATIVE CHANGE ORDERS

A. Allowance Adjustment: See Section 012100 "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.

B. Unit Price Adjustment: Refer to Section 012200 "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit price work.

1.6 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

1.7 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.

B. Related Sections:

1. Section 012200 "Unit Prices" for administrative requirements governing the use of unit prices.
2. Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
3. Section 013200 "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.
4. Section 013300 "Submittal Procedures" for administrative requirements governing the preparation and submittal of the submittal schedule.

1.3 SCHEDULE OF VALUES

A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.

1. Correlate line items in the schedule of values with other required administrative forms and schedules, including the following:

a. Application for Payment forms with continuation sheets.
b. Submittal schedule.
c. Items required to be indicated as separate activities in Contractor's construction schedule.

2. Submit the schedule of values to Architect at earliest possible date but no later than seven (7) days before the date scheduled for submittal of initial Applications for Payment.

B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one (1) line item for each Specification Section.

1. Identification: Include the following Project identification on the schedule of values:

a. Project name and location.
b. Name of Architect.
c. Architect's project number.
d. Contractor's name and address.
e. Date of submittal.

2. Arrange schedule of values consistent with format of AIA Document G703.

3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five percent (5%) of Contract Sum.
4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.

    a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.

6. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
7. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
8. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.

    a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.

9. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.4 APPLICATIONS FOR PAYMENT

A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.

    1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.

B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.

C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.

D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.

    1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
    2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
    3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.

4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
5. Include updated and approved Contractor's construction schedule, potential Change Order Log and Product Submittal Log.

E. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.

1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
3. Provide summary documentation for stored materials indicating the following:

    a. Materials previously stored and included in previous Applications for Payment.
    b. Work completed for this Application utilizing previously stored materials.
    c. Additional materials stored with this Application.
    d. Total materials remaining stored, including materials with this Application.

F. Transmittal: Submit three (3) signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One (1) copy shall include waivers of lien and similar attachments if required.

1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

G. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.

1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
2. When an application shows completion of an item, submit conditional final or full waivers.
3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
4. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
5. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.

H. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:

1. List of subcontractors.
2. Schedule of values.
3. Contractor's construction schedule (preliminary if not final).
4. Products list (preliminary if not final).
5. Schedule of unit prices.
6. Submittal schedule (preliminary if not final).
7. List of Contractor's staff assignments.
8. List of Contractor's principal consultants.
9. Copies of building permits.

10. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
11. Initial progress report.
12. Report of preconstruction conference.
13. Certificates of insurance and insurance policies.
14. Performance and payment bonds.
15. Data needed to acquire Owner's insurance.

I. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing one hundred percent (100%) completion for portion of the Work claimed as substantially complete.

1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

J. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

1. Evidence of completion of Project closeout requirements.
2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
3. Updated final statement, accounting for final changes to the Contract Sum.
4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
6. AIA Document G707, "Consent of Surety to Final Payment."
7. Evidence that claims have been settled.
8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:

1. General project coordination procedures.
2. Administrative and supervisory personnel.
3. Requests for Information (RFIs).
4. Project meetings.

B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.

C. Related Sections:

1. Section 013200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
2. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
3. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

A. RFI: Request from Owner, Architect, or Contractor seeking information from each other during construction.

1.4 COORDINATION

A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one (1) part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
3. Make adequate provisions to accommodate items scheduled for later installation.

B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

1. Prepare similar memoranda for Owner and separate Contractors if coordination of their Work is required.

C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of Contractor's construction schedule.
2. Preparation of the schedule of values.
3. Installation and removal of temporary facilities and controls.
4. Delivery and processing of submittals.
5. Progress meetings.
6. Pre-installation conferences.
7. Project closeout activities.

D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

1.5 KEY PERSONNEL

A. Key Personnel Names: Within fifteen (15) days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and email addresses. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.

1. Post copies of list in project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

1.6 REQUESTS FOR INFORMATION (RFIs)

A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.

1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:

1. Project name.
2. Project number.
3. Date.
4. Name of Contractor.
5. Name of Architect.
6. RFI number, numbered sequentially.
7. RFI subject.

8. Specification Section number and title and related paragraphs, as appropriate.
9. Drawing number and detail references, as appropriate.
10. Field dimensions and conditions, as appropriate.
11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
12. Contractor's signature.
13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.

    a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.

C. RFI Forms: AIA Document G716 or comparable form.

D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven (7) working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.

1. The following RFIs will be returned without action:

    a. Requests for approval of submittals.
    b. Requests for approval of substitutions.
    c. Requests for coordination information already indicated in the Contract Documents.
    d. Requests for adjustments in the Contract Time or the Contract Sum.
    e. Requests for interpretation of Architect's actions on submittals.
    f. Incomplete RFIs or inaccurately prepared RFIs.

2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."

    a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within ten (10) days of receipt of the RFI response.

E. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven (7) days if Contractor disagrees with response.

F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:

1. Project name.
2. Name and address of Contractor.
3. Name and address of Architect.
4. RFI number including RFIs that were dropped and not submitted.
5. RFI description.
6. Date the RFI was submitted.
7. Date Architect's response was received.
8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

1.7 PROJECT MEETINGS

A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.

1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
3. Minutes: General Contractor or Construction Manager is responsible for recording significant discussions and agreements achieved. General Contractor or Construction Manager is also responsible for distributing the meeting minutes to everyone concerned including Owner and Architect, within three (3) days of the meeting.

B. Preconstruction/Preinstallation Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than fifteen (15) days after execution of the Agreement.

1. Conduct the conference to review responsibilities and personnel assignments.
2. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Discuss items of significance that could affect progress, including the following:

a. Tentative construction schedule.
b. Phasing.
c. Critical work sequencing and long-lead items.
d. Designation of key personnel and their duties.
e. Lines of communications.
f. Procedures for processing field decisions and Change Orders.
g. Procedures for RFIs.
h. Procedures for testing and inspecting.
i. Procedures for processing Applications for Payment.
j. Distribution of the Contract Documents.
k. Submittal procedures.
l. Preparation of record documents.
m. Work restrictions.
n. Working hours.
o. Owner's occupancy requirements.
p. Responsibility for temporary facilities and controls.
q. Procedures for moisture and mold control.
r. Procedures for disruptions and shutdowns.
s. Parking availability.
t. Office, work, and storage areas.
u. Equipment deliveries and priorities.
v. First aid.
w. Security.
x. Progress cleaning.
y. Refer to Section 070150.19 “Preparation for Reroofing” for additional items.

4. Minutes: General Contractor or Construction Manager is responsible for recording and distributing meeting minutes.

C. Progress Meetings: Conduct progress meetings at biweekly intervals.

1. Coordinate dates of meetings with preparation of payment requests.
2. Attendees: In addition to representatives of Owner and Architect, each Contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

    a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

        1) Review schedule for next period.

    b. Review present and future needs of each entity present, including the following:

        1) Interface requirements.
        2) Sequence of operations.
        3) Status of submittals.
        4) Deliveries.
        5) Off-site fabrication.
        6) Access.
        7) Site utilization.
        8) Temporary facilities and controls.
        9) Progress cleaning.
        10) Quality and work standards.
        11) Status of correction of deficient items.
        12) Field observations.
        13) Status of RFIs.
        14) Status of proposal requests.
        15) Pending changes.
        16) Status of Change Orders.
        17) Pending claims and disputes.
        18) Documentation of information for payment requests.

4. Minutes: General Contractor or Construction Manager is responsible for recording and distributing meeting minutes.

    a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:

1. Contractor's construction schedule.
2. Daily construction reports.
3. Material location reports.
4. Field condition reports.

B. Related Sections:

1. Section 013300 "Submittal Procedures" for submitting schedules and reports.
2. Section 014000 "Quality Requirements" for submitting a schedule of tests and inspections.

1.3 DEFINITIONS

A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.

1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
2. Predecessor Activity: An activity that precedes another activity in the network.
3. Successor Activity: An activity that follows another activity in the network.

B. Cost Loading: The allocation of the schedule of values for the completion of an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum, unless otherwise approved by Architect.

C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.

D. Event: The starting or ending point of an activity.

E. Float: The measure of leeway in starting and completing an activity.

1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.

3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

F. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.4 INFORMATIONAL SUBMITTALS

A. Format for Submittals: Submit required submittals in the following format:

1. PDF electronic file.

B. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.

1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.

C. Daily Construction Reports: Submit at weekly intervals.

D. Material Location Reports: Submit at weekly intervals.

E. Field Condition Reports: Submit at time of discovery of differing conditions.

1.5 QUALITY ASSURANCE

A. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to the Contractor's construction schedule, including, but not limited to, the following:

1. Review software limitations and content and format for reports.
2. Discuss constraints, including phasing, work stages and area separations.
3. Review delivery dates for Owner-furnished products.
4. Review schedule for work of Owner's separate contracts.
5. Review time required for review of submittals and resubmittals.
6. Review requirements for tests and inspections by independent testing and inspecting agencies.
7. Review time required for completion and startup procedures.
8. Review and finalize list of construction activities to be included in schedule.
9. Review submittal requirements and procedures.
10. Review procedures for updating schedule.

1.6 COORDINATION

A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.

B. Coordinate Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.

1. Secure time commitments for performing critical elements of the Work from entities involved.

2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Substantial Completion.

1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.

B. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:

1. Activity Duration: Define activities so no activity is longer than twenty (20) days, unless specifically allowed by Architect.
2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than sixty (60) days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
4. Substantial Completion: Indicate completion in advance of date established for Substantial Completion and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
5. Punch List and Final Completion: Include not more than thirty (30) days for punch list and final completion.

C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule and show how the sequence of the Work is affected.

1. Phasing: Arrange list of activities on schedule by phase.
2. Work Restrictions: Show the effect of the following items on the schedule:

a. Coordination with existing construction.
b. Uninterruptible services.
c. Use of premises restrictions.
d. Provisions for future construction.
e. Seasonal variations.
f. Environmental control.

3. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:

a. Subcontract awards.
b. Submittals.
c. Purchases.
d. Fabrication.
e. Sample testing.
f. Deliveries.
g. Installation.

h. Tests and inspections.
i. Adjusting.

4. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:

a. Substantial Completion.

D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion**.**

E. Cost Correlation: At the head of schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of the Work performed as of dates used for preparation of payment requests.

1. Refer to Section 012900 "Payment Procedures" for cost reporting and payment procedures.

F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:

1. Unresolved issues.
2. Unanswered RFIs.
3. Rejected or unreturned submittals.
4. Notations on returned submittals.

G. Recovery Schedule: When periodic update indicates the Work is fourteen (14) or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.

H. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's construction schedule within seven (7) days of date established for the Notice to Proceed.

B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.

1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in ten percent (10%) increments within time bar.

2.3 REPORTS

A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:

1. List of subcontractors at Project site.
2. List of separate contractors at Project site.

3. Approximate count of personnel at Project site.
4. Equipment at Project site.
5. Material deliveries.
6. High and low temperatures and general weather conditions, including presence of rain or snow.
7. Accidents.
8. Meetings and significant decisions.
9. Stoppages, delays, shortages, and losses.
10. Meter readings and similar recordings.
11. Emergency procedures.
12. Orders and requests of authorities having jurisdiction.
13. Change Orders received and implemented.
14. Construction Change Directives received and implemented.
15. Services connected and disconnected.
16. Equipment or system tests and startups.
17. Partial completions and occupancies.
18. Substantial Completions authorized.

B. Material Location Reports: At weekly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.

C. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one (1) week before each regularly scheduled progress meeting.

1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
3. As the Work progresses, indicate final completion percentage for each activity.

B. Distribution: Distribute copies of approved schedule to Architect, Construction Administrator, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.

1. Post copies in Project meeting rooms and temporary field offices.
2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200

SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for the following:

1. Periodic construction photographs.

B. Related Sections:

1. Section 013300 "Submittal Procedures" for submitting photographic documentation.
2. Section 017700 "Closeout Procedures" for submitting photographic documentation as project record documents at Project closeout.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA

A. Digital Images: Provide images in JPG format, produced by a digital camera with minimum sensor size of eight (8) megapixels, and at an image resolution of not less than 1600 by 1200 pixels and 400 dpi.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS

A. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.

1. Maintain key plan with each set of construction photographs that identifies each photographic location.

B. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.

1. Date and Time: Include date and time in file name for each image.
2. Field Office Images: Maintain one (1) set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to Architect.

C. Periodic Construction Photographs: Take eighteen to twenty (18-20) photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.

D. Additional Photographs: Architect may request photographs in addition to periodic photographs specified.

1. In emergency situations, take additional photographs within twenty-four (24) hours of request.
2. Circumstances that could require additional photographs include, but are not limited to, the following:

    a. Immediate follow-up when on-site events result in construction damage or losses.
    b. Substantial Completion of a major phase or component of the Work.

END OF SECTION 013233

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

B. Related Sections:

1. Section 012900 "Payment Procedures" for submitting Applications for Payment and the schedule of values.
2. Section 013200 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
3. Section 017823 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
4. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

1.3 DEFINITIONS

A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as action submittals.

B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as informational submittals.

C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.

D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS

A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the Architect and additional time for handling and reviewing submittals required by those corrections.

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
2. Submit concurrently with Contractor's construction schedule. Include submittals required during the first sixty (60) days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
3. Format: Arrange the following information in a tabular format:

    a. Scheduled date for first submittal.
    b. Specification Section number and title.
    c. Submittal Category: Action, informational.
    d. Name of subcontractor.
    e. Description of the Work covered.
    f. Scheduled date for Architect's final release or approval.
    g. Scheduled dates for purchasing.
    h. Scheduled dates for installation.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

A. Architect's Digital Data Files: Electronic copies of CAD Drawings of the Contract Drawings will **not** be provided by Architect for Contractor's use in preparing submittals unless requested and Architect's user agreement properly completed.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

    a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow seven (7) days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
2. Resubmittal Review: Allow five (5) days for review of each resubmittal.
3. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow seven (7) days for initial review of each submittal.

D. Identification and Information: Place a permanent label or title block on each paper copy submittal item for identification.

1. Indicate name of firm or entity that prepared each submittal on label or title block.
2. Provide a space on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
3. Include the following information for processing and recording action taken:

    a. Project name.
    b. Date.
    c. Name of Architect.
    d. Name of Contractor.
    e. Name of subcontractor.
    f. Name of supplier.
    g. Name of manufacturer.
    h. Submittal number or other unique identifier, including revision identifier.

        1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).

    i. Number and title of appropriate Specification Section.
    j. Drawing number and detail references, as appropriate.
    k. Location(s) where product is to be installed, as appropriate.
    l. Other necessary identification.

E. Identification and Information: Identify and incorporate information in each electronic submittal file as follows:

1. Assemble complete submittal package into a single indexed file with links enabling navigation to each item.
2. Name file with submittal number or other unique identifier, including revision identifier.

    a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).

3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
4. Include the following information on an inserted cover sheet:

    a. Project name.
    b. Date.
    c. Name and address of Architect.
    d. Name of Contractor.
    e. Name of firm or entity that prepared submittal.
    f. Name of subcontractor.
    g. Name of supplier.
    h. Name of manufacturer.
    i. Number and title of appropriate Specification Section.
    j. Drawing number and detail references, as appropriate.
    k. Location(s) where product is to be installed, as appropriate.
    l. Related physical samples submitted directly.
    m. Other necessary identification.

5. Include the following information as keywords in the electronic file metadata:

a. Project name.
b. Number and title of appropriate Specification Section.
c. Manufacturer name.
d. Product name.

F. Options: Identify options requiring selection by the Architect.

G. Deviations: Identify deviations from the Contract Documents on submittals.

H. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.

I. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review received from sources other than Contractor.

1. Transmittal Form: Provide locations on form for the following information:

a. Project name.
b. Date.
c. Destination (To:).
d. Source (From:).
e. Names of subcontractor, manufacturer, and supplier.
f. Category and type of submittal.
g. Submittal purpose and description.
h. Specification Section number and title.
i. Indication of full or partial submittal.
j. Drawing number and detail references, as appropriate.
k. Transmittal number**,** numbered consecutively.
l. Submittal and transmittal distribution record.
m. Remarks.
n. Signature of transmitter.

2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

J. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

1. Note date and content of previous submittal.
2. Note date and content of revision in label or title block and clearly indicate extent of revision.
3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.

K. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

L. Use for Construction: Use only final submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

1. Submit electronic submittals via email as PDF electronic files.

a. Architect will return annotated file. Annotate and retain one (1) copy of file as an electronic Project record document file.

2. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 017700 "Closeout Procedures."
3. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
b. Provide a notarized statement on original paper copy certificates and certifications where indicated.

4. Test and Inspection Reports Submittals: Comply with requirements specified in Section 014000 "Quality Requirements."

B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:

a. Manufacturer's catalog cuts.
b. Manufacturer's product specifications.
c. Standard color charts.
d. Statement of compliance with specified referenced standards.
e. Testing by recognized testing agency.
f. Application of testing agency labels and seals.
g. Notation of coordination requirements.
h. Availability and delivery time information.

4. Submit Product Data before or concurrent with Samples.

C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:

a. Identification of products.
b. Schedules.

c. Compliance with specified standards.
d. Notation of coordination requirements.
e. Notation of dimensions established by field measurement.
f. Relationship and attachment to adjoining construction clearly indicated.
g. Seal and signature of professional engineer if specified.

2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8½ by 11 inches but no larger than 30 by 42 inches.

D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.

1. Transmit Samples that contain multiple, related components such as accessories together in one (1) submittal package.
2. Identification: Attach label on unexposed side of Samples that includes the following:

a. Generic description of Sample.
b. Product name and name of manufacturer.
c. Sample source.
d. Number and title of applicable Specification Section.

3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

1. Type of product. Include unique identifier for each product indicated in the Contract Documents.
2. Manufacturer and product name, and model number if applicable.
3. Number and name of room or space.
4. Location within room or space.

F. Contractor's Construction Schedule: Comply with requirements specified in Section 013200 "Construction Progress Documentation."

G. Application for Payment: Comply with requirements specified in Section 012900 "Payment Procedures."

H. Schedule of Values: Comply with requirements specified in Section 012900 "Payment Procedures."

I. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design**.** Include the following information in tabular form:

1. Name, address, and telephone number of entity performing subcontract or supplying products.
2. Number and title of related Specification Section(s) covered by subcontract.
3. Drawing number and detail references, as appropriate, covered by subcontract.

J. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of Architects and Owners, and other information specified.

K. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on American Welding Society (AWS) forms. Include names of firms and personnel certified.

L. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.

M. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.

N. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

O. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.

P. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

Q. Product Test Reports: Submit written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

R. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:

1. Name of evaluation organization.
2. Date of evaluation.
3. Time period when report is in effect.
4. Product and manufacturers' names.
5. Description of product.
6. Test procedures and results.
7. Limitations of use.

S. Schedule of Tests and Inspections: Comply with requirements specified in Section 014000 "Quality Requirements."

T. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

U. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

V. Field Test Reports: Submit reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

W. Maintenance Data: Comply with requirements specified in Section 017823 "Operation and Maintenance Data."

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.

B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Section 017700 "Closeout Procedures."

C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.

B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.

C. Informational Submittals: Architect will review each submittal and will not return it or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.

D. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.

E. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.

F. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 013300

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1. Specific quality-assurance and -control requirements for individual work results are specified in their respective Specification Sections. Requirements in individual Sections may also cover production of standard products.
2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
3. Requirements for Contractor to provide quality-assurance and quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

C. Related Sections:

1. Divisions 02 through 49 Sections for specific test and inspection requirements.

1.3 DEFINITIONS

A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.

B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor’s quality-control services do not include contract enforcement activities performed by Architect.

C. Preconstruction Testing: Tests and inspections performed specifically for the Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.

D. Product Tests: Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.

E. Source Quality-Control Tests: Tests and inspections that are performed at the source; for example, plant, mill, factory, or shop.

F. Field Quality-Control Tests: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

H. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.

1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade or trades.

I. Experienced: When used with an entity or individual, "experienced" unless otherwise further described means having successfully completed a minimum of five (5) previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 CONFLICTING REQUIREMENTS

A. Conflicting Standards and Other Requirements: If compliance with two (2) or more standards or requirements are specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for direction before proceeding.

B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.5 INFORMATIONAL SUBMITTALS

A. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility submitted to authorities having jurisdiction before starting work on the following systems.

1. Seismic-force-resisting system, designated seismic system, or component listed in the Statement of Special Inspections.
2. Main wind-force-resisting system or a wind-resisting component listed in the Statement of Special Inspections.

B. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

C. Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1. Specification Section number and title.

2. Entity responsible for performing tests and inspections.
3. Description of test and inspection.
4. Identification of applicable standards.
5. Identification of test and inspection methods.
6. Number of tests and inspections required.
7. Time schedule or time span for tests and inspections.
8. Requirements for obtaining samples.
9. Unique characteristics of each quality-control service.

D. Reports: Prepare and submit certified written reports and documents as specified.

E. Permits, Licenses, and Certificates: For Owner's record, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents established for compliance with standards and regulations bearing on performance of the Work.

1.6 REPORTS AND DOCUMENTS

A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of technical representative making report.
2. Statement on condition of substrates and their acceptability for installation of product.
3. Statement that products at Project site comply with requirements.
4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
6. Statement whether conditions, products, and installation will affect warranty.
7. Other required items indicated in individual Specification Sections.

C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of factory-authorized service representative making report.
2. Statement that equipment complies with requirements.
3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
4. Statement whether conditions, products, and installation will affect warranty.
5. Other required items indicated in individual Specification Sections.

1.7 QUALITY ASSURANCE

A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.

B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.

C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

D. Installer Qualifications: A firm or individual experienced in installing, erecting, applying, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.

F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.

1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.

G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.

H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

1.8 QUALITY CONTROL

A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.

1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
3. Costs for testing that is cancelled will be charged to the Contractor, and the Contract Sum will be adjusted by Change Order.

B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify that the Work complies with requirements.

1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
2. Engage a qualified testing agency to perform these quality-control services.

    a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.

3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."

D. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.

E. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.

F. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.

2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
6. Do not perform any duties of Contractor.

G. Associated Contractor Services: Cooperate with agencies and representatives performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspection. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.
5. Delivery of samples to testing agencies.
6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
7. Security and protection for samples and for testing and inspecting equipment at Project site.

H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.9 SPECIAL TESTS AND INSPECTIONS

A. Special Tests and Inspections: Conducted by a qualified testing agency as required by authorities having jurisdiction, as indicated in individual Specification Sections, and as follows:

1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect, Contractor and to authorities having jurisdiction.
4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
6. Retesting and reinspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

A. Prepare a record of tests and inspections. Include the following:

1. Date test or inspection was conducted.
2. Description of the Work tested or inspected.
3. Date test or inspection results were transmitted to Architect.
4. Identification of testing agency or special inspector conducting test or inspection.

B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.

1. Submit log at Project closeout as part of Project Record Documents.

3.2 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

SECTION 014200 - REFERENCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 DEFINITIONS

A. General: Basic Contract definitions are included in the Conditions of the Contract.

B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.

C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."

D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."

E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.

F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.

G. "Install": Unload, temporarily store, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, and similar operations at Project site.

H. "Provide": Furnish and install, complete and ready for the intended use.

I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.3 INDUSTRY STANDARDS

A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.

1. For standards referenced by applicable building codes, comply with dates of standards as listed in building codes.

C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.4 ABBREVIATIONS AND ACRONYMS

A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale's "Encyclopedia of Associations: National Organizations of the U.S." or in Columbia Books' "National Trade & Professional Associations of the United States."

1. AABC - Associated Air Balance Council; www.aabc.com.
2. AAMA - American Architectural Manufacturers Association; www.aamanet.org.
3. AAPFCO - Association of American Plant Food Control Officials; www.aapfco.org.
4. AASHTO - American Association of State Highway and Transportation Officials; www.transportation.org.
5. AATCC - American Association of Textile Chemists and Colorists; www.aatcc.org.
6. ABMA - American Bearing Manufacturers Association; www.americanbearings.org.
7. ABMA - American Boiler Manufacturers Association; www.abma.com.
8. ACI - American Concrete Institute; (Formerly: ACI International); www.concrete.org.
9. ACPA - American Concrete Pipe Association; www.concrete-pipe.org.
10. AEIC - Association of Edison Illuminating Companies, Inc. (The); www.aeic.org.
11. AF&PA - American Forest & Paper Association; www.afandpa.org.
12. AGA - American Gas Association; www.aga.org.
13. AHAM - Association of Home Appliance Manufacturers; www.aham.org.
14. AHRI - Air-Conditioning, Heating, and Refrigeration Institute (The); www.ahrinet.org.
15. AI - Asphalt Institute; www.asphaltinstitute.org.
16. AIA - American Institute of Architects (The); www.aia.org.
17. AISC - American Institute of Steel Construction; www.aisc.org.
18. AISI - American Iron and Steel Institute; www.steel.org.
19. AITC - American Institute of Timber Construction; www.aitc-glulam.org.
20. AMCA - Air Movement and Control Association International, Inc.; www.amca.org.
21. ANSI - American National Standards Institute; www.ansi.org.
22. AOSA - Association of Official Seed Analysts, Inc.; www.aosaseed.com.
23. APA - APA - The Engineered Wood Association; www.apawood.org.
24. APA - Architectural Precast Association; www.archprecast.org.
25. API - American Petroleum Institute; www.api.org.
26. ARI - Air-Conditioning & Refrigeration Institute; (See AHRI).
27. ARI - American Refrigeration Institute; (See AHRI).
28. ARMA - Asphalt Roofing Manufacturers Association; www.asphaltroofing.org.
29. ASCE - American Society of Civil Engineers; www.asce.org.
30. ASCE/SEI - American Society of Civil Engineers/Structural Engineering Institute; (See ASCE).
31. ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning Engineers; www.ashrae.org.
32. ASME - ASME International; (American Society of Mechanical Engineers); www.asme.org.
33. ASSE - American Society of Sanitary Engineering; www.asse-plumbing.org.
34. ASSP - American Society of Safety Professionals (The); www.assp.org.
35. ASTM - ASTM International; www.astm.org.
36. ATIS - Alliance for Telecommunications Industry Solutions; www.atis.org.
37. AVIXA - Audiovisual and Integrated Experience Association; (Formerly: Infocomm International); www.soundandcommunications.com.

38. AWEA - American Wind Energy Association; www.awea.org.
39. AWI - Architectural Woodwork Institute; www.awinet.org.
40. AWMAC - Architectural Woodwork Manufacturers Association of Canada; www.awmac.com.
41. AWPA - American Wood Protection Association; www.awpa.com.
42. AWS - American Welding Society; www.aws.org.
43. AWWA - American Water Works Association; www.awwa.org.
44. BHMA - Builders Hardware Manufacturers Association; www.buildershardware.com.
45. BIA - Brick Industry Association (The); www.gobrick.com.
46. BICSI - BICSI, Inc.; www.bicsi.org.
47. BIFMA - BIFMA International; (Business and Institutional Furniture Manufacturer's Association); www.bifma.org.
48. BISSC - Baking Industry Sanitation Standards Committee; www.bissc.org.
49. BWF - Badminton World Federation; (Formerly: International Badminton Federation); www.bissc.org.
50. CDA - Copper Development Association; www.copper.org.
51. CE - Conformite Europeenne; www.ec.europa.eu/growth/single-market/ce-marking.
52. CEA - Canadian Electricity Association; www.electricity.ca.
53. CFFA - Chemical Fabrics and Film Association, Inc.; www.chemicalfabricsandfilm.com.
54. CFSEI - Cold-Formed Steel Engineers Institute; www.cfsei.org.
55. CGA - Compressed Gas Association; www.cganet.com.
56. CIMA - Cellulose Insulation Manufacturers Association; www.cellulose.org.
57. CISCA - Ceilings & Interior Systems Construction Association; www.cisca.org.
58. CISPI - Cast Iron Soil Pipe Institute; www.cispi.org.
59. CLFMI - Chain Link Fence Manufacturers Institute; www.chainlinkinfo.org.
60. CPA - Composite Panel Association; www.compositepanel.org.
61. CRI - Carpet and Rug Institute (The); www.carpet-rug.org.
62. CRRC - Cool Roof Rating Council; www.coolroofs.org.
63. CRSI - Concrete Reinforcing Steel Institute; www.crsi.org.
64. CSA - CSA Group; www.csa-group.org.
65. CSI - Construction Specifications Institute (The); www.csiresources.org.
66. CSSB - Cedar Shake & Shingle Bureau; www.cedarbureau.org.
67. CTA - Consumer Technology Association; www.cta.tech.
68. CTI - Cooling Technology Institute; (Formerly: Cooling Tower Institute); www.coolingtechnology.org.
69. CWC - Composite Wood Council; (See CPA).
70. DASMA - Door and Access Systems Manufacturers Association; www.dasma.com.
71. DHA - Decorative Hardwoods Association; (Formerly: Hardwood Plywood & Veneer Association); www.decorativehardwoods.org.
72. DHI - Door and Hardware Institute; www.dhi.org.
73. ECA - Electronic Components Association; (See ECIA).
74. ECAMA - Electronic Components Assemblies & Materials Association; (See ECIA).
75. ECIA - Electronic Components Industry Association; www.ecianow.org.
76. EIA - Electronic Industries Alliance; (See TIA).
77. EIMA - EIFS Industry Members Association; www.eima.com.
78. EJMA - Expansion Joint Manufacturers Association, Inc.; www.ejma.org.
79. EOS/ESD Association; (Electrostatic Discharge Association); www.esda.org.
80. ESTA - Entertainment Services and Technology Association; (See PLASA).
81. ETL - Intertek (See Intertek); www.intertek.com.
82. EVO - Efficiency Valuation Organization; www.evo-world.org.
83. FCI - Fluid Controls Institute; www.fluidcontrolsinstitute.org.
84. FIBA - Federation Internationale de Basketball; (The International Basketball Federation); www.fiba.com.
85. FIVB - Federation Internationale de Volleyball; (The International Volleyball Federation); www.fivb.org.
86. FM Approvals - FM Approvals LLC; www.fmglobal.com.

87. FM Global - FM Global; (Formerly: FMG - FM Global); www.fmglobal.com.
88. FRSA - Florida Roofing, Sheet Metal Contractors Association, Inc.; www.floridaroof.com.
89. FSA - Fluid Sealing Association; www.fluidsealing.com.
90. FSC - Forest Stewardship Council U.S.; www.fscus.org.
91. GA - Gypsum Association; www.gypsum.org.
92. GANA - Glass Association of North America; (See NGA).
93. GS - Green Seal; www.greenseal.org.
94. HI - Hydraulic Institute; www.pumps.org.
95. HI/GAMA - Hydronics Institute/Gas Appliance Manufacturers Association; (See AHRI).
96. HMMA - Hollow Metal Manufacturers Association; (See NAAMM).
97. HPVA - Hardwood Plywood & Veneer Association; (See DHA).
98. HPW - H. P. White Laboratory, Inc.; www.hpwhite.com.
99. IAPSC - International Association of Professional Security Consultants; www.iapsc.org.
100. IAS - International Accreditation Service; www.iasonline.org.
101. ICBO - International Conference of Building Officials; (See ICC).
102. ICC - International Code Council; www.iccsafe.org.
103. ICEA - Insulated Cable Engineers Association, Inc.; www.icea.net.
104. ICPA - International Cast Polymer Association; www.theicpa.com.
105. ICRI - International Concrete Repair Institute, Inc.; www.icri.org.
106. IEC - International Electrotechnical Commission; www.iec.ch.
107. IEEE - Institute of Electrical and Electronics Engineers, Inc. (The); www.ieee.org.
108. IES - Illuminating Engineering Society; (Formerly: Illuminating Engineering Society of North America); www.ies.org.
109. IESNA - Illuminating Engineering Society of North America; (See IES).
110. IEST - Institute of Environmental Sciences and Technology; www.iest.org.
111. IGMA - Insulating Glass Manufacturers Alliance; www.igmaonline.org.
112. IGSHPA - International Ground Source Heat Pump Association; www.igshpa.org.
113. II - Infocomm International; (See AVIXA).
114. ILI - Indiana Limestone Institute of America, Inc.; www.iliai.com.
115. Intertek - Intertek Group; (Formerly: ETL SEMCO; Intertek Testing Service NA); www.intertek.com.
116. ISA - International Society of Automation (The); (Formerly: Instrumentation, Systems, and Automation Society); www.isa.org.
117. ISAS - Instrumentation, Systems, and Automation Society (The); (See ISA).
118. ISFA - International Surface Fabricators Association; (Formerly: International Solid Surface Fabricators Association); www.isfanow.org.
119. ISO - International Organization for Standardization; www.iso.org.
120. ISSFA - International Solid Surface Fabricators Association; (See ISFA).
121. ITU - International Telecommunication Union; www.itu.int.
122. KCMA - Kitchen Cabinet Manufacturers Association; www.kcma.org.
123. LMA - Laminating Materials Association; (See CPA).
124. LPI - Lightning Protection Institute; www.lightning.org.
125. MBMA - Metal Building Manufacturers Association; www.mbma.com.
126. MCA - Metal Construction Association; www.metalconstruction.org.
127. MFMA - Maple Flooring Manufacturers Association, Inc.; www.maplefloor.org.
128. MFMA - Metal Framing Manufacturers Association, Inc.; www.metalframingmfg.org.
129. MHI - Material Handling Industry of America; www.mhia.org.
130. MIA - Marble Institute of America; (See NSI).
131. MMPA - Moulding & Millwork Producers Association; www.wmmpa.com.
132. MPI - Master Painters Institute; www.paintinfo.com.
133. MSS - Manufacturers Standardization Society of The Valve and Fittings Industry Inc.; www.mss-hq.org.
134. NAAMM - National Association of Architectural Metal Manufacturers; www.naamm.org.
135. NACE - NACE International; (National Association of Corrosion Engineers International); www.nace.org.
136. NADCA - National Air Duct Cleaners Association; www.nadca.com.

137. NAIMA - North American Insulation Manufacturers Association; www.naima.org.
138. NALP - National Association of Landscape Professionals; www.landscapeprofessionals.org.
139. NBGQA - National Building Granite Quarries Association, Inc.; www.nbgqa.com.
140. NBI - New Buildings Institute; www.newbuildings.org.
141. NCAA - National Collegiate Athletic Association (The); www.ncaa.org.
142. NCMA - National Concrete Masonry Association; www.ncma.org.
143. NEBB - National Environmental Balancing Bureau; www.nebb.org.
144. NECA - National Electrical Contractors Association; www.necanet.org.
145. NeLMA - Northeastern Lumber Manufacturers Association; www.nelma.org.
146. NEMA - National Electrical Manufacturers Association; www.nema.org.
147. NETA - InterNational Electrical Testing Association; www.netaworld.org.
148. NFHS - National Federation of State High School Associations; www.nfhs.org.
149. NFPA - National Fire Protection Association; www.nfpa.org.
150. NFPA - NFPA International; (See NFPA).
151. NFRC - National Fenestration Rating Council; www.nfrc.org.
152. NGA - National Glass Association (The); (Formerly: Glass Association of North America); www.glass.org.
153. NHLA - National Hardwood Lumber Association; www.nhla.com.
154. NLGA - National Lumber Grades Authority; www.nlga.org.
155. NOFMA - National Oak Flooring Manufacturers Association; (See NWFA).
156. NOMMA - National Ornamental & Miscellaneous Metals Association; www.nomma.org.
157. NRCA - National Roofing Contractors Association; www.nrca.net.
158. NRMCA - National Ready Mixed Concrete Association; www.nrmca.org.
159. NSF - NSF International; www.nsf.org.
160. NSI - National Stone Institute; (Formerly: Marble Institute of America); www.naturalstoneinstitute.org.
161. NSPE - National Society of Professional Engineers; www.nspe.org.
162. NSSGA - National Stone, Sand & Gravel Association; www.nssga.org.
163. NTMA - National Terrazzo & Mosaic Association, Inc. (The); www.ntma.com.
164. NWFA - National Wood Flooring Association; www.nwfa.org.
165. NWRA - National Waste & Recycling Association; www.wasterecycling.org
166. PCI - Precast/Prestressed Concrete Institute; www.pci.org.
167. PDI - Plumbing & Drainage Institute; www.pdionline.org.
168. PLASA - PLASA; (Formerly: ESTA - Entertainment Services and Technology Association); www.plasa.org.
169. RCSC - Research Council on Structural Connections; www.boltcouncil.org.
170. RFCI - Resilient Floor Covering Institute; www.rfci.com.
171. RIS - Redwood Inspection Service; www.redwoodinspection.com.
172. SAE - SAE International; www.sae.org.
173. SCTE - Society of Cable Telecommunications Engineers; www.scte.org.
174. SDI - Steel Deck Institute; www.sdi.org.
175. SDI - Steel Door Institute; www.steeldoor.org.
176. SEFA - Scientific Equipment and Furniture Association (The); www.sefalabs.com.
177. SEI/ASCE - Structural Engineering Institute/American Society of Civil Engineers; (See ASCE).
178. SIA - Security Industry Association; www.siaonline.org.
179. SJI - Steel Joist Institute; www.steeljoist.org.
180. SMA - Screen Manufacturers Association; www.smainfo.org.
181. SMACNA - Sheet Metal and Air Conditioning Contractors' National Association; www.smacna.org.
182. SMPTE - Society of Motion Picture and Television Engineers; www.smpte.org.
183. SPFA - Spray Polyurethane Foam Alliance; www.sprayfoam.org.
184. SPIB - Southern Pine Inspection Bureau; www.spib.org.
185. SPRI - Single Ply Roofing Industry; www.spri.org.
186. SRCC - Solar Rating & Certification Corporation; www.solar-rating.org.

187. SSINA - Specialty Steel Industry of North America; www.ssina.com.
188. SSPC - SSPC: The Society for Protective Coatings; www.sspc.org.
189. STI - Steel Tank Institute; www.steeltank.com.
190. SWI - Steel Window Institute; www.steelwindows.com.
191. SWPA - Submersible Wastewater Pump Association; www.swpa.org.
192. TCA - Tilt-Up Concrete Association; www.tilt-up.org.
193. TCNA - Tile Council of North America, Inc.; www.tileusa.com.
194. TEMA - Tubular Exchanger Manufacturers Association, Inc.; www.tema.org.
195. TIA - Telecommunications Industry Association (The); (Formerly: TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance); www.tiaonline.org.
196. TIA/EIA - Telecommunications Industry Association/Electronic Industries Alliance; (See TIA).
197. TMS - The Masonry Society; www.masonrysociety.org.
198. TPI - Truss Plate Institute; www.tpinst.org.
199. TPI - Turfgrass Producers International; www.turfgrasssod.org.
200. TRI - Tile Roofing Institute; www.tileroofing.org.
201. UL - Underwriters Laboratories Inc.; www.ul.com.
202. UNI - Uni-Bell PVC Pipe Association; www.uni-bell.org.
203. USAV - USA Volleyball; www.usavolleyball.org.
204. USGBC - U.S. Green Building Council; www.usgbc.org.
205. USITT - United States Institute for Theatre Technology, Inc.; www.usitt.org.
206. WA - Wallcoverings Association; www.wallcoverings.org.
207. WCLIB - West Coast Lumber Inspection Bureau; www.wclib.org.
208. WCMA - Window Covering Manufacturers Association; www.wcmanet.org.
209. WDMA - Window & Door Manufacturers Association; www.wdma.com.
210. WI - Woodwork Institute; www.wicnet.org.
211. WSRCA - Western States Roofing Contractors Association; www.wsrca.com.
212. WWPA - Western Wood Products Association; http://www.wwpa.org.

B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is believed to be accurate as of the date of the Contract Documents.

1. IAPMO - International Association of Plumbing and Mechanical Officials; www.iapmo.org.
2. ICC - International Code Council; www.iccsafe.org.
3. ICC-ES - ICC Evaluation Service, LLC; www.icc-es.org.

C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Information is subject to change and is up to date as of the date of the Contract Documents.

1. COE - Army Corps of Engineers; www.usace.army.mil.
2. CPSC - Consumer Product Safety Commission; www.cpsc.gov.
3. DOC - Department of Commerce; National Institute of Standards and Technology; www.nist.gov.
4. DOD - Department of Defense; www.quicksearch.dla.mil.
5. DOE - Department of Energy; www.energy.gov.
6. EPA - Environmental Protection Agency; www.epa.gov.
7. FAA - Federal Aviation Administration; www.faa.gov.
8. FG - Federal Government Publications; www.gpo.gov/fdsys.
9. GSA - General Services Administration; www.gsa.gov.
10. HUD - Department of Housing and Urban Development; www.hud.gov.
11. LBL - Lawrence Berkeley National Laboratory; Environmental Energy Technologies Division; www.eetd.lbl.gov.

12. OSHA - Occupational Safety & Health Administration; www.osha.gov.
13. SD - Department of State; www.state.gov.
14. TRB - Transportation Research Board; National Cooperative Highway Research Program; The National Academies; www.trb.org.
15. USDA - Department of Agriculture; Agriculture Research Service; U.S. Salinity Laboratory; www.ars.usda.gov.
16. USDA - Department of Agriculture; Rural Utilities Service; www.usda.gov.
17. USDOJ - Department of Justice; Office of Justice Programs; National Institute of Justice; www.ojp.usdoj.gov.
18. USP - U.S. Pharmacopeial Convention; www.usp.org.
19. USPS - United States Postal Service; www.usps.com.

D. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.

1. CFR - Code of Federal Regulations; Available from Government Printing Office; www.govinfo.gov.
2. DOD - Department of Defense; Military Specifications and Standards; Available from DLA Document Services; www.quicksearch.dla.mil.
3. DSCC - Defense Supply Center Columbus; (See FS).
4. FED-STD - Federal Standard; (See FS).
5. FS - Federal Specification; Available from DLA Document Services; www.quicksearch.dla.mil.

    a. Available from Defense Standardization Program; www.dsp.dla.mil.
    b. Available from General Services Administration; www.gsa.gov.
    c. Available from National Institute of Building Sciences/Whole Building Design Guide; www.wbdg.org.

6. MILSPEC - Military Specification and Standards; (See DOD).
7. USAB - United States Access Board; www.access-board.gov.
8. USATBCB - U.S. Architectural & Transportation Barriers Compliance Board; (See USAB).

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014200

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements for temporary support, security, and protection facilities.

B. Related Requirements:

1. Section 011000 "Summary of Work" for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Architect, testing agencies, and authorities having jurisdiction.

B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

1.4 INFORMATIONAL SUBMITTALS

A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

B. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.

1.5 QUALITY ASSURANCE

A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

PART 2 - PRODUCTS

2.1 TEMPORARY FACILITIES

A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading, if required. Unit must be large enough

for regular job meetings, plan review areas, submittal storage and other job file and administrative functions.

B. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.

1. Sheds to be metal box storage units or have wood floors raised above the ground.
2. Store combustible materials apart from building.

2.2 EQUIPMENT

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.

B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

A. General: Install temporary service or connect to existing service.

1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

B. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.

C. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

D. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.

E. Electronic Communication Service: Regardless of availability of Owner’s service, the Contractor shall maintain at his expense secure and reliable WiFi wireless connection to internet with provisions for access by Architect, the Owner’s staff, Municipal Officials or Inspectors, and all subcontractors.

3.3 SUPPORT FACILITIES INSTALLATION

A. General: Comply with the following:

1. Provide construction for temporary sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.
2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

B. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

C. Parking: Provide temporary parking areas for construction personnel.

D. Storage and Staging: Use designated areas of Project site for storage and staging needs.

E. Project Signs: Provide Project signs as required by Owner. Unauthorized signs are not permitted.

1. Identification Signs: Provide Project identification signs.
2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.

    a. Provide temporary, directional signs for construction personnel and visitors.

3. Maintain and touch up signs so they are legible at all times.

F. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."

G. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

C. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

D. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.

E. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.

3.5 OPERATION, TERMINATION, AND REMOVAL

A. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.

B. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

B. Related Sections:

1. Section 012500 "Substitution Procedures" for requests for substitutions.
2. Section 014200 "References" for applicable industry standards for products specified.

1.3 DEFINITIONS

A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.4 ACTION SUBMITTALS

A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.

2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one (1) week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within seven (7) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.

    a. Form of Approval: As specified in Section 013300 "Submittal Procedures."
    b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.

B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two (2) or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

B. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
5. Protect stored products from damage and liquids from freezing.
6. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
3. Refer to Divisions 02 through 49. Sections for specific content requirements and particular requirements for submitting special warranties.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures:

1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
3. Products:

a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one (1) of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered, unless otherwise indicated.
b. Non-Restricted List: Where Specifications include a list of names of both available manufacturers and products, provide one (1) of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.

4. Manufacturers:

a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one (1) of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered, unless otherwise indicated.
b. Non-Restricted List: Where Specifications include a list of available manufacturers, provide a product by one (1) of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.

5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one (1) of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one (1) of the other named manufacturers.

C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.

1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.

D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:

1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
2. Detailed, SIDE-BY-SIDE comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as

performance, weight, size, durability, visual effect, and specific features and requirements indicated.

3. Evidence that proposed product provides specified warranty.
4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

1. Installation of the Work.
2. Cutting and patching.
3. Progress cleaning.
4. Starting and adjusting.
5. Protection of installed construction.
6. Correction of the Work.

B. Related Sections:

1. Section 013300 "Submittal Procedures" for submitting surveys.

1.3 DEFINITIONS

A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.

B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.4 INFORMATIONAL SUBMITTALS

A. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

1.5 QUALITY ASSURANCE

A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.

1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from the Architect before proceeding. Shore, brace, and support structural element during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.
2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.

3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Comply with requirements specified in other Sections.

B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to the Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:

    a. Description of the Work.
    b. List of detrimental conditions, including substrates.
    c. List of unacceptable installation tolerances.
    d. Recommended corrections.

2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of the Contractor, submit a request for information to Architect according to requirements in Section 013100 "Project Management and Coordination."

3.3 INSTALLATION

A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb and make horizontal work level.
2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.

F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
2. Allow for building movement, including thermal expansion and contraction.

H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.4 CUTTING AND PATCHING

A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Temporary Support: Provide temporary support of work to be cut.

C. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

D. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching.

E. Existing Utility Services: Where existing services are required to be removed, relocated, or abandoned, bypass such systems before cutting to minimize interruption to occupied areas.

F. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
4. Proceed with patching after construction operations requiring cutting are complete.

G. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.

    a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    b. Restore damaged pipe covering to its original condition.

3. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
4. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

H. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.5 PROGRESS CLEANING

A. General: Clean Project site and work areas daily at the end of each workday, including common areas. Empty or remove dumpsters at the end of each work week. Enforce requirements strictly. Dispose of materials lawfully.

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
2. Do not hold waste materials more than seven (7) days during normal weather or three (3) days if the temperature is expected to rise above 80 deg F (27 deg C).
3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

    a. Utilize containers intended for holding waste materials of type to be stored.

4. Coordinate progress cleaning for joint-use areas where more than one installer has worked.

B. Site: Maintain Project site free of waste materials and debris.

C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.

1. Remove liquid spills promptly.
2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.

D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 015000 "Temporary Facilities and Controls."

H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.6 STARTING AND ADJUSTING

A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.

B. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.

C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

D. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements."

3.7 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.8 CORRECTION OF THE WORK

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.

1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

B. Restore permanent facilities used during construction to their specified condition.

C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

1. Substantial Completion procedures.
2. Final completion procedures.
3. Warranties.

B. Related Sections:

1. Section 017300 "Execution" for progress cleaning of Project site.
2. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
3. Section 017839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
4. Divisions 02 through 49 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.3 SUBSTANTIAL COMPLETION

A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete with request.

1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
2. Advise Owner of pending insurance changeover requirements.
3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
5. Prepare and submit Project Record Documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, and similar final record information.
6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
7. Complete startup testing of systems.
8. Submit test/adjust/balance records.
9. Terminate and remove temporary facilities from Project site, along with construction tools and similar elements.
10. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
11. Complete final cleaning requirements, including touchup painting.

12. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for final completion.

1.4 FINAL COMPLETION

A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:

1. Submit a final Application for Payment according to Section 012900 "Payment Procedures."
2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
5. Secure and provide both temporary and final Certificate of Occupancy from the Building Official, meeting all local and state permit closeout requirements.

B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

C. CT DOE OSCG&R Closeout Assistance:

1. The Contractor shall assist the Architect and Owner with the Office of School Construction Grants and Review closeout and any audit of the project by providing supplemental cost or scope information related to their work or change orders that were executed during the course of the project. This assistance may require administrative support from the Contractor’s office but may also require in-person attendance at meetings with the Owner, and any information requested by the Owner must be provided within five (5) calendar days of the request.
2. This closeout service shall be provided at no additional expense to the project and may be required as much as twenty-four (24) months after the final date of substantial completion of the project.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use **CSI Form 14.1A** or comparable form.

1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
3. Include the following information at the top of each page:

    a. Project name.
    b. Date.
    c. Name of Architect.
    d. Name of Contractor.
    e. Page number.

4. Submit list of incomplete items in the following format:

    a. PDF electronic file. Architect will return annotated file.

1.6 WARRANTIES

A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

B. Partial Occupancy: Submit properly executed warranties within fifteen (15) days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.

C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.

1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8½-by-11-inch paper.
2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
4. Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide table of contents at beginning of document.

D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION (Not Used)

END OF SECTION 017700

SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:

1. Operation and maintenance documentation directory.
2. Emergency manuals.
3. Systems and equipment operation manuals.
4. Systems and equipment maintenance manuals.
5. Product maintenance manuals.

B. Related Sections:

1. Section 013300 "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
2. Divisions 02 through 49 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.3 DEFINITIONS

A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.

B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 CLOSEOUT SUBMITTALS

A. Manual Content: Operations and maintenance manual content is specified in individual specification sections, and as reviewed and approved at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.

1. Architect will comment on whether content of operation and maintenance submittals is acceptable.
2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.

B. Format: Submit operations and maintenance manuals in the following format:

1. Two (2) thumb drives. Enable review comments on draft submittals.
2. Two (2) paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves. Architect will return both copies to be given to the Owner.

C. Initial Manual Submittal: Submit draft copy of each manual at least thirty (30) days before commencing demonstration and training. Architect will comment on whether general scope and content of manual are acceptable.

D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least fifteen (15) days before commencing demonstration and training. Architect will return copy with comments.

1. Correct or modify each manual to comply with Architect's comments. Submit copies of each corrected manual within fifteen (15) days of receipt of Architect's comments and prior to commencing demonstration and training.

E. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

1.5 FORMAT OF OPERATION AND MAINTENANCE MANUALS

A. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.

1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
2. File Names and Bookmarks: Bookmark individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.

B. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.

1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8½-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.

a. If two (2) or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, subject matter of contents, and indicate Specification Section number on bottom of spine. Indicate volume number for multiple-volume sets.

2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment. Enclose title pages and directories in clear plastic sleeves.
4. Supplementary Text: Prepared on 8½-by-11-inch white bond paper.

5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.

    a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
    b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

1.6 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

A. Organization of Manuals: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:

1. Title page.
2. Table of contents.
3. Manual contents.

B. Title Page: Include the following information:

1. Subject matter included in manual.
2. Name and address of Project.
3. Name and address of Owner.
4. Date of submittal.
5. Name and contact information for Contractor.
6. Name and contact information for Architect.
7. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
8. Cross-reference to related systems in other operation and maintenance manuals.

C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.

1. If operation or maintenance documentation requires more than one (1) volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.

D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one (1) system into a single binder.

1.7 EMERGENCY MANUALS

A. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.

B. Content: Organize manual into a separate section for each of the following:

1. Type of emergency.
2. Emergency instructions.
3. Emergency procedures.

C. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:

1. Fire.
2. Flood.
3. Gas leak.
4. Water leak.
5. Power failure.
6. Water outage.
7. System, subsystem, or equipment failure.
8. Chemical release or spill.

D. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.

E. Emergency Procedures: Include the following, as applicable:

1. Instructions on stopping.
2. Shutdown instructions for each type of emergency.
3. Operating instructions for conditions outside normal operating limits.
4. Required sequences for electric or electronic systems.
5. Special operating instructions and procedures.

1.8 SYSTEMS AND EQUIPMENT OPERATION MANUALS

A. Systems and Equipment Operation Manual: Assemble a complete set of data indicating operation of each system, subsystem, and piece of equipment not part of a system. Include information required for daily operation and management, operating standards, and routine and special operating procedures.

1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.

B. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:

1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
2. Performance and design criteria if Contractor is delegated design responsibility.
3. Operating standards.
4. Operating procedures.
5. Operating logs.
6. Wiring diagrams.
7. Control diagrams.
8. Piped system diagrams.
9. Precautions against improper use.
10. License requirements including inspection and renewal dates.

C. Descriptions: Include the following:

1. Product name and model number. Use designations for products indicated on Contract Documents.

2. Manufacturer's name.
3. Equipment identification with serial number of each component.
4. Equipment function.
5. Operating characteristics.
6. Limiting conditions.
7. Performance curves.
8. Engineering data and tests.
9. Complete nomenclature and number of replacement parts.

D. Operating Procedures: Include the following, as applicable:

1. Startup procedures.
2. Equipment or system break-in procedures.
3. Routine and normal operating instructions.
4. Regulation and control procedures.
5. Instructions on stopping.
6. Normal shutdown instructions.
7. Seasonal and weekend operating instructions.
8. Required sequences for electric or electronic systems.
9. Special operating instructions and procedures.

E. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.

F. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

1.9 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

A. Systems and Equipment Maintenance Manuals: Assemble a complete set of data indicating maintenance of each system, subsystem, and piece of equipment not part of a system. Include manufacturers' maintenance documentation, preventive maintenance procedures and frequency, repair procedures, wiring and systems diagrams, lists of spare parts, and warranty information.

1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
2. Prepare a separate manual for each system and subsystem, in the form of an instructional

B. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.

C. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

D. Manufacturers' Maintenance Documentation: Include the following information for each component part or piece of equipment:

1. Standard maintenance instructions and bulletins; include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one (1) item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.

    a. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.

2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
3. Identification and nomenclature of parts and components.
4. List of items recommended to be stocked as spare parts.

E. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:

1. Test and inspection instructions.
2. Troubleshooting guide.
3. Precautions against improper maintenance.
4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
5. Aligning, adjusting, and checking instructions.

F. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.

1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.

G. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.

H. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.

I. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

1. Include procedures to follow and required notifications for warranty claims.

J. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.

1. Do not use original project record documents as part of maintenance manuals.

1.10 PRODUCT MAINTENANCE MANUALS

A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.

B. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.

C. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

D. Product Information: Include the following, as applicable:

1. Product name and model number.
2. Manufacturer's name.
3. Color, pattern, and texture.
4. Material and chemical composition.
5. Reordering information for specially manufactured products.

E. Maintenance Procedures: Include manufacturer's written recommendations and the following:

1. Inspection procedures.
2. Types of cleaning agents to be used and methods of cleaning.
3. List of cleaning agents and methods of cleaning detrimental to product.
4. Schedule for routine cleaning and maintenance.
5. Repair instructions.

F. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.

G. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

1. Include procedures to follow and required notifications for warranty claims.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017823

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for project record documents, including the following:

1. Record Drawings.
2. Record Specifications.
3. Record Product Data.
4. Miscellaneous record submittals.

B. Related Sections:

1. Section 017700 "Closeout Procedures" for general closeout procedures.
2. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
3. Divisions 02 through 49 Sections for specific requirements for project record documents of the Work in those Sections.

1.3 CLOSEOUT SUBMITTALS

A. Record Drawings: Comply with the following:

1. Number of Copies: Submit one (1) set(s) of marked-up record prints.

B. Record Specifications: Submit one (1) paper copy of Project's Specifications, including addenda and contract modifications.

C. Record Product Data: Submit one (1) paper copy of each submittal.

1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

A. Record Prints: Maintain one (1) set of marked-up paper copies of the Contract Drawings and Shop Drawings.

1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.

a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
b. Accurately record information in an acceptable drawing technique.
c. Record data as soon as possible after obtaining it.
d. Record and check the markup before enclosing concealed installations.
e. Cross-reference record prints to corresponding archive photographic documentation.

2. Content: Types of items requiring marking include, but are not limited to, the following:

a. Dimensional changes to Drawings.
b. Revisions to details shown on Drawings.
c. Revisions to routing of piping and conduits.
d. Revisions to electrical circuitry.
e. Actual equipment locations.
f. Locations of concealed internal utilities.
g. Changes made by Change Order or Construction Change Directive.
h. Changes made following Architect's written orders.
i. Details not on the original Contract Drawings.
j. Field records for variable and concealed conditions.
k. Record information on the Work that is shown only schematically.

3. Mark the Contract Drawings and Shop Drawings completely and accurately. Utilize personnel proficient at recording graphic information in production of marked-up record prints.
4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
5. Mark important additional information that was either shown schematically or omitted from original Drawings.
6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

B. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.

1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
2. Format: Paper copy.
3. Identification: As follows:

a. Project name.
b. Date.
c. Designation "PROJECT RECORD DRAWINGS."
d. Name of Architect.
e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.

2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
5. Note related Change Orders, record Product Data, and record Drawings where applicable.

B. Format: Submit record Specifications as paper copy.

2.3 RECORD PRODUCT DATA

A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
3. Note related Change Orders, record Specifications, and record Drawings where applicable.

B. Format: Submit record Product Data as paper copy.

1. Include record Product Data directory organized by specification section number and title, electronically linked to each item of record Product Data.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

A. Recording: Maintain one (1) copy of each submittal during the construction period for project record document purposes. Post changes and modifications to project record documents as they occur; do not wait until the end of Project.

B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

END OF SECTION 017839

SECTION 020750 SELECTIVE DEMOLITION - ASBESTOS REMOVAL

PART 1 – GENERAL

RELATED DOCUMENTS

The Contractor, Subcontractors, and/or suppliers providing goods and services referenced in or related to this Section shall also be bound by the Related Documents identified in Division 01 Section "Summary."

1.1 SUMMARY

A. Provide selective demolition as necessary to access caulking, tars, flashing materials and all other ACMs, where applicable.

B. **All layers of Parapet Wall Original Caulking & Flashing Tar and Original Unit/Chimney Flashing Material & Flashing Tar are included in the base work; no extra charge will be accepted.** Selective demolition or moving of typically non-movable objects by the Contractor may be required to gain access to all ACMs to be removed.

1.2 PROJECT CONDITIONS

A. Occupancy:

1. Areas of the building in which selective demolition may occur will be unoccupied during work. **All work will be performed only during a period when there are no children (< 18 years of age) present in any parts of the building.**

B. Existing Conditions:

1. After the project has begun, the Contractor is responsible for the condition of the structures to be selectively demolished.

2. Unforeseen Conditions: Should unforeseen conditions be encountered that affect design or function of project, investigate and fully submit an accurate, detailed, written report to the office of the Owner. While awaiting a response, reschedule operations if necessary to avoid delay of the overall project.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that necessary utilities have been disconnected and sealed, where applicable.

B. As practicable, arrange operations to reveal unknown or concealed conditions for examination and verification before removal or demolition.

C. Verify actual conditions to determine, in advance, whether removal or demolition of any element will result in structural deficiency, overloading, failure, or unplanned collapse.

1. A licensed electrical contractor shall disconnect electrical fixtures as necessary to facilitate removal of asbestos-containing materials.
2. A licensed plumbing contractor shall disconnect plumbing fixtures as necessary to facilitate removal of asbestos-containing materials.

3.2 PREPARATION

A. Traffic:

1. Do not obstruct walks or public ways without the written permission of governing authorities and of the Owner. Where routes are permitted to be closed, provide alternate routes, if required.

B. Protection:

1. Provide for the protection of authorized persons passing around or through the area of demolition.
2. Perform demolition so as to prevent damage to adjacent improvements and facilities to remain.
3. Protect walls, floors, and other new or existing work from damage during demolition operations, where applicable.

3.3 POLLUTION CONTROLS

A. Control as much as practicable the spread of dust and dirt.

B. Observe environmental regulations.

C. Do not allow water usage that may result in freezing or flooding.

D. Do not allow adjacent improvements to remain to become soiled by demolition operations.

3.4 DEMOLITION - GENERAL

Not Applicable.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

A. Promptly dispose of materials resulting from demolition operations. Non-contaminated material shall be disposed of as construction waste by the Contractor. Do not allow materials to accumulate on site.

B. All rubbish and waste material from the Work shall be neatly stacked or kept in suitable containers and removed from the premises daily. The premises shall be kept clean and in an orderly condition at all times to the satisfaction of the Owner and the Consultant.

C. Transport materials resulting from demolition operations and legally dispose of off-site.

D. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials (where applicable) and promptly dispose of off-site.

3.6 CLEANING

A. Throughout the construction period, the Contractor shall maintain the building and site free of rubbish, debris, surplus materials, and other items not required for the Work. Remove such material from the site daily to prevent accumulations. Remove all construction debris from work areas, and remove all hazardous waste and asbestos waste, as required, by the most current federal, state, and local regulations and the requirements of the specifications.

END OF SECTION

SECTION 020800 ASBESTOS REMOVAL

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. The Contractor, Subcontractors, and/or suppliers providing goods and services referenced in or related to this Section shall also be bound by the Related Documents identified in Division 01 Section "Summary."

B. Refer to other Sections of these Specifications to determine the type and extent of work therein affecting the work of this Section, whether or not such work is specifically mentioned herein.

C. Facility Support Services, LLC. (FSS's) "Limited Asbestos Inspection Report – Roof Replacement" (June 2023) for the B.W. Tinker Elementary School.

1.2 SCOPE OF WORK

A. Work outlined in this section includes all that is necessary for the complete removal and disposal of asbestos-containing and asbestos-contaminated materials identified in the areas as detailed below for the B.W Tinker Elementary School; Waterbury, CT.
The quantities given on the following pages are provided to establish the order of magnitude of the abatement project. Actual quantities may vary. The Contractor is responsible for verification of all quantities of ACM scheduled for removal. This verification shall include an on-site walk-through inspection of the work area.

B. Coordinate this section with other Sections of these Specifications for actual quantities of work required. Location, estimated quantities, and abatement removal plan of specific items noted in paragraph A above include:

TABLE 1: LIST OF ACMs

MATERIAL	LOCATION	ESTIMATED QUANTITY
Parapet Wall Original Drip Edge Caulking (White/Tan)	Roof "A,B,C,D,E" Portion	~ 480 Linear Feet
Parapet Wall Original Flashing Tar	Roof "A,B,C,D,E" Portion	~ 480 Linear Feet
Original Unit/Chimney Flashing Material and Tar	Roof "A,B,C,D,E" Portion	~ 225 Square Feet

1.3 DEFINITIONS

The following definitions relative to asbestos removal:

1. ABATEMENT - Procedures to control fiber releases from asbestos containing materials; includes removal, encapsulation, and enclosure.

2. AIR MONITORING - The process of measuring the airborne fiber concentration within an area or within a person's breathing zone.

3. AMENDED WATER - Water to which a surfactant has been added.

4. ASBESTOS - The name given to a number of naturally occurring fibrous silicates. This includes the serpentine forms and the amphiboles and includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite, or any of these forms, which have been chemically altered.

5. ASBESTOS PROJECT MONITOR (APM) - A professional capable of conducting air monitoring and analysis of samples for airborne fiber concentrations. This individual should be an industrial hygienist, an environmental scientist, or an engineer with experience in asbestos air monitoring and worker protection equipment and procedures. This individual should have demonstrated proficiency in conducting air sample collection in accordance with 29 CFR 1910.1001 and 29 CFR 1926.1101.

6. ASBESTOS WORK AREA - A regulated area as defined by OSHA 29 CFR 1926.1101 where asbestos removal operations are performed which is isolated by physical barriers to prevent the spread of asbestos dust, fibers, or debris. The regulated area shall comply with requirements of regulated area for demarcation, access, respirators, prohibited activities, competent persons and exposure assessments and monitoring.

7. ASBESTOS FELT - A product made by saturating felted asbestos with asphalt or other suitable binder, such as a synthetic elastomer.

8. ASBESTOS FIBERS - Those asbestos particles with a length greater than five (5) microns and a length to diameter ratio of 3:1 or greater.

9. ASPHALT SHINGLES, COMPOSITION SHINGLES OR STRIP SLATES - (Pitched Roof Shingle): a roofing material manufactured by saturating a dry felt with asphalt then coating the saturated felt with a harder asphalt mixed with a fine mineral, glass fiber, asbestos or organic stabilizer. All or part of the weather side may be covered with mineral granules, or with powdered talc or mica.

10. BASE FLASHING (ROOF) - The flashing provided by upturned edges of a watertight membrane on a roof. May contain metal and associated waterproofing material or combination of roofing felts and waterproofing at the joint between a roofing surface and a vertical surface such as a wall or parapet. Also base flashing may be present at perimeter of completely flat roofing.

11. BUILT-UP ROOFING - Composition Roofing, Felt and Gravel Roofing, Gravel Roofing) - a continuous roof covering made up of laminations or plies of saturated or coated roofing felts, alternated with layers of asphalt or coal-tar pitch and surfaced with gravel, paint or finish coat.

12. CATEGORY I NON-FRIABLE MATERIAL – Asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products.

13. CATEGORY II NON-FRIABLE MATERIAL – Any non-friable ACM not designated as Category I.

14. CAULKING - Resilient mastic compound often having a silicone bituminous or rubber base. Used to seal cracks, fill joints and prevent leakage. Typical applications: around windows and doors, at joints between two dissimilar materials. (i.e. masonry to wood, masonry to steel etc.).

15. CLEAN ROOM - An uncontaminated area or room, which is a part of the worker decontamination enclosure with provisions for storage of workers' street clothes and protective equipment.

16. CLEARANCE SAMPLING - Final air sampling performed aggressively after the completion of the removal project in a regulated area. Clearance sampling can be conducted by either of the following two methods:

    (A) Air samples collected by the air sampling professional having a fiber concentration of less than 0.01 fibers/cc of air in each of five (5) samples collected inside the containment will denote acceptable clearance sampling by Phase Contrast Microscopy (PCM).

    (B) Five air samples collected inside the containment by the air sampling professional having an average asbestos concentration of less than 70 structures per square millimeter of air will denote acceptable clearance sampling for Transmission Electron Microscopy (TEM).

17. COMPETENT PERSON - As defined by 29 CFR 1926.1101, a representative of the Abatement Contractor who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure. In addition has authority to take prompt corrective measures to eliminate such hazards during asbestos removal. Competent person shall be properly trained in accordance with Environmental Protection Agency's (EPA) Model Accreditation Plan.

18. CURTAINED DOORWAY - A device to allow ingress and egress from one area to another while permitting minimal air movement between the areas. Two curtained doorways spaced a minimum of six feet apart can form an airlock.

19. DAMP PROOFING - Application of a water impervious material to surface such as wall to prevent penetration of moisture, typically at foundation or below grade surface.

20. DECONTAMINATION ENCLOSURE SYSTEM - A series of connected areas, with curtained doorways between any two adjacent areas, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock and is adjacent and connected to the regulated area, where possible.

21. ENCAPSULANT - A liquid material which can be applied to asbestos-containing materials which controls the possible release of asbestos fibers from the materials either by creating a membrane over the surface (bridging encapsulant) or penetrating the material and binding its components together (penetrating encapsulant).

22. EQUIPMENT ROOM - Any contaminated area or a room that is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.

23. FIXED OBJECT - Unit of equipment or furniture in the work areas that cannot be removed from the work area.

24. FRIABLE ASBESTOS MATERIALS - Any material that contains more than 1% asbestos by weight, that can be crumbled, pulverized or reduced to powder by hand pressure.

25. GLAZING COMPOUND - any compound used to hold window glass in place, also referred to as putty, or glaziers' putty. Is not field-applied, usually installed during manufacture of windows.

26. GLOVE BAG - A manufactured polyethylene bag type of enclosure with built-in gloves such as is placed with an airtight seal around asbestos-containing material and which permits the asbestos-containing materials contained by the bag to be removed without releasing asbestos fibers to the atmosphere. The use of glove bag is permitted for removal and repair of small amount (less than 3 linear feet/3 square feet) of ACM.

27. HEPA FILTER - High Efficiency Particulate Air (HEPA) filter in compliance with ANSI Z9.2-1979.

28. HEPA VACUUM EQUIPMENT - Vacuum equipment equipped with a HEPA filter system for filtering the effluent air from the unit.

29. MOVABLE OBJECT - Unit of equipment or furniture in the work area that can be removed from the work area.

30. NEGATIVE AIR PRESSURE EQUIPMENT - A portable local exhaust ventilation system equipped with HEPA filtration used to create negative pressure in a regulated area (negative with respect to adjacent unregulated areas) and capable of maintaining a constant, low velocity air flow into regulated areas from adjacent unregulated areas.

31. NESHAPS - National Emissions Standard for Hazardous Air Pollutants regulations enforced by the EPA.

32. PENETRATION ROOF FLASHING - Flashing are used to waterproof pipes, supports, cables, and all roof protrusions.

33. PERMISSIBLE EXPOSURE LEVEL (PEL) - The average airborne concentration of asbestos fibers to which an employee is allowed to be exposed over an eight-hour period. The PEL established by OSHA 29 CFR 1926.1101 is 0.1 fibers per cubic centimeter of air averaged over an eight-hour time period. An airborne fiber concentration of 1.0 fibers /cc averaged over a sampling period of 30 minutes is the Excursion Limit. The Contractor is responsible for maintaining work areas in a manner that this standard is not exceeded.

.

34. PROJECT MONITOR - A professional capable of conducting air monitoring and analysis of schemes. This individual should be an industrial hygienist, an environmental scientist, or an engineer with experience in asbestos air monitoring and worker protection equipment and procedures. This individual should have demonstrated proficiency in conducting air sample collection in accordance with OSHA Title 29 CFR, Parts 1910.1001 and 1926.1101

35. REGULATED ASBESTOS-CONTAINING MATERIAL (RACM) – Is a friable ACM, or a Category I non-friable ACM that has become friable or will be or has been subjected to sanding, grinding, cutting or abrading, or Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by force expected to act on the material during demolition or renovation operations.

36. REGULATED AREA - An area established by the employer to demarcate where Class I, II, and III asbestos work is conducted and any adjoining area where debris and waste from such asbestos work accumulate, and a work area within which airborne concentrations of asbestos fibers may exceed the PEL.

37. SHOWER ROOM - A room between the clean room and the equipment room in the work decontamination enclosure with hot and cold running water and suitably arranged for employee showering during decontamination. The shower room is located in an airlock between the contaminated area and the clean area.

38. WATERPROOFING - material, usually a membrane or applied compound (tar/mastic), used to make a surface impervious to water. Includes concealed conditions (applications around doors, windows, and in wall cavities), sometimes combined with felts.

1.4 SUBMITTALS

A. The Contractor shall submit the following to the Owner prior to start of project:

1. Submit a schedule to the Architect and the Consultant that defines a timetable for executing and completing the project, including work area preparations, removal, cleanup, decontamination, and final clearance air monitoring (if applicable).
2. Submit the current valid CTDPH Asbestos Abatement Contractor license (if materials become RACM during removal) and certificate of insurance.
3. Submit the identity of the hauling contractor and location of the landfill to be used. Also, submit current valid operating permits and certificates of insurance for the transporter and landfill.
4. Submit the plans and construction details for the construction of the decontamination systems and the isolation of the work areas as may be necessary for compliance with this specification and applicable regulations.
5. Submit the training, medical, and respirator fit test records of each employee who may be on the project site.
6. Submit the qualifications of the air sampling professional that the Contractor proposed to use for this project to perform OSHA-required employee exposure monitoring.
7. Submit detailed product information on all materials and equipment proposed for asbestos abatement work on this project.
8. Submit pertinent information regarding the qualifications of the Project Supervisor (competent person) for this project as well as a list of past projects completed.
9. Submit a chain-of-command for the project.
10. Submit a site-specific Emergency Action Plan for the project.
11. Submit a written site-specific Respiratory Protection Program for employees for the Work, including make, model and National Institute of Occupational Safety and Health (NIOSH) approval numbers of respirators to be used at the Site (if applicable).
12. No work on the Site will be allowed to begin until the Architect and the Consultant as listed herein approve the Pre-Construction Submittals. Any delay caused by the Contractor's refusal or inability to submit this documentation in a timely manner does not constitute a cause for change order or a time extension;

B. The following shall be submitted to the Owner at the completion of work:

1. Completed Punch List.
2. Contractor Logs
3. Completed copies of Waste Shipment Records (WSR).

1.5 REGULATIONS AND STANDARDS

A. The Contractor shall be solely responsible for conducting this project and supervising all work in a manner which will be in conformance with all federal, state, and local regulations and guidelines pertaining to asbestos removal. Specifically, the Contractor shall comply with the requirements of the following:

1. EPA National Emissions Standards for Hazardous Air Pollutants (NESHAPS) Regulations (Title 40 CFR, Part 61, Subpart M);
2. EPA Asbestos Hazard Emergency Response Act (AHERA) Regulations (Title 40 CFR, Part 763, Subpart E)
3. OSHA Asbestos Regulations (Title 29 CFR, Parts 1910.1001 and 1926.1101);
4. Connecticut Department of Energy and Environmental Protection (DEEP) Regulations (Section 22a 209 8(i) and Section 22a 220 of the Connecticut General Statutes);
5. CTDPH Asbestos Containing Materials in Schools (Sections 19a 333-1 to 19a 333-13);
6. CTDPH Standards for Asbestos Abatement (Sections 19a-332a- 1 to 19a-332a-16);
7. CTDPH Licensing and Training Requirements for Persons Engaged in Asbestos Abatement and Asbestos Consultant Services (Sections 20-440-1 to 20-440-9 and Section 20-441);
8. United States Department of Transportation (DOT) Hazardous Materials Regulations (Title 49 CFR, Parts 171 – 180)
9. 2003 International Building Code as adopted by the 2005 State of Connecticut Building Code including the 2009, 2011, and 2013 amendments;
10. Life Safety Code (National Fire Protection Association [NFPA]);
11. Local health and safety codes, ordinances or regulations pertaining to asbestos remediation and all national codes and standards including ASTM, ANSI, and Underwriter's Laboratories.

1.6 EXEMPTIONS

A. Any deviations from these Specifications require the written approval and authorization from the Owner and Consultant.

B. Any deviation in work practices identified in CTDPH Standards for Asbestos Abatement, Sections 19a-332a-1 to 19a-332a-23, Sections 19a-333-1 through 19a-333-13, Sections 20-440-1 to 20-440-9, Section 20-441, and Section 19a-332e-1 to 19a-332e-2, must be requested in writing and approved in writing by the CTDPH.

1.7 FINAL VISUAL INSPECTION

A. Following the completion of the final cleaning phase of the work in the regulated area, the Consultant shall conduct a final visual inspection of the area. The Contractor shall be responsible for meeting final visual criteria, which is the absence of visible debris, as specified in CTDPH regulation 19a-332a-12(b).

1.8 NOTIFICATIONS, POSTINGS, SUBMITTALS, AND PERMITS

A. The Contractor shall make the following notifications and provide submittals to the following agencies prior to the commencement of removal/renovation work. These notifications are required prior to the start of the abatement/demolition project:

1. State of Connecticut
   Department of Public Health
   Indoor Air Program
   410 Capitol Avenue
   P.O. Box 340308
   Hartford, CT 06134-0308

2. United States Environmental Protection Agency
   Region 1 – New England
   5 Post Office Square, Suite 100
   Boston, MA 02109-3912

1.9 WORK SITE SAFETY PLAN

A. The Contractor shall establish a set of emergency procedures and shall post them in a conspicuous place at the work site. The safety plan should include provisions for the following:

1. Evacuation of injured workers.
2. Emergency and fire exit routes from all work areas.
3. Emergency first aid treatment.
4. Local telephone numbers for emergency services including ambulance, fire, and police.
5. Methods to notify appropriate personnel in the event of a fire or other emergency requiring evacuation of the site or area.
6. Site safety plan for fall protection.

B. The Contractor is responsible for training all workers in these procedures.

1.10 CONTROL OVER REMOVAL WORK (ASBESTOS ABATEMENT MONITORING)

A. This Section describes independent air sampling work being performed on behalf of the Owner. This work is not in the Contract Sum. This Section describes air monitoring conducted by the Consultant to verify that the outside environment remains uncontaminated. (Personal air monitoring required by OSHA is work shall be performed by the Contractor and is within the Contract Sum.)

B. The purpose of the Consultant's air monitoring is to document engineering controls utilizing during asbestos abatement are functioning properly. Air monitoring will focus on possible:
1. Contamination of the building outside of the work area by airborne asbestos fibers
2. Contamination of air outside the building envelope by airborne asbestos fibers.

C. If either of the above be determined to have occurred based on Consultant's air monitoring, then the Contractor shall immediately cease all asbestos abatement activities until the fault is corrected. Do not resume work until authorized by the Owner's Consultant. To determine if the elevated airborne fiber concentrations encountered during abatement operations have been reduced to an acceptable level below 0.010 fibers per cubic centimeter (f/cc), the Consultant will collect and analyze air samples in accordance with re-occupancy clearance air sampling requirements.

D. The Owner's Consultant may monitor total airborne fiber concentrations in the Work Area. The purpose of this air monitoring will be to detect total airborne fiber concentrations, which may challenge the ability of the work area isolation procedures to protect the balance of the building or the building exterior from possible contamination by airborne fibers.

E. To determine if the elevated airborne fiber counts encountered during abatement operations have been reduced to an acceptable level, the Consultant will collect and analyze air samples in accordance with clearance air sampling requirements.

F. The Owner's Consultant may perform on-site monitoring throughout the course of the project, as follows:
1. All work procedures shall be continuously monitored by the Consultant to assure that areas outside the designated work locations in the building will not be contaminated.
2. Prior to work on any given day, the Contractor's designated "Competent Person" shall discuss the day's work schedule with the Consultant to evaluate job tasks with respect to safety procedures and requirements specified to prevent building contamination or the employees. This includes a work area visual inspection and the building decontamination or the employees. This includes a work area visual inspection and the decontamination systems.

1.11 PROPER WORKER PROTECTION

A. This section describes the equipment and procedures required for protecting workers against asbestos contamination and other workplace hazards except for respiratory protection.

A. All workers are to be accredited and certified as Asbestos Abatement Workers as required by the CTDPH.

B. The Contractor is required to be certified, accredited, and licensed as required by the CTDPH.

D. In accordance with 29 CFR 1926.1101, all workers shall receive a training course covering the dangers inherent in handling asbestos, the dangers of breathing asbestos dust, proper work procedures, and proper worker protective measures. This course must include but is not limited to the following:

1. Methods of recognizing asbestos.
2. Health effects associated with asbestos.
3. Relationship between smoking and asbestos in producing lung cancer.
4. Nature of operations that could result in exposure to asbestos.
5. Importance of and instruction in the use of necessary protective controls, practices and procedures to minimize exposure including:
   a. Engineering controls
   b. Work practices
   c. Respirators
   d. Housekeeping procedures
   e. Hygiene facilities
   f. Protective clothing
   g. Decontamination procedures
   h. Emergency procedures
   i. Waste disposal procedures
6. Purpose, proper use, fitting, instructions, and limitations of respirators as required by 29 CFR 1910.134.

7. Appropriate work practices for the work.
8. Requirements of medical surveillance program.
9. Review of 29 CFR 1926.
10. Pressure differential systems.
11. Work practices including hands on or on-job training.
12. Personal Decontamination procedures.
13. Air monitoring, personal and area.

E. The Contractor shall provide medical examinations for all workers who may encounter an airborne fiber level of 0.1 f/cc or greater for an eight-hour Time Weighted Average (TWA). In the absence of specific airborne fiber data, provide medical examinations for all workers who will enter the work area for any reason. Examination shall at a minimum meet OSHA requirements as set forth in 29 CFR 1926.1101. In addition, provide an evaluation of the individual's ability to work in environments capable of producing heat stress in the worker.

F. Submit the following to the Owner for review. The Contractor shall not start work until the Owner/Consultant reviews the submittals and indicates that they are acceptable.

1. Certificates from an EPA-approved AHERA Abatement Workers course for each worker as evidence that each Asbestos Abatement Worker is accredited as required by the AHERA Regulation 40 CFR 763 Appendix C to Subpart E, April 30, 1987.
2. Evidence that the Contractor is certified to perform asbestos abatement work by the State of Connecticut Department of Public Health.
3. An original signed copy of the Certificate of Worker's Acknowledgment found at the end of this section, for each worker who is to be at the job site or enter the Work Area.
4. Documents verifying that each worker has had a medical examination within the last 12 months as part of compliance with OSHA medical surveillance requirements. Submit, at a minimum, for each worker the following:
    a. Name and Social Security Number.
    b. Physicians Written Opinion from examining physician including at a minimum the following:
        1) Whether worker has any detected medical conditions that would place the worker at an increased risk of material health impairment from exposure to asbestos.
        2) Any recommended limitations on the worker or on the use of personal protective equipment such as respirators.
        3) Statement that the worker has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.
5. Information that was provided to physician in compliance with 29 CFR 1926.1101.
6. A statement that the worker is able to wear and use the type of respiratory protection proposed for the project and is able to work safely in an environment capable of producing heat/cold stress in the worker.

1.12 CONTRACTOR'S AIR SAMPLING RESPONSIBILITY

A. The Contractor shall be responsible for monitoring airborne asbestos fiber concentrations in the workers' breathing zones and to establish conditions and work procedures for maintaining compliance with OSHA Regulations 29 CFR 1910.1001, and 1926.1101.

B. The Contractor's air sampling procedures shall ensure proper documentation of all personal air-sampling results. Documentation for personal sampling must be available at the job site for review by federal and/or state regulatory agencies.

C. All air sampling shall be conducted in accordance with methods described in OSHA Standards 29 CFR 1910.1001 and 1926.1101. The flow rate for air samples will not be less than 0.5 liters/minute and must not exceed 2.5 liters/minute.

1.13 RESTRICTIONS ON CONTRACTOR'S USE OF GROUNDS

A. The Contractor shall confine his/her operations to the actual work site, access routes and storage areas designated by the Owner. The Contractor may place a storage container at a place designated by the Owner.

B. The Contractor shall have sole responsibility for providing all materials, equipment, or tools and any storage required shall be at the Contractor's own risk. The Owner will not assume responsibility for any loss of materials, equipment, or tools stored on its property.

PART 2 - PRODUCTS

2.1 MATERIALS

A. A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description.

C. Damaged or deteriorating materials shall not be used and shall be removed from the Site. Material that becomes contaminated with asbestos shall be decontaminated or disposed as asbestos waste.

C. Polyethylene (poly) in a roll size to minimize the frequency of joints shall be delivered to the Site with a factory label indicating 4 or 6–mil thickness.

D. Poly disposable bags shall be 6-mil thickness with pertinent pre-printed label. Tie wraps for bags shall be plastic, five-inches long (minimum), pointed and looped to secure filled plastic bags.

E. Tape or spray-adhesive will be capable of sealing joints in adjacent poly sheets and for attachment of poly to dissimilar finished or unfinished surfaces and capable of adhering under both dry and wet conditions, including amended water.

F. Surfactant (wetting agent) shall consist of 50 percent polyoxyethylene ether and 50 percent polyoxyethylene ester, or equivalent, and shall be mixed with water to provide a concentration of one ounce surfactant to five-gallons of water or as directed by manufacturer.

G. Removal encapsulant shall be non-flammable factory prepared penetrating chemical encapsulant deemed acceptable to Consultant. Usage shall be in accordance with manufacturer’s printed technical data.

H. The Contractor shall have available spray equipment capable of mixing wetting agent with water and capable of generating sufficient pressure and volume and having sufficient hose length to reach all areas with asbestos.

I. Impermeable containers are to be used to receive and retain asbestos-containing or contaminated materials until disposal at an acceptable disposal site. The containers shall be labeled in accordance with OSHA Title 29 CFR, Part 1926.1101. Containers must be both air and watertight.

J. OSHA-required asbestos labels, warning signs and/or warning tape shall be used.

K. Encapsulant shall be bridging or penetrating type that has been deemed acceptable to the Consultant. Usage shall be in accordance with manufacturer's printed technical data.

2.2 TOOLS AND EQUIPMENT

A. The Contractor shall provide all tools and equipment necessary for asbestos removal, encapsulation and enclosure.

B. The Contractor’s air monitoring professional shall have air-monitoring equipment of type and quantity to monitor operations and conduct personnel exposure surveillance per OSHA requirements.

C. The Contractor shall have available sufficient inventory or dated purchase orders for materials necessary for the job including protective clothing, respirators, filter cartridges, poly sheeting of proper size and thickness, tape and air filters.

D. The Contractor shall provide (as needed) temporary electrical power panels, electrical power cables, and electrical power sources (such as generators). Any electrical connection work affecting the building electrical power system shall be performed by a State of Connecticut-licensed electrician.

E. The Contractor shall have available shower stalls and plumbing to support same to include sufficient hose length and drain system, or an acceptable alternate.

F. Vacuum units, of suitable size and capacities for the project, shall have HEPA filter(s) capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micrometers in diameter or larger.

2.3 ELECTRICAL

A. Any electrical installations shall be accomplished under the direction of a Licensed Electrician.

B. The Contractor shall furnish and install a portable ground fault circuit interrupters (GFCI) including the following:

1. All circuits individually GFCI-protected.
2. Components UL listed

C. The Contractor shall may use existing electrical outlets within the regulated area:

D. The Contractor will supply temporary lighting for all asbestos removal work areas, where applicable.

E. The Owner will furnish electrical power for the project.

PART 3 - EXECUTION

3.1 WORKER PROTECTION

A. General:

1. All asbestos abatement removal shall be performed in accordance with 29 CFR 1910.1001, 29 CFR 1926.1101 and State of Connecticut regulations as specified herein. Personnel shall wear and utilize protective clothing and equipment as specified herein. Eating, smoking, drinking, chewing gum, or applying cosmetics shall not be permitted in the asbestos control area. Personnel of other trades not engaged in the removal of asbestos shall not be allowed in the work area unless all the personnel protection provisions of this Specification are complied with by the trade personnel.

2. Engineering controls shall be used to minimize airborne fiber concentrations within the work area. A combination of personal protective equipment and work practices shall also be used to further reduce employee exposure to asbestos fibers.

3. The Contractor shall provide all authorized visitors with protective clothing, as in the procedures described herein and afford them the use of all facilities to keep them free of contamination from asbestos fibers.

4. The Contractor shall provide the decontamination facility for worker and equipment decontamination as well as the results of the personal air monitoring.

B. Respiratory Protection:

1. The Contractor shall select and provide at no cost to his/her employees respirators, which shall provide adequate protection to the employee as specified by Section 1910.1001(g) Table D-1 and Section 1926.1101(h) Table D-4.

2. Respiratory protection shall be worn by all persons potentially exposed to elevated airborne concentrations of asbestos fibers from the initiation of the asbestos removal project until all areas have been given clearance.

3. At a minimum, the Contractor shall provide half-face air-purifying respirators to all workers at the job site. If it is established, through collection and analysis of personal air samples in accordance with the OSHA Reference Method (ORM) (See U.S. Department of Labor; Occupational Safety and Health Administration; Occupational Exposure to Asbestos; Title 29 CFR 1910.1001, "General Industry Standard." Title 29 CFR 1926.1101, "Construction Standard") that this respiratory protection is inadequate, the Contractor will provide Powered Air Purifying Respirators or Type C (continuous flow or pressure demand) supplied air respirators.

   a. Once the exposure limits have been established, the respirators presented in 29 CFR 1910.1001 that afford adequate protection at such upper concentrations of airborne asbestos fibers shall be used.
   b. The minimum personal sampling period shall be seven hours at a flow rate of 0.5 to 2.5 liters per minute. The samples shall be collected within the workers' breathing zone. Personal sampling shall be the responsibility of the Contractor. Personal sampling results shall be available on site no later than 24 hours after sampling.
   c. The filters provided for both the cartridge respirators and the PAPR's shall be National Institute for Occupational Safety and Health (NIOSH) approved for asbestos fibers.

C. Protective Clothing:

1. The Contractor shall provide to all workers, foreman and superintendents, protective disposable clothing consisting of full body coveralls including head covers.

2. The Contractor shall provide eye protection and hard hats, as required, by job conditions and safety regulations.

3. Reusable footwear, hard hats and eye protection devices shall be left in the "contaminated equipment room" until the end of the asbestos removal work.

4. Upon completion of asbestos removal work, the footwear shall be disposed of as contaminated waste or cleaned thoroughly inside and out using soap and water before removing from work area or from equipment and access area.

5. All disposable protective clothing shall be discarded and disposed of as asbestos waste when the wearer exits from the workspace to the outside through the decontamination facilities.

6. The color of the disposable clothing worn outside the work area shall be a different color than the disposable clothing worn inside the work area.

D. Decontamination Procedures:

1. Each worker and authorized visitor without exception shall, upon entering the job site: remove street clothes in the clean change room and put on an appropriate respirator with new filters, and clean disposable protective clothing before entering the equipment room or the work area, except those workers intending to re-wear previously worn protective clothing stored in the equipment room shall enter the equipment room wearing only respirators.

2. Each time he/she leaves the work area, each worker and authorized visitor shall:

   a. Vacuum gross contamination from clothing before leaving the work area.

   b. Proceed to the equipment room and remove all clothing except respirator.

   c. Still wearing the respirator, proceed unclothed into the showers.

   d. Clean the outside of the respirator with soap and water while showering.

   e. Remove filters and wet them and dispose of filters in the container provided for that purpose.

   f. Wash and rinse the inside of the respirator. After showering, dry off with disposable towels.

3. Following showering and drying off, each worker and authorized visitor shall proceed directly to the clean change room and dress in street clothes at the end of the day's work, or before eating, smoking, or drinking.

4. Contaminated reusable work footwear shall be stored in the equipment room when not in use in the work area. Upon completion of asbestos removal work, footwear shall be disposed of as contaminated waste or cleaned inside and out using soap and water before removing these items from the work area or from the equipment and

access area. Contaminated protective clothing shall be placed in receptacles for disposal with other asbestos-contaminated materials.

3.2 WORK AREA PREPARATION

A. Where necessary deactivate electrical power. Provide GFCI devices, temporary power, and temporary lighting installed in compliance with the applicable electrical codes. All installations are to be made by a State of Connecticut-licensed electrician.

B. Deactivate and/or isolate heating, ventilating and air conditioning (HVAC) air systems or zones to prevent contamination and fiber dispersal within the structure. During the work, rooftop vents around the work area shall be completely sealed with duct tape and two layers of 6-mil thick poly.

C. Completely seal all openings, including, but not limited to, roof level HVAC air intake sources, windows adjacent to removal (within ten feet) skylights, ducts, grills, diffusers, and any other penetration of the work areas, with poly a minimum of 6-mils thick, sealed with duct tape.

3.3 DECONTAMINATION SYSTEM

A. The Contractor shall establish on-site, a remote decontamination enclosure consisting of equipment room, shower room, and clean room in series.

B. Access between rooms in the decontamination system shall be through double flap-curtained openings. The clean room, shower and equipment rooms within the decontamination enclosure shall be completely sealed.

C. Construct the decontamination system with plastic, wood, or metal framing and cover both sides with a double layer of 6-mil poly, sealed with spray glue or tape at the joints.

D. The Contractor and the Consultant shall visually inspect barriers routinely to assure effective seal and the Contractor shall repair defects immediately.

3.4 MAINTENANCE OF THE WORK AREA

A. Acceptance of Asbestos Control Area: The Contractor shall not begin removal unless approved by the APM. The control area must be constructed, the decontamination facility prepared and the supplies to be used assembled, barriers properly constructed, openings sealed, and other preparations made to allow the removal operation to proceed. If conditions are not acceptable, the Contractor shall correct deficiencies to comply with the specifications.

3.5 ASBESTOS REMOVAL PROCEDURE – GENERAL

A. Following a federal court of appeals decision, OSHA has issued a final rule on June 29, 1998, removing regulation of asbestos-containing asphalt roof cements, mastics and coatings from the OSHA standards for occupational exposure to asbestos in construction and shipyard work. However, friable materials (felts, papers, etc.) are still regulated by OSHA, federal (no visible emissions) and state entities.

B. Exterior non-friable materials which are not RACM as defined by the EPA and CTDPH are not required to be removed by a CTDPH-licensed Asbestos Abatement Contractor in the State of Connecticut. This is true as long as the proposed methods of removal will not render the Category I non-friable roofing materials RACM during proposed roof removal operations.

C. Supervisors and workers are not required to be certified in the State of Connecticut unless the Category I non-friable roofing materials become RACM. Workers must be properly trained in compliance with OSHA regulations.

D. The Contractor shall have a designated "competent person" on the job at all times to ensure proper work practices throughout the project.

E. The Contractor shall regulate the work area as required for compliance with OSHA regulation Title 29 CFR, Part 1926.1101 to prohibit non-trained workers from entering areas where ACM are to be removed.

F. The Contractor shall establish worker decontamination unit remote from the work area.

G. The Contractor shall spray asbestos materials with amended water using airless spray equipment or apply approved removal wetting agent to ensure no visible emissions during removal of Category I non-friable roofing materials.

H. The adequately-wet asbestos must be removed in manageable sections. Material drop shall not exceed eight feet. For heights up to 15 feet above ground surface, provide inclined chutes or scaffolding to intercept drop. For heights exceeding 15 feet, the Contractor shall provide an enclosed dust-proof chute.

I. After completion of stripping work, all surfaces from which ACM has been removed shall be wet cleaned or cleaned by an equivalent method to remove all visible suspect ACM (wire brushes are prohibited). During this work, the surfaces being cleaned shall be kept adequately wet, without causing a safety hazard.

J. Remove and containerize all visible accumulations of asbestos-containing and/or asbestos-contaminated debris. Waste shall be containerized in labeled and signed 6-mil poly disposable bags. Tie wraps for bags shall be plastic, 5-inches long (minimum), pointed and looped to secure filled plastic bags.

K. At any time during asbestos abatement should the Consultant suspect contamination of areas outside the work area(s), they shall issue a stop work order until the Contractor takes required steps to decontaminate these areas, and to eliminate the causes of such contamination. Unprotected individuals shall be prohibited from entering suspected contaminated areas until air sampling and visual inspections indicate acceptable decontamination.

L. The Consultant shall conduct a final visual inspection of the work area. If residual suspect ACM debris is identified during the course of the final inspection, the Contractor shall comply with the Consultant’s request to render the area clean of all residual ACM.

3.6 ASBESTOS REMOVAL PROCEDURE – EXTERIOR CAULKING AND ORIGINAL FLASHING TARS ASSOCIATED WITH PARAPET WALLS

A. The Contractor shall establish a regulated area around the perimeter of the work area. Only properly trained and licensed persons shall be permitted to enter this area.

B. Prior to beginning the removal of any ACMs, remove all movable objects from the work area. Ensure any building openings (vents, windows, fans, etc.) de-activated, when applicable, and sealed with 6mil poly.

C. When and where feasible, lay 6mil polyethylene sheeting below the work area to act as a drop-cloth and ensure all material is collected within its foot print. The drop cloth should extend at least ten feet (10) past the plane of the work area.

D. Remove exterior caulking and original flashing tar materials associated with the parapet walls using the following procedure:

1. Wet the caulking/tar with amended water, removal encapsulant, or detergent solution, so that entire surface is wet. Do not allow puddle or run off to other areas. Do not soak the area to the extent that water enters the interior of the structure. If a removal encapsulant is used, use in strict accordance with manufacturer's instructions. Allow time for amended water, removal encapsulant, or detergent solution to absorb prior to removal.
2. Keep caulking/tar materials continuously wet throughout removal operation.
3. Remove caulking/tar materials using a manual spade or stripping device. Continuously area with amended water, removal encapsulant or detergent solution. Wet any debris generated as necessary to keep continuously wet.
4. Use handheld methods, such as wire brush or hand pick, to remove the material from porous substrate, if applicable.
5. If handheld methods are not viable to clean the porous surfaces to rid them of asbestos containing caulking, utilize power tools equipped with a misting system or HEPA filtration to ensure no visible emissions occur. Continuously mist the area with amended water to eliminate the possibility of visible dust emissions.

D. Debris and Waste

1. Pick waste debris created immediately.
2. Place debris into labeled disposal bags.
3. Place bagged waste in a second labeled disposal bag and dispose of as asbestos waste.

E. Exterior caulking/tar materials must be removed intact and placed into a labeled container for disposal.

F. At any time during asbestos removal should the material become friable, all abatement work must stop and the material will then be treated as a regulated material. A negative pressure enclosure will then be constructed and unprotected individuals shall be prohibited from entering the area

G. After completion of all removal work the Contractor shall conduct final cleaning.

3.7 ASBESTOS REMOVAL PROCEDURE – ORIGINAL UNIT/CHIMNEY FLASHING MATERIAL AND ASSOCIATED TAR

A. The Contractor shall establish a regulated area around the perimeter of the work area. Only properly trained and licensed persons shall be permitted to enter this area.

B. Prior to beginning the removal of any ACMs, remove all movable objects from the work area. Ensure any building openings (vents, windows, fans, etc.) de-activated, when applicable, and sealed with 6mil poly.

C. When and where feasible, lay 6mil polyethylene sheeting around the work area to act as a drop-cloth and ensure all material is collected within its foot print. The drop cloth should extend at least ten feet (10) past the plane of the work area.

D. Remove flashing materials and flashing tars associated with the original roof units and chimneys using the following procedure:

1. Wet the flashing material/flashing tar with amended water, removal encapsulant, or detergent solution, so that entire surface is wet. Do not allow puddle or run off to other areas. Do not soak the area to the extent that water enters the interior of the structure. If a removal encapsulant is used, use in strict accordance with manufacturer's instructions. Allow time for amended water, removal encapsulant, or detergent solution to absorb prior to removal.
2. Keep flashing material/flashing tar materials continuously wet throughout removal operation.
3. Remove flashing material/flashing tar using a manual cutting tool. Cut at least two (2) feet of material from the entire perimeter of each unit/chimney. Continuously area with amended water, removal encapsulant or detergent solution. Wet any debris generated as necessary to keep continuously wet.

D. Debris and Waste

1. Pick waste debris created immediately.
2. Place debris into labeled disposal bags.
3. Place bagged waste in a second labeled disposal bag and dispose of as asbestos waste.

E. Exterior caulking/tar materials must be removed intact and placed into a labeled container for disposal.

F. At any time during asbestos removal should the material become friable, all abatement work must stop and the material will then be treated as a regulated material. A negative pressure enclosure will then be constructed and unprotected individuals shall be prohibited from entering the area

G. After completion of all removal work the Contractor shall conduct final cleaning.

3.8 CONSULTANT AND SUSPENSION OF WORK

A. The Owner will designate an Asbestos Consultant to perform the duties of the for this Contract. The Consultant may also act as the APM for the project.

B. The removal work shall be reviewed by the Consultant. The Contractor will request an inspection at least 24 hours in advance of requiring the inspection.

C. The Consultant will recommend that the Owner order a suspension of work based on a determination of risk of adverse health and safety impacts on the environment, workers, or the general public, or failure to comply with the Specifications/regulations. The Contractor and the Owner will be notified in writing of the reason and of the recommended resolution.

D. During the progress of the work, the Consultant, following approval by the Owner, shall have the right to make any changes, alterations, additions or omissions in the work or Specifications in accordance with the General Conditions.

E. The Consultant will provide visual inspection services throughout the Contract's duration. It shall be the Contractor's responsibility to comply with pertinent work standards and regulations.

F. The Consultant will conduct visual observations and perform inspections in the work area to evaluate that the work area remains properly secured and isolated and specified work items are properly completed. Upon completion of work in a defined work area, the Consultant will conduct a final visual inspection for the purpose of evaluating work completion. Unsatisfactory conditions shall be immediately corrected in a manner specified by the Consultant and the contract documents. Final payments shall be approved only after the Owner receives all properly completed Waste Shipment Record Forms and other required documentation and records.

3.9 CONSULTANTS' AIR SAMPLING RESPONSIBILITIES

A. Air sampling may be conducted by the Consultant to ascertain the integrity of engineering controls that protect the building from possible asbestos contamination. Independently, the Contractor shall monitor air quality within the work area to ascertain the protection of employees and to comply with OSHA regulations.

D. The Consultant's air sampling professional may collect and analyze air samples during the following time period:

1. Abatement Period. If required, the Consultant's project monitor shall collect air samples on a daily basis during the work period. A sufficient number of area air samples shall be collected upwind and downwind of the work area, waste debris chute (if applicable) and the building exterior to evaluate the degree of cleanliness or contamination of the building during removal. Additional air samples may be collected inside the work zone and decontamination system, at the discretion of the project monitor.

C. The Consultant's project monitor may provide evaluation of the air quality outside the building during removal, using their best professional judgment in respect to the CTDPH guideline of 0.010 f/cc.

D. If the project monitor determines that the air quality has become contaminated from the project, they shall immediately inform the Contractor to cease all removal operations and implement a work stoppage clean up procedure. The Contractor shall conduct a thorough cleanup of the building areas designated by the Consultant. No further removal work may occur until the project monitor has assessed that the building air has been decontaminated.

E. Abatement air samples shall be collected as required to obtain a volume of 1,200 liters of air. Air samples shall be analyzed by PCM NIOSH Method 7400 sampling protocol.

3.10 CONSULTANT'S INSPECTION RESPONSIBILITIES

A. Consultant may conduct inspections throughout the progress of the abatement project. Inspections shall be conducted to document the progress of the abatement work, as well as the procedures and practices employed by the Contractor.

B. The Consultant may perform the following inspections during the course of abatement activities:

1. Pre-commencement Inspection. Pre-commencement inspections shall be performed at the time requested by the abatement Contractor. The Consultant shall be informed a minimum of 12-hours prior to the time the inspection is required. If, during the course of the pre-commencement inspection, deficiencies are identified, the Contractor shall perform the necessary adjustments to obtain compliance.

2. Work Area Inspection. Work area inspections shall be conducted on a daily basis at the discretion of the Consultant. During the course of the work inspections, the Consultant shall observe the Contractor's removal methods and procedures, verify barrier integrity, monitor negative air filtration devices, assess project progress, and inform the Contractor of specific remedial activities if deficiencies are noted.

C. The Consultant shall perform the following inspection during the course of abatement activities:

1. Final Visual Inspection. Upon request of the Contractor, the Consultant shall conduct a final work area visual inspection. If residual dust or debris is identified during the course of the final inspection, the Contractor shall comply with the request of the Consultant to render the area “dust free.”

3.11 WASTE DISPOSAL

A. ACM disposal or asbestos-contaminated material disposal must be in compliance with requirements of and authorized by CTDEEP and CTDPH.

B. The Contractor shall obtain disposal approvals before commencing asbestos abatement.

C. A copy of approved disposal authorization shall be provided to the Owner and Consultant and any required federal, state, or local agencies.

D. The Consultant will retain copies of all Waste Shipment Records as part of the project file. On receipt, the landfill operator will sign the receipts, and the quantity of asbestos debris leaving the Site and arriving at the landfill must be consistent and acknowledged.

E. All asbestos debris shall be transported in covered, sealed vans, boxes, or dumpsters that are physically isolated from the driver by an airtight barrier. All vehicles must be properly licensed to meet DOT requirements.

F. Any vehicles used to store or transport ACM will either be removed from the property at night, or shall be securely locked and posted to prevent disturbance.

G. Any incident and/or accident that may result in spilling, exposure or environmental release of asbestos waste outside the work area, on and off the property, and all related issues shall be the sole responsibility of the Contractor.

3.12 PROJECT RESTORATION

A project walk-through shall be conducted, by the Owner or Owner’s Consultant (upon the Owners request), after the removal portion of the project to identify areas or equipment damaged during the work. If the Owner determines that the damage is caused by acts or omissions of the Contractor, a punch list shall be developed. The Contractor shall be responsible for repair or replacement, or at the discretion of the Owner, payment for the work of another Contractor to complete the punch list. A second walk through shall be conducted after completion of punch list items.

END OF SECTION

SECTION 020850 CERTIFICATE OF WORKER'S ACKNOWLEDGEMENT

CERTIFICATE OF WORKER'S ACKNOWLEDGMENT

PROJECT NAME_____DATE_____
PROJECT ADDRESS_____
CONTRACTOR'S NAME_____

WORKING WITH ASBESTOS CAN BE DANGEROUS. INHALING ASBESTOS FIBERS HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.
Your employer's contract with the Owner for the above project requires that: You be supplied with the proper respirator and be trained in its use. You be trained in safe work practices and in the use of the equipment found on the job. You receive a medical examination. These things are to have been done at no cost to you.

RESPIRATORY PROTECTION: You must have been trained in the proper use of respirators, and informed of the type respirator to be used on the above referenced project. You must be given a copy of the written respiratory protection manual issued by your employer. You must be equipped at no cost with the respirator to be used on the above project.

TRAINING COURSE: You must have been trained in the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and area protective measures. The topics covered in the course must have included the following:

- Physical characteristics of asbestos
- Health hazards associated with asbestos
- Respiratory protection
- Use of protective equipment
- Pressure Differential Systems
- Work practices including hands on or on-job training
- Personal decontamination procedures
- Air monitoring, personal and area

MEDICAL EXAMINATION: You must have had a medical examination within the past 12 months at no cost to you. This examination must have included: health history, pulmonary function tests and may have included an evaluation of a chest x-ray.
By signing this document, you are acknowledging only that the Owner of the building you are about to work in has advised you of your obligation to training and protection relative to your employer, the Contractor.

Signature_____

Printed
Name_____Witness_____

Limited Asbestos Inspection Report
Roof Replacement

For

Tinker Elementary School

809 Highland Avenue
Waterbury, CT 06708

PREPARED FOR:

Waterbury Public Schools
236 Grand Street
Waterbury CT, 06702

PREPARED BY:

121 North Plains Industrial Rd; Unit F
Wallingford, CT 06492
Phone (203) 288-1281

June 12, 2023

FSS Project #15823

SIGNATURES OF REPORT AUTHORS

The employees of Facility Support Services, LLC whose names appear below prepared this report. Requests for information on the content of this document should be directed to these individuals.



Michael DiFabio
CT DPH Asbestos Inspector (#000340)

I. PROJECT NARRATIVE

Facility Support Services, LLC (FSS) was contracted to perform a limited asbestos inspection at Tinker Elementary School, located at 809 Highland Ave in Waterbury, Connecticut. The inspection took place on June 1st and 2nd, 2023, with the purpose of identifying the presence of asbestos in suspect materials prior to future replacement of specific sections of the building's roof. Roof sections included in this project and inspection include the following homogenous groups:

Homogenous Roof Sections -
Group #1: A, B, C, D, E
Group #2: F
Group #3: G, H, J
Note: Roof section "I" is not listed in the reference drawings

Please see the attached drawings (page A-1) provided by Silver Petrucelli & Associates to reference roof section identification.

The asbestos inspection was performed following the Environmental Protection Agency (EPA), National Emissions Standard for Hazardous Air Pollutants (NESHAP) regulations for building renovations and demolition, 40 CFR Part 61, Amended 11/20/1990. In accordance with contract terms, non-destructive sampling techniques were utilized, and inaccessible materials were not included in this inspection (sub-slab, sub-frame, wall chases, etc.). Should these inaccessible areas be subject to renovations and suspect materials are discovered, sampling and analysis must be conducted to confirm asbestos content.

Between June 1st and 2nd, 2023 a total of forty-two (42) bulk suspect asbestos samples were collected. The materials identified and sampled from the building are detailed in the following list.

- Roof "C" (6/1/23)
  - Top Layer Rolled Roofing
  - Underlying Brown w/ White Specks Material
  - Original Roof Field Tar (in stone)
  - Original Roofing on Concrete Deck
  - Original Parapet Wall/Edge Flashing Material (on wood)
  - Original Parapet Wall/Edge Flashing Tar (on wood)
  - Old Unit Flashing Tar
  - Old Unit Flashing Material
- Roof "D" (6/1/23)
  - Original Parapet Wall Drip Edge Caulking (white/tan)
  - Original Parapet Wall Flashing Tar
- Roof "G" (6/2/23)
  - Top Layer Roof Membrane (beneath field stone)
  - Underlying Light Brown w/ White Specks Insulation
  - Base Layer Membrane on Rosin Paper
  - Rosin Paper on Concrete Roof Deck
  - Edge/Unit Flashing Material
  - Edge/Unit Flashing Tar (original black)
  - Edge/Unit Flashing Tar (patch gray
  - White Caulk on Drip Edge/Top Cap Mortar Joints
- Roof "H" (6/2/23)
  - Drip Edge Caulking Gray/Tan

- Roof "F" (6/2/23)
    - Original Black Flashing Tar

Note: Samples collected during this inspection represent the aforementioned homogenous "groups" associated with this roof replacement project.

II. SUMMARY OF RESULTS

Samples of building materials collected by FSS were analyzed by EMSL Analytical, Inc., for EPA method 600/R-93/116. This is currently the approved EPA test method, which uses Polarized Light Microscopy (PLM) that uses dispersion staining. EMSL Analytical, Inc. is an accredited asbestos laboratory (NVLAP #200700-0) and is a State of Connecticut approved public health laboratory for asbestos analysis.

The Following Asbestos Containing Materials Were Identified During the Inspection

- Homogenous Group #1
    - Old Unit Flashing Tar
    - Old Unit Flashing Material
    - Original Parapet Wall Drip Edge Caulking (white/tan)
    - Original Parapet Wall Flashing Tar

Laboratory results have revealed that these tested materials are considered asbestos containing materials according to CT DPH Regulations (i.e., contains more than 1% asbestos).

See Section V for a copy of the laboratory analytical reports for the samples collected.

III. CONCLUSIONS

The Old Unit flashing material and tar & Original Parapet wall flashing tar and drip edge caulking materials contain asbestos and are considered "Asbestos Containing Materials" by EPA definition ($\geq$ 1% asbestos). Removal and disposal of these materials should be performed by a CT DPH license asbestos abatement contractor or roofing contractor certified and properly trained to conduct this work in the State of Connecticut.

Other materials sampled during this inspection did not contain asbestos according to laboratory analysis.

Roof Section "F" was not sampled during this inspection. FSS did not observe any materials suspected to contain asbestos. The roof structure was constructed of a plastic or metal type material with silicone sealant material.

FSS made reasonable effort to locate and identify all suspect asbestos containing materials that are part of this project. Any material discovered and may be impacted during project activities, which have not been included in this survey or previously sampled, must be presumed to contain asbestos until such time that bulk samples can be collected and analyzed for asbestos content.

IV. LABORATORY ANALYTICAL RESULTS

EMSL Analytical, Inc.

165 Gracey Avenue Meriden, CT 06451

Tel/Fax: (203) 284-5948 / (203) 284-5978

http://www.EMSL.com / meridenlab@emsl.com

EMSL Order:	242302787
Customer ID:	FSS93
Customer PO:	
Project ID:	

Attention:	Michael DiFabio	**Phone:**	(203) 288-1281
	Facility Support Services, LLC	**Fax:**	(203) 248-4409
	121 North Plains Industrial Road, Unit F	**Received Date:**	06/05/2023 1:15 PM
	Wallingford, CT 06492	**Analysis Date:**	06/09/2023 - 06/12/2023
		Collected Date:	
Project:	TINKER/ 15823		

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
158230601-01A *242302787-0001*	Roof C - top layer rolled roof	Black Fibrous Homogeneous	15% Glass	5% Quartz 80% Non-fibrous (Other)	None Detected
158230601-01B *242302787-0002*	Roof C - top layer rolled roof	Black Fibrous Homogeneous	10% Glass	5% Quartz 85% Non-fibrous (Other)	None Detected
158230601-02A *242302787-0003*	Roof C - underlying brown w/white specs insulation	Brown/Gray Fibrous Homogeneous	50% Cellulose	5% Perlite 45% Non-fibrous (Other)	None Detected
158230601-02B *242302787-0004*	Roof C - underlying brown w/white specs insulation	Brown Fibrous Homogeneous	65% Cellulose	5% Perlite 30% Non-fibrous (Other)	None Detected
158230601-03A *242302787-0005*	Roof C - original roof field tar (in stores)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-03B *242302787-0006*	Roof C - original roof field tar (in stores)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-04A *242302787-0007*	Roof C - original roofing on concrete deck	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-04B *242302787-0008*	Roof C - original roofing on concrete deck	Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
158230601-05A *242302787-0009*	Roof C - original parapet wall/edge flashing material (on wood)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-05B *242302787-0010*	Roof C - original parapet wall/edge flashing material (on wood)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-06A *242302787-0011*	Roof C - original parapet wall/edge flashing tar (on wood)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-06B *242302787-0012*	Roof C - original parapet wall/edge flashing tar (on wood)	Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
158230601-07A *242302787-0013*	Roof C - old unit flashing tar	Black/Silver Non-Fibrous Homogeneous		93% Non-fibrous (Other)	7% Chrysotile
158230601-07B *242302787-0014*	Roof C - old unit flashing tar	Black Non-Fibrous Homogeneous	5% Cellulose	90% Non-fibrous (Other)	5% Chrysotile
158230601-08A *242302787-0015*	Roof C - old unit flashing material	Brown/Black Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile

Initial report from: 06/12/2023 14:55:31

EMSL Analytical, Inc.
165 Gracey Avenue Meriden, CT 06451
Tel/Fax: (203) 284-5948 / (203) 284-5978
http://www.EMSL.com / meridenlab@emsl.com

EMSL Order: 242302787
Customer ID: FSS93
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
158230601-08B *242302787-0016*	Roof C - old unit flashing material	Black Fibrous Homogeneous	45% Cellulose	47% Non-fibrous (Other)	8% Chrysotile
158230601-09A *242302787-0017*	Roof D - original parapet wall drip edge caulking	Gray/White/Black Non-Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
158230601-09B *242302787-0018*	Roof D - original parapet wall drip edge caulking	Black Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
158230601-10A *242302787-0019*	Roof D - original parapet wall flashing tar	Black Non-Fibrous Homogeneous		88% Non-fibrous (Other)	12% Chrysotile
158230601-10B *242302787-0020*	Roof D - original parapet wall flashing tar	Black Non-Fibrous Homogeneous		90% Non-fibrous (Other)	10% Chrysotile
158230601-11A *242302787-0021*	Roof G - top layer roof membrane (beneath field store)	Black Fibrous Homogeneous	10% Glass	5% Quartz 85% Non-fibrous (Other)	None Detected
158230601-11B *242302787-0022*	Roof G - top layer roof membrane (beneath field store)	Black Fibrous Homogeneous	15% Glass	5% Quartz 80% Non-fibrous (Other)	None Detected
158230601-12A *242302787-0023*	Roof G - underlying light brown w/white specks insulation	Tan/White Fibrous Homogeneous	70% Cellulose	5% Perlite 25% Non-fibrous (Other)	None Detected
158230601-12B *242302787-0024*	Roof G - underlying light brown w/white specks insulation	Gray/Tan Fibrous Homogeneous	60% Cellulose	5% Perlite 35% Non-fibrous (Other)	None Detected
158230601-13A *242302787-0025*	Roof G - base layer membrane (on rosin paper)	Black Fibrous Homogeneous	65% Cellulose	35% Non-fibrous (Other)	None Detected
158230601-13B *242302787-0026*	Roof G - base layer membrane (on rosin paper)	Black Fibrous Homogeneous	55% Cellulose	45% Non-fibrous (Other)	None Detected
158230601-14A *242302787-0027*	Roof G - rosin paper on concrete roof deck	Brown Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
158230601-14B *242302787-0028*	Roof G - rosin paper on concrete roof deck	Brown/Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
158230601-15A *242302787-0029*	Roof G - edge/unit flashing material	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-15B *242302787-0030*	Roof G - edge/unit flashing material	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-16A *242302787-0031*	Roof G - edge/unit flashing tar (original black)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-16B *242302787-0032*	Roof G - edge/unit flashing tar (original black)	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-17A *242302787-0033*	Roof G - edge/unit flashing tar (patch gray)	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected
158230601-17B *242302787-0034*	Roof G - edge/unit flashing tar (patch gray)	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected

Initial report from: 06/12/2023 14:55:31

EMSL Analytical, Inc.

165 Gracey Avenue Meriden, CT 06451

Tel/Fax: (203) 284-5948 / (203) 284-5978

http://www.EMSL.com / meridenlab@emsl.com

EMSL Order:	242302787
Customer ID:	FSS93
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
158230601-18A *242302787-0035*	Roof G - white caulk on drip edge/top cap mortar joints	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-18B *242302787-0036*	Roof G - white caulk on drip edge/top cap mortar joints	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-19A *242302787-0037*	Roof H - drip edge caulking gray/tan	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-19B *242302787-0038*	Roof H - drip edge caulking gray/tan	Gray/Tan/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-20A *242302787-0039*	Roof F - original black flashing tar	Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
158230601-20B *242302787-0040*	Roof F - original black flashing tar	Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
158230601-21A *242302787-0041*	Roof F - white/light gray flashing caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
158230601-21B *242302787-0042*	Roof F - white/light gray flashing caulk	White/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Hailey Rangel (21)

Sara Poppa (21)

Danny Sandhu, Asbestos Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 “Interim Method”) but augmented with procedures outlined in the 1993 (”final”) version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Meriden, CT NVLAP Lab Code 200700-0,

Initial report from: 06/12/2023 14:55:31

OrderID: 242302787

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only: 242302787

EMSL Analytical, Inc.
165 Gracey Ave
Meriden, CT 06451
PHONE: (203) 284-5948
EMAIL: MeridenLab@emsl.com

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

Customer Information		Billing Information	
Customer ID.		Billing ID:	
Company Name:	Facility Support Services, LLC.	Company Name:	Facility Support Services, LLC.
Contact Name:	Michael DiFabio	Billing Contact:	Michele Viarengo
Street Address:	121 North Plains Industrial Road; Unit F	Street Address:	121 North Plains Industrial Road; Unit F
City, State, Zip:	Wallingford CT 0649 Country: US	City, State, Zip:	Wallingford CT 06492 Country: US
Phone:	2032881281	Phone:	203-288-1281
Email(s) for Report:	mdifabio@fssteam.com	Email(s) for Invoice:	

Project Information

Project Name/No: Tinker / 15823 | Purchase Order:

EMSL LIMS Project ID: (If applicable, EMSL will provide) | US State where samples collected: CT | State of Connecticut (CT) must select project location: ☐ Commercial (Taxable) ☐ Residential (Non-Taxable)

Sampled By Name: Michael DiFabio | Sampled By Signature: | No. of Samples in Shipment

Turn-Around-Time (TAT)

☐ 3 Hour ☐ 4-4.5 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☒ 1 Week ☐ 2 Week

TEM Air 3-6 Hour, please call ahead to schedule. 32 Hour TAT available for select tests only; samples must be submitted by 11:30 am.

Test Selection

PCM Air
- ☐ NIOSH 7400
- ☐ NIOSH 7400 w/ 8hr. TWA

PLM - Bulk (reporting limit)
- ☒ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)
- ☐ POINT COUNT
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- POINT COUNT w/ GRAVIMETRIC
  - ☐ 400 (<0.25%) ☐ 1,000 (<0.1%)
- ☐ NIOSH 9002 (<1%)
- ☐ NYS 198.1 (Friable - NY)
- ☐ NYS 198.6 NOB (Non-Friable - NY)
- ☐ NYS 198.8 (Vermiculite SM-V)

TEM - Air
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312*

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (Non-Friable-NY)
- ☐ TEM EPA 600/R-93/116 w Milling Prep (0.1%)

Other Test (please specify)

TEM - Settled Dust
- ☐ Microvac - ASTM D5755
- ☐ Wipe - ASTM D6480
- ☐ Qualitative via Filtration Prep
- ☐ Qualitative via Drop Mount Prep

Soil - Rock - Vermiculite (reporting limit)*
- ☐ PLM EPA 600/R-93/116 with milling prep (<0.25%)
- ☐ PLM EPA 600/R-93/116 with milling prep (<0.1%)
- ☐ TEM EPA 600/R-93/116 with milling prep (<0.1%)
- ☐ TEM Qualitative via Filtration Prep
- ☐ TEM Qualitative via Drop Mount Prep

*Please call with your project-specific requirements.

☐ Positive Stop - Clearly Identified Homogeneous Areas (HA) | Filter Pore Size (Air Samples) ☐ 0.8um ☐ 0.45um

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
	See Attached		

RECEIVED JUN 02 2023 13:16

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Method of Shipment: Drop-off		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time: 6/2/2023 13:16	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-05 Asbestos R15 4/23/2021

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

242302787

FACILITY SUPPORT SERVICES, LLC

Asbestos Sampling Log

CLIENT: Waterbury Board of Ed DATE: 6/1/2023 / 6/2/2023

LOCATION: Tinker Elementary School SAMPLED BY: M. Difabio

SAMPLE ID	LOCATION	DESCRIPTION
158230601-01A	Roof C	Top layer Rolled Roof
B		↓
02A		Underlying Brown w/White Specks insulation
B		↓
03A		Original Roof Field Tar (In stones)
B		↓
04A		original Roofing on Concrete Deck
B		↓
05A		original Parapet Wall / Edge Flashing Material (on wood)
B		↓
06A		original Parapet Wall / Edge Flashing Tar (on wood)
B		↓
07A		Old Unit Flashing Tar
B		↓
08A		Old Unit Flashing Material
B	↓	↓
09A	Roof D	original Parapet Wall Drip Edge Caulking
B	↓	↓
10A		original Parapet Wall Flashing Tar
B	↓	

RECEIVED
JUN 02 2023
BY:

2685 STATE STREET • HAMDEN, CT 06517
PH: 203-288-1281 • FAX: 203-248-4409
Website: www.fssteam.com

OrderID: 242302787

242302787

FACILITY SUPPORT SERVICES, LLC

Asbestos Sampling Log

CLIENT: Waterbury Board of Ed DATE: 6/2/2023

LOCATION: Tinker Elementary School SAMPLED BY: M. D'Fabio

SAMPLE ID	LOCATION	DESCRIPTION
158230601-11A	Roof G	Top layer Roof Membrane (Beneath Field stone)
B	↓	↓
12A		Underlying Light Brown w/ White specks Insulation.
B		↓
13A		Base layer Membrane (on Rosin paper)
B		↓
14A		Rosin Paper on Concrete Roof Deck
B		↓
15A		Edge/Unit Flashing Material
B		↓
16A		Edge/Unit Flashing. Tar (original) Black
B		↓
17A		Edge/Unit Flashing Tar (patch Gray)
B		↓
18A		White Caulk on Drip Edge/Top Cap Mortar Joints
B	↓	↓
19A	Roof H	Drip Edge Caulking Gray/Tan
B	↓	↓
20A	Roof F	original Black Flashing Tar
B	↓	↓

2685 STATE STREET • HAMDEN, CT 06517
PH: 203-288-1281 • FAX: 203-248-4409
Website: www.fssteam.com

RECEIVED
JUN 02 2023
13:18

OrderID: 242302787

242302787

FACILITY SUPPORT SERVICES, LLC

Asbestos Sampling Log

CLIENT: Waterbury Board of Ed DATE: 6/2/2023

LOCATION: Tinker Elementary School SAMPLED BY: M. DiFabio

SAMPLE ID	LOCATION	DESCRIPTION
15823060I - 21A	Roof F	White/light Gray Flashing Caulk
B	↓	↓

4 of 4

RECEIVED
JUN 02 2023
By 13:18

2685 STATE STREET • HAMDEN, CT 06517
PH: 203-288-1281 • FAX: 203-248-4409
Website: www.fssteam.com

V. LICENSURE

1000462 SP 0564 -C01-P00464-I

MICHAEL V DIFABIO
[redacted]

Dear MICHAEL V DIFABIO,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

MANISHA JUTHANI, MD, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

1000462-0000466-0000001 of 0000001-C01-a1d00101-0564-00464

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

MICHAEL V DIFABIO

CERTIFICATE NO.
000340

CURRENT THROUGH
12/31/23

VALIDATION NO.
03-009736

SIGNATURE COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
MICHAEL V DIFABIO

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-009736	000340	12/31/23

PROFESSION
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SIGNATURE COMMISSIONER

INSTRUCTIONS:

1. Detach and sign each of the cards on this form
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
MICHAEL V DIFABIO

VALIDATION NO.	CERTIFICATE NO.	CURRENT THROUGH
03-009736	000340	12/31/23

PROFESSION
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SIGNATURE COMMISSIONER

VI. DRAWINGS



FIGURE 1	PROJECT NO. 18723	SCALE: NTS	DATE: 16 JUNE 2023	PHOTO REFERENCE: Google Maps 2023	ABATEMENT AREA SKETCH	FACILITY SUPPORT SERVICES, LLC ENVIRONMENTAL & SAFETY CONSULTING	PROJECT NO. 18723
					B.W. TINKER ELEMENTARY SCHOOL 809 HIGHLAND AVENUE WATERBURY CT, 06708	121 NO. PLAINS INDUSTRIAL RD. UNIT F WALLINGFORD, CT 06492 (203) 288-1281 WWW.FSSTEAM.COM	FIGURE 1

VII. PHOTOGRAPHS



Sample core from Roof “C” - Representative of homogenous Group #1



Homogenous Group #1 Unit/Edge Flashing



Asbestos containing Parapet Wall Drip Edge Caulking – Representative of homogenous Group #1



Asbestos containing Old Unit Flashing Material and Tar -Representative of homogenous Group #1



Drip Edge Caulking on Roof “H” – Representative of homogenous Group #3



Sample core from Roof “G” - Representative of homogenous Group #3



White Caulk on Drip Edge/Top Cap Mortar Joints & Edge/Unit Flashing Tar (Original Black) & Edge/Unit Flashing Tar (Patch Gray) – Representative of homogenous Group #3)



Example of Edge Flashing of Homogenous Group #3 (Flashing material, original black tar, gray patch tar, white drip edge caulking)

SECTION 035113 - CEMENTITIOUS WOOD FIBER AND GYPSUM DECKS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Pourable gypsum deck system for existing roof deck repairs.
2. Monolithic cementitious wood-fiber units.
3. Subpurlins and grout.

B. Related Requirements:

1. Section 012100 “Allowances” for Work of this Section included in allowances.
2. Section 012200 “Unit Prices” for Work of this Section included in unit prices.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated with the minimum as follows for gypsum:

1. Compressive strength.
2. Oven dry density.
3. Coefficient of heat transmission.

B. Shop Drawings: Include details at supports, reinforcement at openings, and attachment to other work.

C. Samples: Show texture, finish, and edge and end configurations of monolithic cementitious wood-fiber units, 12 inches long by width of unit.

1.4 INFORMATIONAL SUBMITTALS

A. Welding certificates.

B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency.

C. Evaluation Reports: For cementitious wood-fiber deck, from ICC-ES.

1.5 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1, "Structural Welding Code - Steel."

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver all materials to the building site in original unopened, undamaged packages or containers, or approved bulk handling equipment, with manufacturer's brand name and contents clearly identified.

B. Protect materials from moisture during shipment and after delivery.

C. Store materials on elevated platforms at Project site in a dry, well-ventilated, covered space and stack according to manufacturer's written recommendations.

D. Handle materials to prevent chipping, breaking, cracking, staining, soiling, warping, or other physical damage. Discard damaged units at time of installation.

1.7 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit work to be performed according to manufacturers' written instructions and warranty requirements.

B. Protect materials from moisture during installation and while exposed to the weather until permanently covered with subsequent construction.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Flame-Spread Index: 25 or less.
2. Smoke-Developed Index: 50 or less.

2.2 MONOLITHIC CEMENTITIOUS WOOD-FIBER UNITS

A. Concealed-Tee Monolithic Plank: Manufacturer's standard cementitious wood-fiber units, 3 inches thick but to match existing, with edges kerfed, back rabbeted, and beveled.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

a. Armstrong Building Solutions.; **Tectum I**
b. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Size: Manufacturer's standard width; length to span a minimum of two (2) support spacings.
3. End Configuration: Square.
4. Finish: Manufacturer's standard natural finish.

2.3 SUBPURLINS AND GROUT

A. Bulb-Tee Subpurlins: Hot-rolled steel bulb tees, complying with ASTM A 499, of length required to span three (3) support spacings; shop painted with metal primer.

B. Gypsum Concrete Grout: Factory-packaged, gypsum concrete grout formulation recommended by cementitious wood-fiber unit manufacturer with a minimum compressive strength of 500 psi.

2.4 MATERIALS

A. Gypsum Repair Material: Pourable gypsum deck repair material to match the profile and strength of the existing deck. This material will include reinforcement to match existing, tying the reinforcement into existing reinforcement for a contiguous slab finish. If the form is not in good condition, a form board to match existing shall be used over which the reinforced gypsum roof repair shall be installed.

B. Aggregate: ASTM C 332, Group I.

C. Water: Water shall be clean and free from injurious amounts of acids, alkali, organic matter, or other deleterious substances.

D. Grout: Premixed gypsum concrete such as **Tectum grout**, **Pyrofill**, **Structolite** or **MetroMix** or as recommended by the roof deck manufacturer.

2.5 ACCESSORIES

A. Screws: Manufacturer's recommended, corrosion-resistant screw fasteners and washers, self-drilling, self-tapping, of length required for deck and structural framing indicated.

B. Nails: Manufacturer's recommended corrosion-resistant nails of size and length required for deck and structural framing indicated.

C. Adhesive: Manufacturer's recommended construction adhesive complying with APA AFG-01.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine structural support framing for compliance with requirements, installation tolerances, and other conditions affecting performance of the Work.

B. Verify that existing roof surface is clear and ready for work of this Section.

C. Do not remove sections of existing roofing membrane that is ponded or on which water is present, as this water may infiltrate into the roof, requiring remedial treatment that will affect the roofing procedures and schedule.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Sweep roof surface clean of loose matter. Remove loose refuse and dispose offsite.

B. Control dust, noise, and debris to the satisfaction of the Owner.

C. Remove all ponded and standing water areas adjacent to roof project areas before commencing roof removal operations.

3.3 CEMENTITIOUS WOOD FIBER DECK INSTALLATION

A. Comply with manufacturer's written instructions for installing cementitious wood-fiber deck.

1. Install fastenings according to manufacturer's written instructions unless otherwise indicated.

B. Deck Interruptions: Provide barrier seals or blocking at overhangs to form wind seals and at partitions and walls to form sound seals unless otherwise indicated.

C. Concealed-Tee Plank Roof Deck: Install planks progressively with long dimension perpendicular to supports and with end joints in alternate rows, staggered and centered over supports unless otherwise indicated. Install flange of bulb tee into kerfed edge and tightly butt adjoining plank to engage other flange. Tightly butt square end joints.

1. Cut panels to provide starter units.
2. Continuously support plank edges and ends at perimeter of building and at openings in deck.
3. Mechanically fasten planks to supports and perimeter members.
4. Fill void with gypsum concrete grout where edge joints meet subpurlins. Strike grout flush with top of plank and feather uneven top surfaces to a plane.

3.4 GYPSUM DECK MATERIAL REMOVAL AND REPLACEMENT

A. Deck Examination

1. Evaluate existing gypsum roof deck surfaces and remove deteriorated existing gypsum deck surfaces in accordance with the following criteria:

a. Upon removal of existing roof membranes and slip sheets (if any), the existing gypsum roof deck should be firm and dry. If this is the case, roofing operations can proceed as specified elsewhere in the construction documents.
b. If the gypsum roof deck is saturated, viscous, pliable, wet to the touch or in any way exhibiting distress, the contractor shall cordon off the wet or distressed area, permitting the roof deck to dry, either under ambient conditions or using dryers prescribed by reputable gypsum roofing system manufacturers.

1) The drying process may require tenting over the area or other appropriate protective measures to enhance the drying process. This procedure may require water damming around the drying areas to prohibit storm water from infiltrating the area, which will be installed and monitored as required by the Contractor to expedite the drying process.
2) If the existing gypsum material drys to a firm, dry finish without spalling, fracturing or delamination, to a depth of one-half (½) of the deck thickness measured from above, the deck is suitable for re-roofing, which should proceed with caution as the core material cures.
3) If the existing gypsum roof deck materials spalls, delaminates or fractures in large pieces, the structural integrity of the area is compromised, and the wet and delaminated section must be removed and replaced with pourable gypsum material as specified.

B. Deck Removal

1. Should the examination procedures determine that the area is no longer structurally viable, the Contractor shall remove the deteriorated sections in accordance with the following procedure:

    a. Sawcut and remove the deteriorated sections completely between the parallel supporting bulb tees or subpurlins. Sawcutting will be done with a radial saw with a steel cutting blade to mitigate damage to the adjacent sound and reinforced gypsum roof deck surfaces.
    b. Protect the ceiling, floor, and furniture surfaces below the removed roof section, replacing damaged interior finishes and equipment as required to restore the space to its original condition.

2. Remove all loose and bulky gypsum material from the bulb tees, providing a suitable bearing surface for the pourable gypsum material.
3. Touch up rusted areas of the subpurlins, bulb tees or metal joist in contact with the new gypsum material with red oxide primer after wire brushing loose scale and rust from the rusted accessory scheduled to remain.

C. Deck Replacement

1. Form Board Surface Preparation: Clean surfaces to receive gypsum of dirt, debris and other foreign materials that would affect bonding. The form board shall be free of standing water, snow, and ice.

    a. Application of New Form Boards and Gypsum Deck: Apply form boards, gypsum slurry and related materials in accordance with respective specifications and manufacturer's instructions, except as modified herein.

2. Confirm that tees and subpurlins have been accurately positioned within 1/16"± of the manufacturer's recommended spacing and are securely fastened.
3. Space form boards evenly between tees. Square cut ends shall fall over supporting purlin members and be driven tightly together.
4. Gypsum Mixing: Mix gypsum materials mechanically to produce a uniform distribution and to meet manufacturer's instructions and design requirements. Place fill the void around the bulb tee completely level with the top of the adjacent surfaces. Excess material shall be scraped off leaving a finished joint flush with the top surface of the roof deck.
5. Curing: Minimize traffic on the surface during the curing period.

3.5 CLEANING AND PROTECTION

A. Provide temporary protective sheeting over uncovered deck surfaces.

B. Turn sheeting up and over parapets and curbing. Retain sheeting in position with weights.

C. Provide for surface drainage from sheeting to existing drainage facilities.

D. Protect top surfaces of deck from damage caused by construction operations.

E. Protect exposed bottom surfaces of deck from soiling and damage during handling and construction.

F. Clean exposed bottom surfaces of completed deck and touch up minor damage to surfaces as approved by Architect.

G. Provide final protection and maintain conditions in a manner acceptable to manufacturer and Installer that ensures that deck is without damage or deterioration at time of Substantial Completion.

H. Remove and replace deteriorated and damaged deck units.

END OF SECTION 035113

SECTION 055000 - METAL FABRICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Metal ladders.

1.3 ACTION SUBMITTALS

A. Product Data: For the following:

1. Nonslip aggregates and nonslip-aggregate surface finishes.
2. Fasteners.

B. Shop Drawings: Show fabrication and installation details. Include plans, elevations, sections, and details of metal fabrications and their connection. Show anchorage and accessory items.

C. Provide Shop Drawings for the following:

1. Metal ladders.

D. Delegated-Design Submittal: For ladders, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For professional engineer's experience with providing delegated-design engineering services of the kind indicated, including documentation that engineer is licensed in the jurisdiction in which Project is located.

B. Welding certificates.

C. Research Reports: For post-installed anchors.

1.5 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel in accordance with the following:

1. AWS D1.1, "Structural Welding Code - Steel."

1.6 FIELD CONDITIONS

A. Field Measurements: Verify actual locations of walls, floor slabs, decks, and other construction contiguous with metal fabrications by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design ladders.

B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on exterior metal fabrications by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 METALS

A. Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.

B. Steel Plates, Shapes, and Bars: ASTM A 36.

C. Steel Tubing: ASTM A 500, cold-formed steel tubing.

D. Steel Pipe: ASTM A 53, Standard Weight (Schedule 40) unless otherwise indicated.

2.3 FASTENERS

A. General: Unless otherwise indicated, provide Type 304 stainless-steel fasteners for exterior use and zinc-plated fasteners with coating complying with ASTM B633 or ASTM F 1941, Class Fe/Zn 5, at exterior walls. Select fasteners for type, grade, and class required.

B. Steel Bolts and Nuts: Regular hexagon-head bolts, ASTM A 307, Grade A; with hex nuts, ASTM A 563; and, where indicated, flat washers.

C. Stainless-Steel Bolts and Nuts: Regular hexagon-head annealed stainless steel bolts, ASTM F 593; with hex nuts, ASTM F 594; and, where indicated, flat washers; Alloy Group 1.

D. Anchor Bolts: ASTM F1554, Grade 36, of dimensions indicated; with nuts, ASTM A 563; and, where indicated, flat washers.

1. Hot-dip galvanize or provide mechanically deposited, zinc coating where item being fastened is indicated to be galvanized.

E. Anchors, General: Capable of sustaining, without failure, a load equal to six (6) times the load imposed when installed in unit masonry and four (4) times the load imposed when installed in concrete, as determined by testing in accordance with ASTM E 488, conducted by a qualified independent testing agency.

F. Post-Installed Anchors: Torque-controlled expansion anchors.

1. Material for Exterior Locations and Where Stainless-Steel Is Indicated: Alloy Group 1 stainless-steel bolts, ASTM F 593, and nuts, ASTM F 594.

2.4 MISCELLANEOUS MATERIALS

A. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.

B. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.

2.5 FABRICATION, GENERAL

A. Shop Assembly: Preassemble items in the shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.

B. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32-inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.

C. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.

D. Form exposed work with accurate angles and surfaces and straight edges.

E. Weld corners and seams continuously to comply with the following:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

F. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners or welds where possible. Where exposed fasteners are required, use Phillips flat-head (countersunk) fasteners unless otherwise indicated. Locate joints where least conspicuous.

G. Fabricate seams and other connections that are exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.

H. Cut, reinforce, drill, and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.

I. Provide for anchorage of type indicated, coordinate with supporting structure. Space anchoring devices to secure metal fabrications rigidly in place and to support indicated loads.

2.6 METAL LADDERS

A. General:

1. Comply with ANSI A14.3.

B. Steel Ladders:

1. Space siderails 18 inches apart unless otherwise indicated.
2. Siderails: Continuous, 1½-inch-diameter steel pipe.

3. Rungs: 1¼ inch-diameter steel bars.
4. Fit rungs in centerline of siderails; plug-weld and grind smooth on outer rail faces.
5. Provide nonslip surfaces on top of each rung, either by coating rung with aluminum-oxide granules set in epoxy-resin adhesive or by using a type of manufactured rung filled with aluminum-oxide grout.
6. Support each ladder at top and bottom and not more than 60 inches o.c. with welded or bolted steel brackets.
7. Galvanize ladders, including brackets.

2.7 GENERAL FINISH REQUIREMENTS

A. Finish metal fabrications after assembly.

B. Finish exposed surfaces to remove tool and die marks and stretch lines, and to blend into surrounding surface.

2.8 STEEL AND IRON FINISHES

A. Galvanizing: Hot-dip galvanize items as indicated to comply with ASTM A 153 for steel and iron hardware and with ASTM A 123 for other steel and iron products.

1. Do not quench or apply post galvanizing treatments that might interfere with paint adhesion.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.

B. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.

C. Field Welding: Comply with the following requirements:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

D. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag screws, wood screws, and other connectors.

3.2 REPAIRS

A. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A 780.

END OF SECTION 055000

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Rooftop equipment bases and support curbs.
2. Wood blocking and nailers.

1.3 DEFINITIONS

A. Boards or Strips: Lumber of less than 2 inches nominal size in least dimension.

B. Lumber grading agencies, and the abbreviations used to reference them, include the following:

1. NeLMA: Northeastern Lumber Manufacturers' Association.
2. NLGA: National Lumber Grades Authority.
3. WCLIB: West Coast Lumber Inspection Bureau.
4. WWPA: Western Wood Products Association.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
2. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

1.5 INFORMATIONAL SUBMITTALS

A. Evaluation Reports: For the following, from ICC-ES:

1. Wood-preservative-treated wood.
2. Power-driven fasteners.
3. Post-installed anchors.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Stack wood products flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.

B. Maximum Moisture Content of Lumber: Fifteen percent (15%) unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED LUMBER

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with the ground, Use Category UC3b for exterior construction not in contact with the ground, and Use Category UC4a for items in contact with the ground.

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

B. Kiln-dry lumber after treatment to a maximum moisture content of fifteen percent (15%). Do not use material that is warped or that does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

D. Application: Treat items indicated on Drawings, and the following:

1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
2. Wood sills, sleepers, blocking, furring, stripping and similar concealed members in contact with masonry or concrete.

2.3 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.

B. Dimension Lumber Items: Standard, Stud, or No. 3 grade lumber of any of the following species:

1. Hem-fir (north); NLGA.
2. Hem-fir; WCLIB or WWPA.
3. Spruce-pine-fir (south); NeLMA, WCLIB, or WWPA.

C. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.

D. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

2.4 FASTENERS

A. General: Fasteners shall be of size and type indicated and shall comply with requirements specified in this article for material and manufacture.

1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of Type 304 stainless-steel.

B. Nails, Brads, and Staples: ASTM F 1667.

C. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

D. Post-Installed Anchors: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01 or ICC-ES AC193 as appropriate for the substrate.

1. Material: Stainless-steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2.

2.5 MISCELLANEOUS MATERIALS

A. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, rubberized-asphalt compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.025-inch.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.

B. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry accurately to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.

C. Do not splice structural members between supports unless otherwise indicated.

D. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.

E. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

F. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

1. Use copper naphthenate for items not continuously protected from liquid water.

G. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.

H. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code (IBC).
2. ICC-ES evaluation report for fastener.

I. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

3.2 WOOD BLOCKING AND NAILER INSTALLATION

A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.

B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.

END OF SECTION 061000

SECTION 070150.19 - PREPARATION FOR REROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Full tear-off of roof system at areas indicated on Drawings.
2. Removal of flashings and counterflashings.

B. Related Requirements:

1. Section 011000 "Summary of Work" for use of the premises and phasing requirements.
2. Section 015000 "Temporary Facilities and Controls" for temporary construction and environmental-protection measures for reroofing preparation.

1.3 DEFINITIONS

A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.

B. Full Roof Tear-Off: Removal of existing roofing system down to existing roof deck.

1.4 PREINSTALLATION MEETINGS

A. Preliminary Roofing Conference: Before starting removal work, conduct conference at Project site.

1. Meet with Owner; Architect; Owner's insurer if applicable; testing and inspecting agency representative; roofing system manufacturer's representative; roofing Installer, including project manager, superintendent, and foreman; and installers whose work interfaces with or affects reroofing, including installers of roof deck, roof accessories, and roof-mounted equipment.
2. Review methods and procedures related to roofing tear-off, including, but not limited to, the following:

a. Reroofing preparation, including roofing system manufacturer's written instructions.
b. Temporary protection requirements for existing roofing system components that are to remain.
c. Existing roof drains and roof drainage during each stage of reroofing, and roof-drain plugging and plug removal.
d. Construction schedule and availability of materials, Installer's personnel, equipment, and facilities needed to avoid delays.
e. Existing roof deck conditions requiring notification of Architect.
f. Existing roof deck removal procedures and Owner notifications.
g. Condition and acceptance of existing roof deck and base flashing substrate for reuse.

h. Structural loading limitations of roof deck during reroofing.
i. Base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that affect reroofing.
j. HVAC shutdown and sealing of air intakes.
k. Shutdown of fire-suppression, -protection, and -alarm and -detection systems.
l. Asbestos removal and discovery of asbestos-containing materials.
m. Governing regulations and requirements for insurance and certificates if applicable.
n. Existing conditions that may require notification of Architect before proceeding.

B. Comply with additional requirements in Section 013100 “Project Management and Coordination”.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

1. Include certificate that Installer is licensed to perform asbestos abatement.

A. Field Test Reports:

1. Fastener pull-out test report.

B. Photographs: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces, that might be misconstrued as having been damaged by reroofing operations.

1. Submit before Work begins.

C. Landfill Records: Indicate receipt and acceptance of demolished roofing materials and hazardous wastes, such as asbestos-containing materials, by a landfill facility licensed to accept them.

1.7 CLOSEOUT SUBMITTALS

A. Certified statement from manufacturer for existing warranted roof system stating that existing roof warranty has not been affected by Work performed under this Section.

1.8 QUALITY ASSURANCE

A. Installer Qualifications: Licensed to perform asbestos abatement in the state or jurisdiction where Project is located.

B. Regulatory Requirements:

1. Comply with governing EPA notification regulations before beginning roofing removal.
2. Comply with hauling and disposal regulations of authorities having jurisdiction.

1.9 FIELD CONDITIONS

A. Existing Roofing System: Modified bitumen roofing and EPDM.

B. Owner will occupy portions of building adjacent to reroofing area.

1. Conduct reroofing so Owner's operations are not disrupted.
2. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.
3. Coordinate work activities daily with Owner so Owner has adequate advance notice to place protective dust and water-leakage covers over sensitive equipment and furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below work area.
4. Before working over structurally impaired areas of deck, notify Owner to evacuate occupants from below affected area.

a. Verify that occupants below work area have been evacuated before proceeding with work over impaired deck area.

C. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.

D. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.

E. Conditions existing at time of inspection for bidding are maintained by Owner as far as practical.

F. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.

1. Remove only as much roofing in one (1) day as can be made watertight in the same day.

G. Hazardous Materials: A report on the presence of hazardous materials is part of the contract documents. Examine report to become aware of locations where hazardous materials are present.

1. Hazardous material remediation is specified elsewhere in the Contract Documents.
2. Do not disturb hazardous materials or items suspected of containing hazardous materials except according to procedures specified elsewhere in the Contract Documents.
3. Coordinate reroofing preparation with hazardous material remediation to prevent water from entering existing roofing system or building.

1.10 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during reroofing, by methods and with materials so as not to void existing roofing system warranty.

1. Notify warrantor before proceeding with the Work.
2. Notify warrantor of existing roofing system on completion of reroofing, and obtain documentation verifying that existing roofing system has been inspected and warranty remains in effect.

a. Submit documentation at Project closeout.

PART 2 - PRODUCTS

2.1 REPLACEMENT MATERIALS

A. Tectum deck is specified in Section 035113 “Cementitious Wood Fiber Decks”.

B. Wood blocking, curbs, and nailers are specified in Section 061000 "Rough Carpentry."

2.2 AUXILIARY REROOFING MATERIALS

A. General: Use auxiliary reroofing preparation materials recommended by roofing system manufacturer for intended use and compatible with components of existing and new roofing system.

PART 3 - EXECUTION

3.1 PREPARATION

A. Seal or isolate windows that may be exposed to airborne substances created in removal of existing materials.

B. Shut off rooftop utilities and service piping before beginning the Work.

C. Test existing roof drains to verify that they are not blocked or restricted.

1. Immediately notify Architect of any blockages or restrictions.

D. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work.

1. Cover air-intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.

E. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.

F. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday.

1. Prevent debris from entering or blocking roof drains and conductors.

a. Use roof-drain plugs specifically designed for this purpose.
b. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.

2. If roof drains are temporarily blocked or unserviceable due to roofing system removal or partial installation of new roofing system, provide alternative drainage method to remove water and eliminate ponding.

a. Do not permit water to enter into or under existing roofing system components that are to remain.

3.2 ROOF TEAR-OFF

A. Notify Owner each day of extent of roof tear-off proposed for that day and obtain authorization to proceed.

B. Lower removed roofing materials to ground and onto lower roof levels, using dust-tight chutes or other acceptable means of removing materials from roof areas.

C. Remove loose aggregate from aggregate-surfaced, built-up bituminous roofing using a power broom.

D. Full Roof Tear-Off: Where indicated on Drawings, remove existing roofing and other roofing system components down to the existing roof deck.

1. Remove substrate board, vapor retarder, underlayment, roof insulation and cover board.
2. Remove base flashings and counter flashings.
3. Remove perimeter edge flashing and gravel stops.
4. Remove copings.
5. Remove flashings at pipes, curbs, mechanical equipment, and other penetrations.
6. Remove roof drains indicated on Drawings to be removed.
7. Remove wood blocking, curbs, and nailers.
8. Bitumen and felts that are firmly bonded to concrete decks are permitted to remain if felts are dry.

    a. Remove unadhered bitumen, unadhered felts, and wet felts.

9. Remove fasteners from deck.

3.3 DECK PREPARATION

A. Inspect deck after tear-off of roofing system.

B. If broken or loose fasteners that secure deck panels to one another or to structure are observed, or if deck appears or feels inadequately attached, immediately notify Architect.

1. Do not proceed with installation until directed by Architect.

C. If deck surface is unsuitable for receiving new roofing or if structural integrity of deck is suspect, immediately notify Architect.

1. Do not proceed with installation until directed by Architect.

D. Provide additional deck securement as recommended by manufacturer.

E. Replace decking as directed by Architect. Deck replacement will be paid for by adjusting the Contract Sum according to unit prices included in the Contract Documents.

3.4 BASE FLASHING REMOVAL

A. Remove existing base flashings.

1. Clean substrates of contaminants, such as asphalt, sheet materials, dirt, and debris.

B. Do not damage metal counterflashings that are to remain.

1. Replace metal counterflashings damaged during removal with counterflashings specified in Section 076200 "Sheet Metal Flashing and Trim."

C. When directed by Architect, replace wood blocking, curbs, and nailers to comply with Section 061000 "Rough Carpentry."

3.5 FASTENER PULL-OUT TESTING

A. Retain independent testing and inspecting agency to conduct fastener pull-out tests according to Chapter 16 of the International Building Code and submit test report to Architect and roofing manufacturer before installing new roofing system.

1. Obtain Architect's and roofing manufacturer's approval to proceed with specified fastening pattern.

a. Architect and roofing manufacturer may furnish revised fastening pattern commensurate with pull-out test results.

3.6 DISPOSAL

A. Collect demolished materials and place in containers.

1. Promptly dispose of demolished materials.
2. Do not allow demolished materials to accumulate on-site.
3. Storage or sale of demolished items or materials on-site is not permitted.

B. Transport and legally dispose of demolished materials off Owner's property.

END OF SECTION 070150.19

SECTION 075216 - STYRENE-BUTADIENE-STYRENE (SBS) MODIFIED BITUMINOUS MEMBRANE ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Styrene-butadiene-styrene (SBS) modified bituminous membrane roofing.
2. Vapor retarder.
3. Roof insulation.
4. Walkways.

B. Related Sections:

1. Section 012300 “Alternates” for work of this Section included in alternates.
2. Section 061000 "Rough Carpentry" for wood nailers, curbs, and blocking, and for wood-based, structural-use roof deck panels.
3. Section 076200 "Sheet Metal Flashing and Trim" for metal roof flashings and counterflashings.
4. Section 077100 "Roof Specialties" for premanufactured roof edge fasciae and gravel stops.
5. Section 077129 "Manufactured Roof Expansion Joints" for proprietary manufactured roof expansion-joint assemblies.
6. Section 079200 "Joint Sealants" for joint sealants, joint fillers, and joint preparation.
7. Section 221423 "Storm Drainage Piping Specialties" for roof drains.

1.3 DEFINITIONS

A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing Manual: Membrane Roof Systems" apply to Work of this Section.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Roofing Conference: Conduct conference at Project site. **Refer to Section 070150.19 “Preparation for Reroofing” for additional items.**

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: Include plans, sections, details, and attachments to other work, including the following:

1. Layout and thickness of insulation.
2. Base flashings and membrane terminations.
3. Flashing details at penetrations.

4. Tapered insulation, including slopes.
5. Roof plan showing orientation of steel roof deck and orientation of roof membrane, fastening spacings, and patterns for mechanically fastened roofing system.
6. Crickets, saddles, and tapered edge strips, including slopes.
7. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.

C. Samples: For the following products:

1. Sheet roofing materials, including roofing membrane base sheet, flashing backer sheet, membrane cap sheet and flashing sheet, of color specified.
2. Roof insulation.
3. Walkway pads or rolls, of color required.
4. Six (6) insulation fasteners of each type, length, and finish.

D. Wind Uplift Resistance Submittal: For roofing system indicating compliance with wind uplift performance requirements.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer, manufacturer, and testing agency.

B. Manufacturer Certificates:

1. Performance Requirement Certificate: Signed by roof membrane manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.

a. Submit evidence of complying with performance requirements.

2. Special Warranty Certificate: Signed by roof membrane manufacturer, certifying that all materials supplied under this Section are acceptable for special warranty.

C. Product Test Reports: For roof membrane and insulation, tests performed by a qualified testing agency, indicating compliance with specified requirements.

D. Evaluation Reports: For components of membrane roofing system, from ICC-ES.

E. Field quality-control reports.

F. Sample Warranties: For manufacturer’s special warranties.

1.7 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roofing system to include in maintenance manuals.

1.8 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer that is UL listed for roofing system identical to that used for this Project.

B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer.

1. Protect stored liquid material from direct sunlight.
2. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources.

1. Store in a dry location.
2. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

1.10 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.11 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.

1. Special warranty is fully inclusive of all membrane roofing, base flashings, roof insulation, fasteners, cover boards, roofing accessories, metal flashings, roof drainage fabrications, and other components of roofing system for an edge-to-edge warranty.
2. Warranty Period: Thirty (30) years, non-prorated, no-dollar-limit, from date of Substantial Completion.

B. Roofing Installer's Warranty: Signed by Installer, in which Installer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Two (2) years from date of Substantial Completion.

C. Provide self-adhesive emblems for each roof hatch, door, or access way, notifying the user of the roof condition, precautionary measures and other conditions of use or maintenance of the roofing membranes.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. CertainTeed Corp.
2. Elevate Building Products, a Holcim company
3. GAF Materials Corporation
4. Garland Company, Inc. (The)
5. Johns Manville, a Berkshire Hathaway company
6. Siplast, Inc.
7. Soprema US
8. Tremco Incorporated
9. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

B. Source Limitations: Obtain components for roofing system from roof membrane manufacturer or manufacturer approved by roof membrane manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing system and flashings shall remain watertight.

1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
2. Impact Resistance: Roofing system shall resist impact damage when tested according to ASTM D 3746 or ASTM D 4272, or the "Resistance to Foot Traffic Test" in FM Approvals 4470.

B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roof membrane manufacturer based on testing and field experience.

C. Roofing System Design: Tested by a qualified testing agency to resist the uplift requirements as indicated on the Drawings.

D. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class C; for application and roof slopes indicated; testing by a qualified testing agency.

1. Identify products with appropriate markings of applicable testing agency.

E. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated.

1. Identify products with appropriate markings of applicable testing agency.

2.3 ROOFING SHEET MATERIALS

A. Roofing Membrane Base Sheet: ASTM D 6163, Grade S, Type I or II, SBS-modified asphalt sheet (reinforced with glass fiber fabric); smooth surfaced; suitable for application method specified.

B. Granule-Surface Roofing Membrane Cap Sheet: ASTM D 6164, Grade G, Type I, SBS-modified asphalt sheet (reinforced with polyester fabric); granular surfaced; suitable for application method specified, and as follows:

1. Sheet Color: White
2. Granule Color: White.

2.4 BASE FLASHING SHEET MATERIALS

A. Backer Sheet: ASTM D 6163, Grade S, Type I or II, SBS-modified asphalt sheet (reinforced with glass fiber fabric) smooth surfaced; suitable for application method specified.

B. Granule-Surfaced Flashing Sheet: ASTM D 6164, Grade G, Type I, SBS-modified asphalt sheet (reinforced with polyester fabric) granular surfaced; suitable for application method specified, and as follows:

1. Sheet Color: White.
2. Granule Color: As selected by Architect and Owner from manufacturer's entire range, to match cap sheet.

2.5 ACCESSORY ROOFING MATERIALS

A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing membrane.

1. Adhesives and Sealants: Comply with VOC limits of authorities having jurisdiction.

B. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer.

C. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1-by-1/8-inch-thick; with anchors.

D. Cold-Applied Asphalt Adhesive: ASTM D 3019, Type III, roof membrane manufacturer's standard asphalt-based, one- or two-part, asbestos-free, cold-applied adhesive, specially formulated for compatibility and use with roofing membrane and base flashings.

E. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required by roofing system manufacturer for application.

F. Mastic Sealant: Polyisobutylene, plain or modified bitumen; nonhardening, nonmigrating, non-skinning, and nondrying.

G. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roofing components to substrate; tested by manufacturer for required pullout strength, and acceptable to roofing system manufacturer.

H. Roofing Granules: Ceramic-coated roofing granules, No. 11 screen size with one hundred percent (100%) passing No. 8 sieve and ninety-eight percent (98%) of mass retained on No. 40 sieve, color to match roofing membrane.

I. Miscellaneous Accessories: Provide those recommended by roofing system manufacturer.

J. Penetration Flashing: Two-part, liquid-applied flashing material that cures to a durable, elastomeric film. Flashing system consists of primer, flashing cement, and polyester scrim.

1. System must be compatible with roofing membrane system and be part of the warranty.

2.6 VAPOR RETARDER

A. Rubberized-Asphalt-Sheet Vapor Retarder, Self-Adhering: ASTM D 1970 polyethylene film laminated to layer of rubberized asphalt adhesive, minimum 40-mil total thickness; maximum permeance rating of 0.1 perm; cold applied, with slip-resisting surface and release paper backing. Provide primer when recommended by vapor-retarder manufacturer.

2.7 ROOF INSULATION

A. General: Preformed roof insulation boards manufactured or approved by roof membrane manufacturer.

B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 3, felt or glass-fiber mat facer on both major surfaces.

1. Compressive Strength: 25 psi.

C. Perlite Board Insulation: ASTM C 728, Type 1, rigid, mineral-aggregate thermal insulation board composed of expanded perlite, cellulosic fibers, binders, and waterproofing agents with top surface seal coated.

D. Tapered Insulation: Provide factory-tapered insulation boards.

1. Material: Match roof insulation.
2. Minimum Thickness: ¼-inch.
3. Slope:

a. Roof Field: ¼-inch per foot unless otherwise indicated on Drawings.
b. Saddles and Crickets: ½-inch per foot unless otherwise indicated on Drawings.

2.8 INSULATION ACCESSORIES AND COVER BOARD

A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with roofing.

B. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation to substrate, and acceptable to roofing system manufacturer.

C. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:

1. Modified asphaltic, asbestos-free, cold-applied adhesive.

D. Insulation Adhesive (Decks Exposed from Below): Two-component, polyurethane construction grade, low-rise expanding.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. OMG, Inc.; **OlyBond 500 Spot Shot**
b. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

E. Insulation Cant Strips: ASTM C 728, perlite insulation board.

F. Wood Nailer Strips: Comply with requirements in Section 061000 "Rough Carpentry."

G. Tapered Edge Strips: ASTM C 728, perlite insulation board.

H. Cover Board: ASTM C 1289, Type II, Class 4, Grade 2, polyisocyanurate board substrate with glass-fiber mat facer on both major surfaces.

2.9 WALKWAYS

A. Walkway Pads: Reinforced asphaltic composition pads with slip-resisting mineral-granule surface, manufactured as a traffic pad for foot traffic and acceptable to roofing system manufacturer, 3/8-inch-thick, minimum.

1. Pad Size: Manufacturer's standard.
2. Color: In contrasting color of roofing membrane.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work:

1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof-drain bodies are securely clamped in place.
2. Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
3. Verify that any damaged sections of cementitious wood-fiber decks have been repaired or replaced.
4. Verify that adjacent cementitious wood-fiber panels are vertically aligned to within 1/8-inch at top surface.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation in accordance with roofing system manufacturer's written instructions.

1. Remove sharp projections.

B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction.

1. Remove roof-drain plugs when no work is taking place or when rain is forecast.

C. Perform fastener-pullout tests according to roof system manufacturer's recommendations.

1. Submit test result within 24 hours of performing tests.

a. Include manufacturer's requirements for any revision to previously submitted fastener patterns required to achieve specified wind uplift requirements.

3.3 INSTALLATION, GENERAL

A. Install roofing system according to roofing system manufacturer's written instructions.

B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast.

1. Remove and discard temporary seals before beginning work on adjoining roofing.

C. Substrate-Joint Penetrations: Prevent roofing adhesives from penetrating substrate joints, entering building, or damaging roofing system components or adjacent building construction.

3.4 INSTALLATION OF VAPOR RETARDER

A. Self-Adhering-Sheet Vapor Retarder: Prime substrate if required by manufacturer. Install self-adhering-sheet vapor retarder over area to receive vapor retarder, side and end lapping each sheet a minimum of 3½ and 6 inches, respectively.

1. Extend vertically up parapet walls and projections to a minimum height equal to height of the insulation and cover board.
2. Seal laps by rolling.

B. Completely seal vapor retarder at terminations, obstructions, and penetrations to prevent air movement into roofing system.

3.5 INSULATION INSTALLATION

A. Coordinate installation of roofing system components, so insulation is not exposed to precipitation or left exposed at the end of the workday.

B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.

C. Nailer Strips: Mechanically fasten 4-inch nominal-width wood nailer strips of same thickness as insulation perpendicular to sloped roof deck at the following spacing:

1. 48 inches apart for roof slopes greater than 3 inches per 12 inches (3:12).

D. Insulation Cant Strips: Install and secure preformed 45-degree insulation cant strips at junctures of roofing membrane system with vertical surfaces or angle changes more than 45 degrees.

E. Install tapered insulation under area of roofing to conform to slopes indicated.

F. Install insulation boards with long joints in a continuous straight line with end joints staggered between rows, abutting edges, and ends between boards. Fill gaps exceeding ¼-inch with insulation.

1. Cut and fit insulation within ¼-inch of nailers, projections, and penetrations.

G. Install insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2.7 inches or more, install two (2) or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches in each direction.

1. Where installing composite and non-composite insulation in two (2) or more layers, install non-composite board insulation for bottom layer and intermediate layers, if applicable, and install composite board insulation for top layer.

H. Trim surface of insulation boards where necessary at roof drains so completed surface is flush and does not restrict flow of water.

I. Install tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.

J. Adhered Insulation: Install each layer of insulation and adhere to substrate as follows:

1. Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing, and maintaining insulation in place.

K. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints a minimum of 6 inches in each direction from joints of insulation below. Loosely butt cover boards together. Tape joints if required by roofing system manufacturer.

1. Set in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

3.6 ROOFING MEMBRANE INSTALLATION, GENERAL

A. Install roofing system according to roofing system manufacturer's written instructions and applicable recommendations in ARMA/NRCA's "Quality Control Guidelines for the Application of Polymer Modified Bitumen Roofing".

B. Start installation of roofing membrane in presence of roofing system manufacturer's technical personnel.

C. Where roof slope exceeds ¾-inch per 12 inches (1:18), install roofing membrane sheets parallel with slope.

1. Backnail roofing sheets to nailer strips according to roofing system manufacturer's written instructions.

D. Coordinate installation of roofing system so insulation and other components of the roofing system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is forecast.

1. Provide tie-offs at end of each day’s work to cover exposed roofing sheets and insulation with a course of coated felt set in roofing cement, with joints and edges sealed.
2. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system.
3. Remove and discard temporary seals before beginning work on adjoining roofing.

3.7 SBS-MODIFIED BITUMINOUS MEMBRANE INSTALLATION

A. Install modified bituminous roofing membrane base sheet and cap sheet according to roofing manufacturer's written instructions, starting at low point of roofing system. Extend roofing membrane sheets over and terminate beyond cants, installing in one (1) of the following ways:

1. Adhere to substrate in a uniform coating of cold-applied adhesive.

2. Unroll roofing membrane sheets and allow them to relax for minimum time period required by manufacturer.

B. Laps: Accurately align roofing membrane sheets, without stretching, and maintain uniform side and end laps. Stagger end laps. Completely bond and seal laps, leaving no voids.

1. Repair tears and voids in laps and lapped seams not completely sealed.

C. Install roofing sheets so side and end laps shed water.

3.8 FLASHING AND STRIPPING INSTALLATION

A. Install base flashing over cant strips and other sloped and vertical surfaces, at roof edges, and at penetrations through roof, and secure to substrates according to roofing system manufacturer's written instructions, and as follows:

1. Prime substrates with asphalt primer if required by roofing system manufacturer.
2. Backer Sheet Application:

a. Adhere backer sheet over roofing membrane at cants in cold-applied adhesive.

3. Flashing Sheet Application: Adhere flashing sheet to substrate in cold-applied adhesive at rate required by roofing system manufacturer.

B. Extend base flashing up walls or parapets a minimum of 8 inches above roofing membrane and 4 inches onto field of roofing membrane.

C. Mechanically fasten top of base flashing securely at terminations and perimeter of roofing.

1. Seal top termination of base flashing.

D. Penetration Flashing: Tape off area to be flashed. Prime protrusion with system approved primer. Apply system base coat. While tacky, embed system polyester scrim. Apply system topcoat. Remove masking tape.

E. Install roofing cap-sheet stripping where metal flanges and edgings are set on roofing according to roofing system manufacturer's written instructions.

F. Roof Drains: Set 30-by-30-inch 4-pound metal flashing in bed of asphaltic adhesive on completed roofing membrane.

1. Cover metal flashing with roofing cap-sheet stripping and extend a minimum of 6 inches beyond edge of metal flashing onto field of roofing membrane.
2. Clamp roofing membrane, metal flashing, and stripping into roof-drain clamping ring.
3. Install stripping according to roofing system manufacturer's written instructions.

3.9 WALKWAY INSTALLATION

A. Walkway Pads: Install walkway pads using units of size indicated or, if not indicated, of manufacturer's standard size according to walkway pad manufacturer's written instructions.

1. Adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

3.10 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified testing agency to inspect substrate conditions, surface preparation, membrane application, flashings, protection, and drainage components, and to furnish reports to Architect.

B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.

1. Notify Architect and Owner 48 hours in advance of date and time of inspection.

C. Roofing system will be considered defective if it does not pass tests and inspections.

1. Additional testing and inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements.

3.11 PROTECTING AND CLEANING

A. Protect roofing system from damage and wear during remainder of construction period.

1. When remaining construction does not affect or endanger roofing, inspect roofing system for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.

B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.

END OF SECTION 075216

SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Formed roof-drainage sheet metal fabrications.
2. Formed low-slope roof sheet metal fabrications.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wood nailers, curbs, and blocking.
2. Section 077200 "Roof Accessories" for equipment supports, roof hatches, vents, and other manufactured roof accessory units.

1.3 COORDINATION

A. Coordinate sheet metal flashing and trim layout and seams with sizes and locations of penetrations to be flashed, and joints and seams in adjacent materials.

B. Coordinate sheet metal flashing and trim installation with adjoining roofing and wall materials, joints, and seams to provide leak-proof, secure, and noncorrosive installation.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.

B. Shop Drawings: For sheet metal flashing and trim.

1. Include plans, elevations, sections, and attachment details.
2. Detail fabrication and installation layouts, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work.
3. Include identification of material, thickness, weight, and finish for each item and location in Project.
4. Include details for forming, including profiles, shapes, seams, and dimensions.
5. Include details for joining, supporting, and securing, including layout and spacing of fasteners, cleats, clips, and other attachments. Include pattern of seams.
6. Include details of termination points and assemblies.
7. Include details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction from fixed points.
8. Include details of roof-penetration flashing.
9. Include details of special conditions.
10. Include details of connections to adjoining work.

11. Detail formed flashing and trim at scale of not less than 3 inches per 12 inches (1:5).

C. Samples: For each type of sheet metal and accessory indicated with factory-applied finishes.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For fabricator.

B. Product Test Reports: For each product, for tests performed by a qualified testing agency.

C. Sample Warranty: For special warranty.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For sheet metal flashing and trim, and its accessories, to include in maintenance manuals.

1.7 QUALITY ASSURANCE

A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.

B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal flashing and trim installation.

1.9 WARRANTY

A. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.

1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:

a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: Twenty (20) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to

defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.

B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.

C. Wind Design Standard: Manufacture and install roof edge flashings tested according to Chapter 16 of the International Building Code and capable of resisting the following design pressure:

1. Design Pressure: As indicated on Drawings.

D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

2.2 SHEET METALS

A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.

B. Aluminum Sheet: ASTM B 209, alloy as standard with manufacturer for finish required, with temper as required to suit forming operations and performance required; with smooth, flat surface.

1. Exposed Coil-Coated Finish:

a. Two-Coat Fluoropolymer: AAMA 620. Fluoropolymer finish containing not less than seventy percent (70%) PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

2. Color: As selected by Architect and Owner from manufacturer's full range, to match existing.

2.3 UNDERLAYMENT MATERIALS

A. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt; nonperforated.

B. Slip Sheet: Rosin-sized building paper, 3 lb./100 sq. ft. minimum.

2.4 MISCELLANEOUS MATERIALS

A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal unless otherwise indicated.

B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal.

1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.

    a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
    b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.

2. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless-steel.

C. Sealant Tape: Pressure-sensitive, one hundred percent (100%) solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, non-sag, nontoxic, non-staining tape ½-inch-wide and 1/8-inch-thick.

D. Elastomeric Sealant: ASTM C 920, elastomeric polysulfide polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.

E. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.

F. Bituminous Coating: Cold-applied asphalt emulsion according to ASTM D 1187.

G. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

H. Downspout Boots: Of material and profile to align with and connect to storm water pipe riser.

2.5 FABRICATION, GENERAL

A. General: Custom fabricate sheet metal flashing and trim to comply with details shown and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required. Fabricate sheet metal flashing and trim in shop to greatest extent possible.

1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
2. Obtain field measurements for accurate fit before shop fabrication.
3. Form sheet metal flashing and trim to fit substrates without excessive oil canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
4. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.

B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of ¼-inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

C. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.

1. Form expansion joints of intermeshing hooked flanges, not less than 1-inch-deep, filled with butyl sealant concealed within joints.
2. Use lapped expansion joints only where indicated on Drawings.

D. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal to provide for proper installation of elastomeric sealant according to cited sheet metal standard.

E. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.

F. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard for application, but not less than thickness of metal being secured.

G. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use.

H. Do not use graphite pencils to mark metal surfaces.

2.6 ROOF-DRAINAGE SHEET METAL FABRICATIONS

A. Hanging Gutters: Fabricate to cross section required, complete with end pieces, outlet tubes, and other accessories as required. Fabricate in minimum 96-inch-long sections. Furnish flat-stock gutter brackets and twisted gutter spacers and straps fabricated from same metal as gutters, of size recommended by cited sheet metal standard but with thickness not less than twice the gutter thickness. Fabricate expansion joints, expansion-joint covers, and gutter accessories from same metal as gutters.

1. Gutter Profile: As indicated on Drawings.
2. Expansion Joints: Lap type.
3. Fabricate from the following materials:

a. Aluminum: 0.050-inch-thick.

A. Downspouts: Fabricate downspouts in profile and dimensions to match existing, complete with mitered elbows. Furnish with metal hangers from same material as downspouts and anchors. Shop fabricate elbows.

1. Fabricate from the following materials:

a. Aluminum: 0.040-inch-thick.

B. Collection Boxes: Fabricate conductor heads with flanged back and stiffened top edge and of dimensions and shape required, complete with outlet tubes, exterior flange trim, and built-in overflows. Fabricate from the following materials:

1. Aluminum: 0.032-inch-thick.

C. Parapet Scuppers: Fabricate scuppers to dimensions required, with closure flange trim to exterior, 4-inch-wide wall flanges to interior, and base extending 4 inches beyond cant or tapered strip into field of roof. Fabricate from the following materials:

1. Aluminum: 0.032-inch-thick.

2.7 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

A. Roof Fasciae and Other Exposed Flashings: Fabricate in minimum 96-inch-long, but not exceeding 12-foot-long sections. Furnish with 6-inch-wide, joint cover plates.

1. Joint Style: Overlapped, 4 inches wide.

2. Fabricate from the following materials:

    a. Aluminum: 0.050-inch-thick.

B. Base Flashing: Fabricate from the following materials:

1. Aluminum: 0.040-inch-thick.

C. Counterflashing: Shop fabricate interior and exterior corners. Fabricate from the following materials:

1. Aluminum: 0.032-inch-thick.

D. Reglets: Units of type, material, and profile required, formed to provide secure interlocking of separate reglet and counterflashing pieces, and compatible with flashing indicated with factory-mitered and -welded corners and junctions.

1. Aluminum: 0.024-inch-thick.
2. Masonry Type: Provide with offset top flange for embedment in masonry mortar joint.
3. Accessories:

    a. Counterflashing Wind-Restraint Clips: Provide clips to be installed before counterflashing to prevent wind uplift of counterflashing's lower edge.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, substrate, and other conditions affecting performance of the Work.

1. Verify compliance with requirements for installation tolerances of substrates.
2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

A. Felt Underlayment: Install felt underlayment, wrinkle free, using adhesive to minimize use of mechanical fasteners under sheet metal flashing and trim. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.

B. Apply slip sheet, wrinkle free, directly on substrate before installing sheet metal flashing and trim.

3.3 INSTALLATION, GENERAL

A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.

1. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
3. Space cleats not more than 12 inches apart. Attach each cleat with at least two (2) fasteners. Bend tabs over fasteners.
4. Install exposed sheet metal flashing and trim with limited oil canning, and free of buckling and tool marks.
5. Torch cutting of sheet metal flashing and trim is not permitted.
6. Do not use graphite pencils to mark metal surfaces.

B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.

1. Coat concealed side of sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.

C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of 10 feet with no joints within 24 inches of corner or intersection.

1. Form expansion joints of intermeshing hooked flanges, not less than 1-inch-deep, filled with sealant concealed within joints.
2. Use lapped expansion joints only where indicated on Drawings.

D. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1¼ inches for nails and not less than ¾ inch for wood screws.

E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

F. Seal joints as required for watertight construction.

1. Use sealant-filled joints unless otherwise indicated. Embed hooked flanges of joint members not less than 1-inch into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is between 40 and 70 deg F (4 and 21 deg C), set joint members for fifty percent (50%) movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F (4 deg C).
2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."

G. Rivets: Rivet joints in uncoated aluminum and zinc where indicated and where necessary for strength.

3.4 ROOF-DRAINAGE SYSTEM INSTALLATION

A. General: Install sheet metal roof-drainage items to produce complete roof-drainage system according to cited sheet metal standard unless otherwise indicated. Coordinate installation of roof perimeter flashing with installation of roof-drainage system.

B. Hanging Gutters: Join sections with soldered joints. Provide for thermal expansion. Attach gutters at eave or fascia to firmly anchor them in position. Provide end closures and seal watertight with sealant. Slope to downspouts.

1. Fasten gutter spacers to front and back of gutter.
2. Anchor and loosely lock back edge of gutter to continuous eave or apron flashing.
3. Anchor gutter with gutter brackets spaced not more than 24 inches apart to roof deck, unless otherwise indicated, and loosely lock to front gutter bead.

C. Downspouts: Join sections with 1½ inch telescoping joints.

1. Provide hangers with fasteners designed to hold downspouts securely to walls. Locate hangers at existing locations minimum, but at top and bottom and at approximately 60 inches o.c.
2. Provide elbows at base of exposed downspout onto concrete splash blocks to direct water away from building.
3. Connect downspouts to underground drainage system where available.

D. Collection Boxes: Anchor securely to wall, with elevation of conductor head rim at minimum of 1-inch below scupper discharge.

E. Parapet Scuppers: Continuously support scupper, set to correct elevation, and seal flanges to interior wall face, over cants or tapered edge strips, and under roofing membrane.

1. Anchor scupper closure trim flange to exterior wall and seal with elastomeric sealant to scupper.

F. Expansion-Joint Covers: Install expansion-joint covers at locations and of configuration indicated. Lap joints minimum of 4 inches in direction of water flow.

3.5 ROOF FLASHING INSTALLATION

A. General: Install sheet metal flashing and trim to comply with performance requirements and cited sheet metal standard. Provide concealed fasteners where possible, and set units true to line, levels, and slopes. Install work with laps, joints, and seams that are permanently watertight and weather resistant.

B. Fasciae and Other Exposed Flashings: Anchor to resist uplift and outward forces according to recommendations in cited sheet metal standard unless otherwise indicated. Interlock bottom edge of roof edge flashing with continuous cleat anchored to substrate at staggered 3-inch centers.

C. Pipe or Post Counterflashing: Install counterflashing umbrella with close-fitting collar with top edge flared for elastomeric sealant, extending minimum of 4 inches over base flashing. Install stainless-steel draw band and tighten.

D. Counterflashing: Coordinate installation of counterflashing with installation of base flashing. Insert counterflashing in reglets or receivers and fit tightly to base flashing. Extend counterflashing 4 inches over base flashing. Lap counterflashing joints minimum of 4 inches and bed in sealant. Secure in waterproof manner by means of interlocking folded seam or blind rivets and sealant unless otherwise indicated.Counterflashing: End counterflashing at termination bars as indicated on Drawings. Seal termination bar with sealant as specified in Section 079200 “Sealants”.

F. Roof-Penetration Flashing: Coordinate installation of roof-penetration flashing with installation of roofing and other items penetrating roof. Seal with elastomeric sealant and clamp flashing to pipes that penetrate roof.

3.6 ERECTION TOLERANCES

A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of ¼-inch in 20 feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.7 CLEANING AND PROTECTION

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Clean off excess sealants.

C. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of sheet metal flashing and trim installation, remove unused materials and clean finished surfaces as recommended by sheet metal flashing and trim manufacturer. Maintain sheet metal flashing and trim in clean condition during construction.

D. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 076200

SECTION 077100 - ROOF SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Roof-edge specialties.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wood nailers, curbs, and blocking.
2. Section 076200 "Sheet Metal Flashing and Trim" for custom- and site-fabricated sheet metal flashing and trim.
3. Section 077200 "Roof Accessories" for set-on-type curbs, equipment supports, vents, and other manufactured roof accessory units.
4. Section 079200 "Joint Sealants" for field-applied sealants between roof specialties and adjacent materials.

C. Preinstallation Conference: Conduct conference at Project site.

1. Meet with Owner, Architect, Owner's insurer if applicable, roofing-system testing and inspecting agency representative, roofing Installer, roofing-system manufacturer's representative, Installer, structural-support Installer, and installers whose work interfaces with or affects roof specialties, including installers of roofing materials and accessories.
2. Examine substrate conditions for compliance with requirements, including flatness and attachment to structural members.
3. Review special roof details, roof drainage, and condition of other construction that will affect roof specialties.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: For roof specialties.

1. Include plans, elevations, expansion-joint locations, keyed details, and attachments to other work. Distinguish between plant- and field-assembled work.
2. Include details for expansion and contraction; locations of expansion joints, including direction of expansion and contraction.
3. Indicate profile and pattern of seams and layout of fasteners, cleats, clips, and other attachments.
4. Detail termination points and assemblies, including fixed points.
5. Include details of special conditions.

C. Samples: For each type of roof specialty and for each color and texture specified.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For manufacturer.

B. Product Test Reports: For roof-edge flashings, for tests performed by a qualified testing agency.

C. Sample Warranty: For manufacturer's special warranty.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roofing specialties to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer offering products meeting requirements that are tested to specified design pressure.

B. Source Limitations: Obtain roof specialties approved by manufacturer providing roofing-system warranty specified in Section 075216 “Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing”.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Do not store roof specialties in contact with other materials that might cause staining, denting, or other surface damage. Store roof specialties away from uncured concrete and masonry.

B. Protect strippable protective covering on roof specialties from exposure to sunlight and high humidity, except to extent necessary for the period of roof-specialty installation.

1.8 FIELD CONDITIONS

A. Field Measurements: Verify profiles and tolerances of roof-specialty substrates by field measurements before fabrication and indicate measurements on Shop Drawings.

B. Coordination: Coordinate roof specialties with flashing, trim, and construction of parapets, roof deck, roof and wall panels, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.9 WARRANTY

A. Roofing-System Warranty: Roof specialties are included in warranty provisions in Section 075216 “Styrene-Butadiene-Styrene (SBS) Modified Bituminous Membrane Roofing”.

B. Special Warranty on Painted Finishes: Manufacturer agrees to repair finish or replace roof specialties that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Fluoropolymer Finish: Deterioration includes, but is not limited to, the following:

a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: Twenty (20) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General Performance: Roof specialties shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

B. Wind Design Standard: Manufacture and install copings and roof-edge specialties tested according to Chapter 16 of the International Building Code and capable of resisting the following design pressures:

1. Design Pressure: As indicated on Drawings.

C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of thermal movements. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

2.2 ROOF-EDGE SPECIALTIES

A. Roof-Edge Fascia: Manufactured, two-piece, roof-edge fascia consisting of snap-on metal fascia cover in section lengths not exceeding 12 feet and a continuous metal receiver with integral drip-edge cleat to engage fascia cover and secure single-ply roof membrane. Provide matching corner units.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Elevate Building Products, a Holcim company
b. Johns Manville
c. Perimeter Systems; a division of Southern Aluminum Finishing Company, Inc.
d. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Formed Aluminum Sheet Fascia Covers: Aluminum sheet, minimum 0.050-inch-thick but thickness as required to meet performance requirements.

a. Surface: Smooth, flat finish.
b. Finish: Two-coat fluoropolymer.
c. Color: As selected by Architect and Owner from manufacturer's entire range, to match existing.

3. Corners: Factory mitered and continuously welded.
4. Splice Plates: Concealed, of same material, finish, and shape as fascia cover.
5. Receiver: Manufacturer's standard material and thickness.

B. Metal Copings: Manufactured coping system consisting of metal coping cap in section lengths not exceeding 12 feet, concealed anchorage; with corner units, end cap units, and concealed splice plates with finish matching coping caps.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Elevate Building Products, a Holcim company
b. Johns Manville
c. Perimeter Systems; a division of Southern Aluminum Finishing Company, Inc.
d. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Formed Aluminum Sheet Coping Caps: Aluminum sheet, 0.050-inch-thick.

a. Surface: Smooth, flat finish.
b. Finish: Two-coat fluoropolymer.
c. Color: As selected by Architect and Owner from manufacturer's full range, to match existing.

2.3 MATERIALS

A. Aluminum Sheet: ASTM B 209 alloy as standard with manufacturer for finish required, with temper to suit forming operations and performance required.

2.4 UNDERLAYMENT MATERIALS

A. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, non-perforated.

B. Slip Sheet: Rosin-sized building paper, 3-lb./100 sq. ft. minimum.

2.5 MISCELLANEOUS MATERIALS

A. Fasteners: Manufacturer's recommended fasteners, suitable for application and designed to meet performance requirements. Furnish the following unless otherwise indicated:

1. Exposed Penetrating Fasteners: Gasketed screws with hex washer heads matching color of sheet metal.
2. Fasteners for Aluminum: Aluminum or Series 300 stainless-steel.

B. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane polymer sealant of type, grade, class, and use classifications required by roofing-specialty manufacturer for each application.

C. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type joints with limited movement.

D. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.

E. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.6 FINISHES

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

D. Coil-Coated Aluminum Sheet Finishes:

1. High-Performance Organic Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

a. Two-Coat Fluoropolymer: AAMA 2605. Fluoropolymer finish containing not less than seventy percent (70%) PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
b. Concealed Surface Finish: Apply pretreatment and manufacturer's standard acrylic or polyester backer finish consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.

B. Examine walls, roof edges, and parapets for suitable conditions for roof specialties.

C. Verify that substrate is sound, dry, smooth, clean, sloped for drainage where applicable, and securely anchored.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

A. Felt Underlayment: Install with adhesive for temporary anchorage to minimize use of mechanical fasteners under roof specialties. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.

B. Slip Sheet: Install with tape or adhesive for temporary anchorage to minimize use of mechanical fasteners under roof specialties. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.

3.3 INSTALLATION, GENERAL

A. General: Install roof specialties according to manufacturer's written instructions. Anchor roof specialties securely in place, with provisions for thermal and structural movement. Use fasteners, protective coatings, separators, underlayments, sealants, and other miscellaneous items as required to complete roof-specialty systems.

1. Install roof specialties level, plumb, true to line and elevation; with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.
2. Provide uniform, neat seams with minimum exposure of sealant.

3. Install roof specialties to fit substrates and to result in weathertight performance. Verify shapes and dimensions of surfaces to be covered before manufacture.
4. Torch cutting of roof specialties is not permitted.
5. Do not use graphite pencils to mark metal surfaces.

B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

1. Coat concealed side of uncoated aluminum roof specialties with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
2. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof specialties for waterproof performance.

C. Expansion Provisions: Allow for thermal expansion of exposed roof specialties.

1. Space movement joints at a maximum of 12 feet with no joints within 18 inches of corners or intersections unless otherwise indicated on Drawings.
2. When ambient temperature at time of installation is between 40 and 70 deg F (4 and 21 deg C), set joint members for fifty percent (50%) movement each way. Adjust setting proportionately for installation at higher ambient temperatures.

D. Fastener Sizes: Use fasteners of sizes that penetrate wood blocking or sheathing not less than 1¼ inches for nails and not less than ¾ inch for wood screws.

E. Seal concealed joints with butyl sealant as required by roofing-specialty manufacturer.

F. Seal joints as required for weathertight construction. Place sealant to be completely concealed in joint. Do not install sealants at temperatures below 40 deg F (4 deg C).

3.4 ROOF-EDGE SPECIALTIES INSTALLATION

A. Install cleats, cants, and other anchoring and attachment accessories and devices with concealed fasteners.

B. Anchor roof edgings with manufacturer's required devices, fasteners, and fastener spacing to meet performance requirements.

C. Anchor copings with manufacturer's required devices, fasteners, and fastener spacing to meet performance requirements.

1. Interlock face and back leg drip edges of snap-on coping cap into cleated anchor plates anchored to substrate at manufacturer's required spacing that meets performance requirements.

3.5 CLEANING AND PROTECTION

A. Clean off excess sealants.

B. Remove temporary protective coverings and strippable films as roof specialties are installed. On completion of installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain roof specialties in a clean condition during construction.

C. Replace roof specialties that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 077100

SECTION 077129 - MANUFACTURED ROOF EXPANSION JOINTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Bellows-type roof expansion joints.

B. Related Requirements:

1. Section 061000 "Rough Carpentry" for wooden curbs or cants for mounting roof expansion joints.
2. Section 076200 "Sheet Metal Flashing and Trim" for shop- and field-fabricated sheet metal expansion-joint systems, flashing, and other sheet metal items.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For roof expansion joints.

1. Include plans, elevations, sections, and attachment details.
2. Include details of splices, intersections, transitions, fittings, method of field assembly, and location and size of each field splice.
3. Provide isometric drawings of intersections, terminations, and changes in joint direction or planes, depicting how components interconnect with each other and adjacent construction to allow movement and achieve waterproof continuity.

C. Samples: For each exposed product and for each color specified, 6 inches in size.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Test Reports: For each fire-barrier provided as part of a roof-expansion-joint assembly, for tests performed by a qualified testing agency.

C. Sample Warranties: For special warranties.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Installer of roofing membrane.

1.6 WARRANTY

A. Special Warranty: Manufacturer and Installer agree to repair or replace roof expansion joints and components that leak, deteriorate beyond normal weathering, or otherwise fail in materials or workmanship within specified warranty period.

1. Warranty Period: Two (2) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General: Roof expansion joints shall withstand exposure to weather, remain watertight, and resist the movements indicated without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, overstressing of components, failure of joint seals, failure of connections, and other detrimental effects.

1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

C. Fire-Test-Response Characteristics: Provide fire-barrier assemblies with fire-test-response characteristics as determined by testing identical products, per test method indicated, by UL or another testing agency acceptable to authorities having jurisdiction. Assemblies shall be capable of anticipated movement while maintaining fire rating. Fire-barrier products shall bear classification marking of qualified testing agency.

2.2 BELLOWS-TYPE ROOF EXPANSION JOINTS

A. Source Limitations: Obtain bellows-type roof expansion joints approved by roofing manufacturer and that are part of roofing membrane warranty.

B. Flanged Bellows Roof Expansion Joint: Manufactured, continuous, waterproof, joint-cover assembly, consisting of exposed membrane bellows, laminated to flexible, closed-cell support foam, and secured along each edge to a 3- to 4-inch-wide metal flange for nailing to substrate. Provide each size and type indicated, factory-fabricated units for corner and joint intersections and horizontal and vertical transitions including those to other building expansion joints, splicing units, adhesives, and other components as recommended by roof-expansion-joint manufacturer for complete installation. Fabricate each assembly specifically for installation configuration indicated on Drawings.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Johns Manville; **Expand-O-Flash**
b. JointMaster, a division of InPro Corporation; **672**
c. MM Systems Corporation; **Series ERFL**
d. Substitutions: Under provision of Section 012500 “Substitution Procedures”.

2. Joint Movement Capability: Plus and minus fifty percent (+/-50%) of joint size.

3. Bellows: Neoprene flexible membrane, nominal 60 mils thick.

   a. Color: Black.

4. Flanges: Aluminum, 0.032-inch-thick.

   a. Form: As indicated on Drawings.
   b. Mortar Flanges: Where flanges will be embedded in concrete or mortar, provide perforated-metal mortar flanges.

5. Fire Barrier: Manufacturer's standard fire-resistive joint system with ratings determined per ASTM E 119 to resist spread of fire and to accommodate building thermal movements without impairing its ability to resist the passage of fire and hot gases.

   a. Fire-Resistance Rating: Not less than 2-hour.

2.3 MATERIALS

A. Aluminum: ASTM B 209 for sheet and plate, ASTM B 221 for extrusions; alloy as standard with manufacturer for finish required, with temper to suit forming operations and performance required.

   1. Apply manufacturer's standard protective coating on aluminum surfaces to be placed in contact with cementitious or preservative-treated wood materials.
   2. Mill Finish: As manufactured.

B. Neoprene Membrane: Neoprene sheet recommended by EPDM manufacturer for resistance to hydrocarbons, non-aromatic solvents, grease, and oil; and as standard with roof-expansion-joint manufacturer for application.

C. Adhesives: As recommended by roof-expansion-joint manufacturer and with a VOC content of 70 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

D. Fasteners: Manufacturer's recommended fasteners, suitable for application and designed to withstand design loads.

   1. Exposed Fasteners: Gasketed. Use screws with hex washer heads matching color of material being fastened.

E. Mineral-Fiber Blanket: ASTM C 665.

F. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.

B. Examine roof-joint openings, inside surfaces of parapets, and expansion-control joint systems that interface with roof expansion joints, for suitable conditions where roof expansion joints will be installed.

C. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Comply with manufacturer's written instructions for handling and installing roof expansion joints.

1. Anchor roof expansion joints securely in place, with provisions for required movement. Use fasteners, protective coatings, sealants, and miscellaneous items as required to complete roof expansion joints.
2. Install roof expansion joints true to line and elevation; with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.
3. Provide for linear thermal expansion of roof expansion joint materials.
4. Provide uniform profile of roof expansion joint throughout its length; do not stretch or squeeze membranes.
5. Provide uniform, neat seams.
6. Install roof expansion joints to fit substrates and to result in watertight performance.
7. Torch cutting of roof expansion joints is not permitted.
8. Do not use graphite pencils to mark aluminum surfaces.

B. Splices: Splice roof expansion joints with materials provided by roof-expansion-joint manufacturer for this purpose, to provide continuous, uninterrupted, and waterproof joints.

C. Fire Barrier: Install fire barrier where indicated to provide continuous, uninterrupted fire resistance throughout length of roof expansion joint, including transitions and end joints.

D. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

3.3 PROTECTION

A. Protect roof expansion joints from foot traffic, displacement, or other damage.

B. Remove and replace roof expansion joints and components that become damaged by moisture or otherwise.

END OF SECTION 077129

SECTION 077200 - ROOF ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Roof hatches.
2. Preformed flashing sleeves.

B. Related Sections:

1. Section 055000 "Metal Fabrications" for metal vertical ladders, ships' ladders, and stairs for access to roof hatches.
2. Section 076200 "Sheet Metal Flashing and Trim" for shop- and field-formed metal flashing, roof-drainage systems, roof expansion-joint covers, and miscellaneous sheet metal trim and accessories.
3. Section 077100 "Roof Specialties" for manufactured fasciae and roof edge flashings.
4. Section 077129 "Manufactured Roof Expansion Joints" for manufactured roof expansion-joint covers.

1.3 COORDINATION

A. Coordinate layout and installation of roof accessories with roofing membrane and base flashing and interfacing and adjoining construction to provide a leakproof, weathertight, secure, and noncorrosive installation.

B. Coordinate dimensions with rough-in information or Shop Drawings of equipment to be supported.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of roof accessory.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: For roof accessories.

1. Include plans, elevations, keyed details, and attachments to other work. Indicate dimensions, loadings, and special conditions. Distinguish between plant- and field-assembled work.

C. Samples: For each exposed product and for each color and texture specified, prepared on Samples of size to adequately show color.

1.5 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Roof plans, drawn to scale, and coordinating penetrations and roof-mounted items. Show the following:

1. Size and location of roof accessories specified in this Section.
2. Method of attaching roof accessories to roof or building structure.
3. Other roof-mounted items including mechanical and electrical equipment, ductwork, piping, and conduit.
4. Required clearances.

B. Sample Warranties: For manufacturer's special warranties.

1.6 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For roof accessories to include in operation and maintenance manuals.

1.7 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace roof hatch that fails in materials or workmanship within specified warranty period.

1. Warranty Period: Five (5) years from date of Substantial Completion.

B. Special Warranty on Painted Finishes: Manufacturer's standard form in which manufacturer agrees to repair finishes or replace roof accessories that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Finish Warranty Period: Five (5) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General Performance: Roof accessories shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

2.2 ROOF HATCHES

A. Roof Hatches: Metal roof-hatch units with lids and insulated single-walled curbs, welded or mechanically fastened and sealed corner joints, continuous lid-to-curb counterflashing and weathertight perimeter gasketing, and integrally formed deck-mounting flange at perimeter bottom.

1. Basis-of-Design:

a. Bilco Company (The); **Type F-50**

2. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Milcor Inc.; Commercial Products Group of Hart & Cooley, Inc.
b. Precision Ladders, LLC
c. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

B. Type and Size: Single-leaf lid, sized to match existing.

C. Loads: Minimum 40-lbf/sq. ft. external live load and 20-lbf/sq. ft. internal uplift load.

D. Hatch Material: Aluminum sheet.

1. Thickness: 0.090-inch.
2. Finish: Mill.

E. Construction:

1. Insulation: Glass-fiber board.
2. Hatch Lid: Opaque, insulated, and double walled, with manufacturer's standard metal liner of same material and finish as outer metal lid.
3. Fabricate curbs to minimum height of 12 inches above roofing surface unless otherwise indicated.

F. Hardware: Spring operators, hold-open arm, galvanized steel spring latch with turn handles, stainless-steel butt- or pintle-type hinge system, and padlock hasps inside and outside.

G. Safety Railing System: Roof-hatch manufacturer's standard system including rails, clamps, fasteners, safety barrier at railing opening, and accessories required for a complete installation; attached to roof hatch and complying with 29 CFR 1910.23 requirements and authorities having jurisdiction.

1. Height: 42 inches above finished roof deck.
2. Posts and Rails: Galvanized-steel pipe, 1¼ inches in diameter or galvanized-steel tube, 1-5/8 inches in diameter.
3. Flat Bar: Galvanized steel, 2 inches high by 3/8-inch-thick.
4. Maximum Opening Size: System constructed to prevent passage of a sphere 21 inches in diameter.
5. Self-Latching Gate: Fabricated of same materials and rail spacing as safety railing system. Provide manufacturer's standard hinges and self-latching mechanism.
6. Post and Rail Tops and Ends: Weather resistant, closed or plugged with prefabricated end fittings.
7. Provide weep holes or another means to drain entrapped water in hollow sections of handrail and railing members.
8. Fabricate joints exposed to weather to be watertight.
9. Fasteners: Manufacturer's standard, finished to match railing system.
10. Finish: Manufacturer's standard baked enamel or powder coat.

a. Color: As selected by Architect and Owner from manufacturer's full range.

H. Ladder-Assist Post: Roof-hatch manufacturer's standard device for attachment to roof-access ladder.

1. Operation: Post locks in place on full extension; release mechanism returns post to closed position.
2. Height: 42 inches above finished roof deck.
3. Material: Hot-dip galvanized steel tube.
4. Post: 1-5/8-inch-diameter pipe.

5. Finish: Manufacturer's standard baked enamel or powder coat.

    a. Color: As selected by Architect and Owner from manufacturer's full range.

2.3 PREFORMED FLASHING SLEEVES

A. Vent Stack Flashing: Metal flashing sleeve, uninsulated, with integral deck flange.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

    a. Custom Solution Roof and Metal Products
    b. Milcor Inc.; Commercial Products Group of Hart & Cooley, Inc.
    c. Thaler Metal USA Inc.
    d. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2. Metal: Aluminum sheet, 0.063-inch-thick.
3. Height: 19 inches.
4. Diameter: As required.
5. Finish: Manufacturer's standard.

2.4 METAL MATERIALS

A. Aluminum Sheet: ASTM B 209, manufacturer's standard alloy for finish required, with temper to suit forming operations and performance required.

1. Mill Finish: As manufactured.
2. Exposed Coil-Coated Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

    a. Two-Coat Fluoropolymer Finish: AAMA 2605. System consisting of primer and fluoropolymer color topcoat containing not less than seventy percent (70%) polyvinylidene fluoride (PVDF) resin by weight.

B. Aluminum Extrusions and Tubes: ASTM B 221, manufacturer's standard alloy and temper for type of use, finished to match assembly where used; otherwise mill finished.

C. Galvanized-Steel Tube: ASTM A 500, round tube, hot-dip galvanized according to ASTM A 123.

D. Steel Pipe: ASTM A 53, galvanized.

2.5 MISCELLANEOUS MATERIALS

A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items required by manufacturer for a complete installation.

B. Glass-Fiber Board Insulation: ASTM C 726, nominal density of 3 lb./cu. ft., thermal resistivity of 4.3 deg F x h x sq. ft./Btu x in. at 75 deg F (29.8 K x m/W at 24 deg C), thickness as indicated.

C. Wood Nailers: Softwood lumber, pressure treated with waterborne preservatives for aboveground use, acceptable to authorities having jurisdiction, containing no arsenic or chromium, and complying with AWPA C2; not less than 1½ inches thick.

D. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.

E. Underlayment:

1. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, non-perforated.
2. Polyethylene Sheet: 6-mil-thick polyethylene sheet complying with ASTM D 4397.
3. Slip Sheet: Building paper, 3-lb/100 sq. ft. minimum, rosin sized.

F. Fasteners: Roof accessory manufacturer's recommended fasteners suitable for application and metals being fastened. Match finish of exposed fasteners with finish of material being fastened. Provide non-removable fastener heads to exterior exposed fasteners. Furnish the following unless otherwise indicated:

1. Fasteners for Aluminum Sheet: Aluminum or Series 300 stainless-steel.

G. Gaskets: Manufacturer's standard tubular or fingered design of neoprene, EPDM, PVC, or silicone or a flat design of foam rubber, sponge neoprene, or cork.

H. Elastomeric Sealant: ASTM C 920, elastomeric polymer sealant as recommended by roof accessory manufacturer for installation indicated; low modulus; of type, grade, class, and use classifications required to seal joints and remain watertight.

I. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for expansion joints with limited movement.

J. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

K. Concrete Splash Blocks: 2-foot-long x 1-foot-wide flared concrete splash block pitched to drain away from the building, with side walls and textured finish.

2.6 GENERAL FINISH REQUIREMENTS

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Baked-Enamel or Powder-Coat Finish: After cleaning and pretreating, apply manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat to a minimum dry film thickness of 2 mils.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.

B. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

C. Verify dimensions of roof openings for roof accessories.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Install roof accessories according to manufacturer's written instructions.

1. Install roof accessories level, plumb, true to line and elevation, and without warping, jogs in alignment, excessive oil canning, buckling, or tool marks.
2. Anchor roof accessories securely in place so they are capable of resisting indicated loads.
3. Use fasteners, separators, sealants, and other miscellaneous items as required to complete installation of roof accessories and fit them to substrates.
4. Install roof accessories to resist exposure to weather without failing, rattling, leaking, or loosening of fasteners and seals.

B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

1. Coat concealed side of uncoated aluminum roof accessories with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
2. Underlayment: Where installing roof accessories directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet, or install a course of polyethylene sheet.
3. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof accessories for waterproof performance.

C. Roof-Hatch Installation:

1. Install roof hatch so top surface of hatch curb is level.
2. Verify that roof hatch operates properly. Clean, lubricate, and adjust operating mechanism and hardware.
3. Attach safety railing system to roof-hatch curb.
4. Attach ladder-assist post according to manufacturer's written instructions.

D. Preformed Flashing-Sleeve Installation: Secure flashing sleeve to roof membrane according to flashing-sleeve manufacturer's written instructions.

E. Seal joints with elastomeric or butyl sealant as required by roof accessory manufacturer.

3.3 REPAIR AND CLEANING

A. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing according to ASTM A 780.

B. Clean exposed surfaces according to manufacturer's written instructions.

C. Clean off excess sealants.

D. Replace roof accessories that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 077200

SECTION 078413 - PENETRATION FIRESTOPPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Fireproof firestopping and firesafing materials and accessories.

1.3 PERFORMANCE REQUIREMENTS

A. Fireproofing Materials: ASTM E 119 and ASTM E 814 to achieve a fire rating as noted on Drawings.

B. Surface Burning: ASTM E 84 with a flame spread/fuel contributed/smoke developed rating of 5/0/0.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated provide characteristics, performance and limitation criteria.

B. Manufacturer's Installation Instructions: Indicate preparation and installation instructions.

C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing the products specified in this Section with minimum three (3) years documented experience.

B. Applicator: Company specializing in performing the work of this Section with minimum five (5) years documented experience.

1.6 REGULATORY REQUIREMENTS

A. Conform to applicable State Building code for fire resistance ratings and surface burning characteristics.

B. UL Classifications for these systems shall be (all two (2) hours or more):

1. Duct Penetrations: C-AJ-7027
2. Pipe Penetrations: C-AJ-1079
3. Cable Penetrations: C-AJ-1079
4. Conduit Penetrations: C-AJ-1079

1.7 MOCK-UP

A. Provide mock-up of applied firestopping material.

B. Apply 1 lineal ft to a representative substrate surface.

C. If accepted, mock-up will demonstrate minimum standard for the Work.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Do not apply materials when temperature of substrate material and ambient air is below 60 degrees F.

B. Maintain this minimum temperature before, during and for three (3) days after installation of materials.

C. Provide ventilation in areas to receive solvent cured materials.

1.9 SEQUENCING

A. Sequence Work to permit firestopping materials to be installed after adjacent and surrounding work is complete.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Thermal Ceramics; **Firemaster Putty, Bulk and Blankets**

B. Tremco Incorporated; **Fyre-shield and Cerablanket FS Hilti, Inc.**

C. United States Gypsum; **Thermafiber Safing Insulation and FIRECODE compound**

D. Substitutions: Under provisions of Section 016310 “Equals and Substitutions”.

2.2 MATERIALS

A. Firestopping Material: Single component silicone elastomeric compounds; conforming to the following:

1. Elongation & Shrinkage: Five percent (5%).
2. Tensile Strength: 300 psi.
3. Density: 8 lb/cu ft.
4. Surface Durability: 35 (Shore Hardness).
5. Durability and Longevity: Permanent.
6. Side Effects during Installation: Non-toxic.
7. Long Term Side Effects: None.

B. Primer: Type recommended by firestopping manufacturer for specific substrate surfaces.

C. Firesafing Blankets: ASTM C 665; 4 psf nominal density firesafing insulation.

D. Putty Pads: UL CLIV; acoustic, intumescent pad; 3.2mm thickness.

2.3 ACCESSORIES

A. Dam Material: Mineral fiber matting, permanent.

B. Retainers: Stainless clips to support mineral fiber matting

2.4 FINISHES

A. Color: Dark gray or manufacturer’s standard color.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Installer present, for compliance with requirements for opening configurations, penetrating items, substrates, and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning: Clean out openings immediately before installing penetration firestopping to comply with manufacturer's written instructions and with the following requirements:

1. Remove from surfaces of opening substrates and from penetrating items foreign materials that could interfere with adhesion of penetration firestopping.
2. Clean opening substrates and penetrating items to produce clean, sound surfaces capable of developing optimum bond with penetration firestopping. Remove loose particles remaining from cleaning operation.
3. Remove laitance and form-release agents from concrete.

B. Install backing materials to arrest liquid material leakage.

3.3 INSTALLATION

A. General: Install penetration firestopping to comply with manufacturer's written installation instructions and published drawings for products and applications indicated.

B. Apply firestopping material to all wall and floor penetrations through rated assemblies. These penetrations include electrical conduit and raceways, plumbing and heating system penetrations, ducts and other system chases.

C. Apply primer and materials in accordance with manufacturer's instructions.

D. Apply firestopping material in sufficient thickness to achieve rating to a density of fifty percent (50%) to uniform density and texture.

E. Install material at walls or partition openings which contain penetrating sleeves, piping, ductwork, conduit and other items requiring firestopping.

F. Remove dam material after firestopping material has cured.

3.4 CLEANING AND PROTECTION

A. Clean off excess materials adjacent to openings as the Work progresses by methods and with cleaning materials that are approved in writing by penetration firestopping manufacturers and that do not damage materials in which openings occur.

B. Provide final protection and maintain conditions during and after installation that ensure that penetration firestopping is without damage or deterioration at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, immediately cut out and remove damaged or deteriorated penetration firestopping and install new materials to produce systems complying with specified requirements.

3.5 SCHEDULE

A. See Construction Documents for rating information and construction details and conditions.

B. Firesafe all penetrations through new and existing masonry and gypsum board construction in the project work areas, equal to the one (1) or two (2) hour rating of the appropriate spaces.

END OF SECTION 078413

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Silicone joint sealants.

1.3 ACTION SUBMITTALS

A. Product Data: For each joint-sealant product indicated.

B. Samples: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.

C. Joint-Sealant Schedule: Include the following information:

1. Joint-sealant application, joint location, and designation.
2. Joint-sealant manufacturer and product name.
3. Joint-sealant formulation.
4. Joint-sealant color.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer.

B. Product Certificates: For each kind of joint sealant and accessory, from manufacturer.

C. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, indicating that sealants comply with requirements.

D. Warranties: Sample of special warranties.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.

B. Source Limitations: Obtain each kind of joint sealant from single source from single manufacturer.

C. Product Testing: Test joint sealants using a qualified testing agency.

1. Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.

1.6 PROJECT CONDITIONS

A. Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F (5 deg C).
2. When joint substrates are wet.
3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.7 WARRANTY

A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Five (5) years from date of Substantial Completion.

B. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:

1. Movement of the structure caused by structural settlement or errors attributable to design or construction resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
2. Disintegration of joint substrates from natural causes exceeding design specifications.
3. Mechanical damage caused by individuals, tools, or other outside agents.
4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

B. VOC Content of Sealants: Sealants and sealant primers used as part of the weatherproofing system shall comply with the following:

1. Exterior: VOC content of 100 g/L or less.

C. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.

D. Stain-Test-Response Characteristics: Where sealants are specified to be non-staining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.

E. Colors of Exposed Joint Sealants: As selected by Architect and Owner from manufacturer's full range, to match adjacent where required.

2.2 SILICONE JOINT SEALANTS

A. Silicone, Non-Staining: Non-Staining, single-component, non-sag, plus fifty percent (+50%) and minus fifty percent (-50%) movement capability, non-traffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 50, Use NT.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

a. Dow Corning Corporation
b. Master Bond, Inc.
c. Pecora Corporation
d. Tremco Incorporated
e. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2.3 JOINT SEALANT BACKING

A. General: Provide sealant backings of material that are non-staining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

B. Cylindrical Sealant Backings: ASTM C 1330, Type B (bi-cellular material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

2.4 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.

C. Masking Tape: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:

1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Porous joint substrates include the following:

    a. Concrete.
    b. Masonry.

3. Remove laitance and form-release agents from concrete.
4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:

    a. Metal.
    b. Glass.

B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.

B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

1. Do not leave gaps between ends of sealant backings.
2. Do not stretch, twist, puncture, or tear sealant backings.
3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:

1. Place sealants so they directly contact and fully wet joint substrates.
2. Completely fill recesses in each joint configuration.
3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

F. Tooling of Non-Sag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.

1. Remove excess sealant from surfaces adjacent to joints.
2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
4. Provide flush joint profile where indicated per Figure 8B in ASTM C 1193.
5. Provide recessed joint configuration of recess depth and at locations indicated per Figure 8C in ASTM C 1193.

    a. Use masking tape to protect surfaces adjacent to recessed tooled joints.

3.4 CLEANING

A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

3.6 JOINT-SEALANT SCHEDULE

A. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal non-traffic surfaces.

1. Joint Locations:

    a. Control and expansion joints in unit masonry.
    b. Joints between different materials.
    c. Perimeter joints between materials listed above and frames of exterior openings.
    d. Other joints as indicated.

2. Joint Sealant: Silicone, non-staining, S, NS, 50, NT.

END OF SECTION 079200

SECTION 220719 - PLUMBING PIPING INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes insulating the following plumbing piping services:

1. Stormwater piping exposed to freezing conditions.
2. Roof drains and rainwater leaders.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated. Include thermal conductivity, water-vapor permeance thickness, and jackets (both factory- and field-applied, if any).

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

1. Detail application of protective shields, saddles, and inserts at hangers for each type of insulation and hanger.
2. Detail insulation application at pipe expansion joints for each type of insulation.
3. Detail insulation application at elbows, fittings, flanges, valves, and specialties for each type of insulation.
4. Detail removable insulation at piping specialties, equipment connections, and access panels.
5. Detail application of field-applied jackets.
6. Detail application at linkages of control devices.

C. Samples: For each type of insulation and jacket indicated. Identify each Sample, describing product and intended use. Sample sizes are as follows:

1. Preformed Pipe Insulation Materials: 12 inches long by NPS 2.
2. Jacket Materials for Pipe: 12 inches long by NPS 2.
3. Sheet Jacket Materials: 12 inches square.
4. Manufacturer's Color Charts: For products where color is specified, show the full range of colors available for each type of finish material.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer.

B. Material Test Reports: From a qualified testing agency acceptable to authorities having jurisdiction indicating, interpreting, and certifying test results for compliance of insulation materials, sealers, attachments, cements, and jackets, with requirements indicated. Include dates of tests and test methods employed.

C. Field quality-control reports.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Skilled mechanics who have successfully completed an apprenticeship program or another craft training program certified by the Department of Labor, Bureau of Apprenticeship and Training.

B. Surface-Burning Characteristics: For insulation and related materials, as determined by testing identical products according to ASTM E 84 by a testing agency acceptable to authorities having jurisdiction. Factory label insulation and jacket materials and adhesive, mastic, tapes, and cement material containers, with appropriate markings of applicable testing agency.

1. Insulation Installed Indoors: Flame-spread index of 25 or less, and smoke-developed index of 50 or less.
2. Insulation Installed Outdoors: Flame-spread index of 75 or less, and smoke-developed index of 150 or less.

C. Comply with the following applicable standards and other requirements specified for miscellaneous components:

1. Supply and Drain Protective Shielding Guards: ICC A117.1.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Packaging: Insulation material containers shall be marked by manufacturer with appropriate ASTM standard designation, type and grade, and maximum use temperature.

1.7 COORDINATION

A. Coordinate sizes and locations of supports, hangers, and insulation shields specified in Section 220529 "Hangers and Supports for Plumbing Piping and Equipment."

B. Coordinate clearance requirements with piping Installer for piping insulation application. Before preparing piping Shop Drawings, establish and maintain clearance requirements for installation of insulation and field-applied jackets and finishes and for space required for maintenance.

1.8 SCHEDULING

A. Schedule insulation application after pressure testing systems. Insulation application may begin on segments that have satisfactory test results.

B. Complete installation and concealment of plastic materials as rapidly as possible in each area of construction.

PART 2 - PRODUCTS

2.1 INSULATION MATERIALS

A. Pipe insulation thickness shall conform to ASHRAE 90.1 2007, Table 6.8.3.

B. Comply with requirements in "Piping Insulation Schedule, General" and "Indoor Piping Insulation Schedule" articles for where insulating materials shall be applied.

C. Products shall not contain asbestos, lead, mercury, or mercury compounds.

D. Products that come in contact with stainless-steel shall have a leachable chloride content of less than 50 ppm when tested according to ASTM C 871.

E. Insulation materials for use on austenitic stainless-steel shall be qualified as acceptable according to ASTM C 795.

F. Foam insulation materials shall not use CFC or HCFC blowing agents in the manufacturing process.

G. Mineral-Fiber, Preformed Pipe Insulation:

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Johns Manville; a Berkshire Hathaway company; **Micro-Lok**
b. Knauf Insulation; **Earthwool 1000 Degree Pipe Insulation with ECOSE Technology**
c. Owens Corning; **Fiberglas Pipe Insulation**

2. Type I, 850 Deg F Materials: Mineral or glass fibers bonded with a thermosetting resin. Comply with ASTM C 547, Type I, Grade A, with factory-applied ASJ-SSL. Factory-applied jacket requirements are specified in "Factory-Applied Jackets" Article.

2.2 INSULATING CEMENTS

A. Mineral-Fiber Insulating Cement: Comply with ASTM C 195.

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Ramco Insulation, Inc; **Super-Stik**

B. Expanded or Exfoliated Vermiculite Insulating Cement: Comply with ASTM C 196.

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Ramco Insulation, Inc; **Thermokote V**

C. Mineral-Fiber, Hydraulic-Setting Insulating and Finishing Cement: Comply with ASTM C 449.

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Ramco Insulation, Inc; **Ramcote 1200** and **Quik-Cote**

2.3 ADHESIVES

A. Materials shall be compatible with insulation materials, jackets, and substrates and for bonding insulation to itself and to surfaces to be insulated, unless otherwise indicated.

B. Cellular-Glass Adhesive: Two-component, thermosetting urethane adhesive containing no flammable solvents, with a service temperature range of minus 100 to plus 200 deg F.

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Foster Brand; H. B. Fuller Construction Products; **81-84**

2. For indoor applications, adhesive shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

C. Mineral-Fiber Adhesive: Comply with MIL-A-3316C, Class 2, Grade A.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-127**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; **85-60/85-70**
d. Mon-Eco Industries, Inc; **22-25**

2. For indoor applications, adhesive shall have a VOC content of 80 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

D. ASJ Adhesive, and FSK Jacket Adhesive: Comply with MIL-A-3316C, Class 2, Grade A for bonding insulation jacket lap seams and joints.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-82**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; **85-20**
d. Mon-Eco Industries, Inc; **22-25**

2. For indoor applications, adhesive shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.4 MASTICS

A. Materials shall be compatible with insulation materials, jackets, and substrates; comply with MIL-PRF-19565C, Type II.

1. For indoor applications, use mastics that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

B. Breather Mastic: Water based; suitable for indoor and outdoor use on above-ambient services.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-10**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; 4**6-50**
d. Knauf Insulation; EXPERT Mastics - **KI-705 ASJ+**
e. Mon-Eco Industries, Inc; **55-50**
f. Vimasco Corporation; **WC-1/WC-5**

2. Water-Vapor Permeance: ASTM F 1249, 1.8 perms at 0.0625-inch dry film thickness.
3. Service Temperature Range: Minus 20 to plus 180 deg F.
4. Solids Content: Sixty percent (60%) by volume and sixty-six percent (66%) by weight.
5. Color: White.

2.5 LAGGING ADHESIVES

A. Description: Comply with MIL-A-3316C, Class I, Grade A, and shall be compatible with insulation materials, jackets, and substrates.

1. For indoor applications, use lagging adhesives that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
2. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-50 AHV2**
b. Foster Brand; H. B. Fuller Construction Products; **30-36**
c. Vimasco Corporation; **713** and **714**

3. Fire-resistant, water-based lagging adhesive and coating for use indoors to adhere fire-resistant lagging cloths over pipe insulation.
4. Service Temperature Range: 0 to plus 180 deg F.
5. Color: White.

2.6 SEALANTS

A. Joint Sealants:

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-76**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; **30-45**
d. Mon-Eco Industries, Inc; **44-05**
e. Pittsburgh Corning Corporation; **Pittseal 444**

2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Permanently flexible, elastomeric sealant.
4. Service Temperature Range: Minus 100 to plus 300 deg F.
5. Color: White or gray.
6. For indoor applications, sealants shall have a VOC content of 420 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

B. FSK and Metal Jacket Flashing Sealants:

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-76**
b. Eagle Bridges - Marathon Industries
c. Foster Brand; H. B. Fuller Construction Products; **95-44**
d. Mon-Eco Industries, Inc; **44-05**

2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Fire- and water-resistant, flexible, elastomeric sealant.
4. Service Temperature Range: Minus 40 to plus 250 deg F.
5. Color: Aluminum.
6. For indoor applications, sealants shall have a VOC content of 420 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

C. ASJ Flashing Sealants, and Vinyl, PVDC, and PVC Jacket Flashing Sealants:

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. Childers Brand; H. B. Fuller Construction Products; **CP-76**

2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Fire- and water-resistant, flexible, elastomeric sealant.
4. Service Temperature Range: Minus 40 to plus 250 deg F.
5. Color: White.
6. For indoor applications, sealants shall have a VOC content of 420 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.7 FACTORY-APPLIED JACKETS

A. Insulation system schedules indicate factory-applied jackets on various applications. When factory-applied jackets are indicated, comply with the following:

1. ASJ: White, Kraft-paper, fiberglass-reinforced scrim with aluminum-foil backing; complying with ASTM C 1136, Type I.
2. ASJ-SSL: ASJ with self-sealing, pressure-sensitive, acrylic-based adhesive covered by a removable protective strip; complying with ASTM C 1136, Type I.
3. FSK Jacket: Aluminum-foil, fiberglass-reinforced scrim with Kraft-paper backing; complying with ASTM C 1136, Type II.

2.8 FIELD-APPLIED JACKETS

A. Field-applied jackets shall comply with ASTM C 921, Type I, unless otherwise indicated.

B. PVC Jacket: High-impact-resistant, UV-resistant PVC complying with ASTM D 1784, Class 16354-C; thickness as scheduled; roll stock ready for shop or field cutting and forming. Thickness is indicated in field-applied jacket schedules.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Johns Manville; a Berkshire Hathaway company; **Zeston**
b. P.I.C. Plastics, Inc; **FG Series**
c. Proto Corporation; **LoSmoke**
d. Speedline Corporation; **SmokeSafe**

2. Adhesive: As recommended by jacket material manufacturer.
3. Color: Color-code jackets based on system. Color as selected by Architect.
4. Factory-fabricated fitting covers to match jacket if available; otherwise, field fabricate.

a. Shapes: 45- and 90-degree, short- and long-radius elbows, tees, valves, flanges, unions, reducers, end caps, soil-pipe hubs, traps, mechanical joints, and P-trap and supply covers for lavatories.

2.9 TAPES

A. ASJ Tape: White vapor-retarder tape matching factory-applied jacket with acrylic adhesive, complying with ASTM C 1136.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

    a. Avery Dennison Corporation, Specialty Tapes Division; **Fasson 0836**
    b. Compac Corporation; **104** and **105**
    c. Ideal Tape Co., Inc,; an American Biltrite company; **428 AWF ASJ**
    d. Knauf Insulation; EXPERT Tapes - **ASJ+ Tape**
    e. Venture Tape; **1540 CW Plus**, **1542 CW Plus**, and **1542 CW Plus/SQ**

2. Width: 3 inches.
3. Thickness: 11.5 mils.
4. Adhesion: 90 ounces force/inch in width.
5. Elongation: Two percent (2%).
6. Tensile Strength: 40 lbf/inch in width.
7. ASJ Tape Disks and Squares: Precut disks or squares of ASJ tape.

B. FSK Tape: Foil-face, vapor-retarder tape matching factory-applied jacket with acrylic adhesive; complying with ASTM C 1136.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

    a. Avery Dennison Corporation, Specialty Tapes Division; **Fasson 0827**
    b. Compac Corporation; **110** and **111**
    c. Ideal Tape Co., Inc,; an American Biltrite company; **491 AWF FSK**
    d. Knauf Insulation; EXPERT Tapes - **FSK Tape**
    e. Venture Tape; **1525 CW NT**, **1528 CW**, and **1528 CW/SQ**

2. Width: 3 inches.
3. Thickness: 6.5 mils.
4. Adhesion: 90 ounces force/inch in width.
5. Elongation: Two percent (2%).
6. Tensile Strength: 40 lbf/inch in width.
7. FSK Tape Disks and Squares: Precut disks or squares of FSK tape.

C. PVC Tape: White vapor-retarder tape matching field-applied PVC jacket with acrylic adhesive; suitable for indoor and outdoor applications.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

    a. Compac Corporation
    b. Ideal Tape Co., Inc,; an American Biltrite company; **370 White PVC tape**
    c. Venture Tape; **1506 CW NS**

2. Width: 2 inches.
3. Thickness: 6 mils.
4. Adhesion: 64 ounces force/inch in width.
5. Elongation: Five hundred percent (500%).
6. Tensile Strength: 18 lbf/inch in width.

D. Aluminum-Foil Tape: Vapor-retarder tape with acrylic adhesive.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. Avery Dennison Corporation, Specialty Tapes Division; **Fasson 0800**
b. Compac Corporation
c. Ideal Tape Co., Inc,; an American Biltrite company; **488 AWF**
d. Knauf Insulation; EXPERT Tapes - **2 Mil Foil Tape**
e. Venture Tape; **3520 CW**

2. Width: 2 inches.
3. Thickness: 3.7 mils.
4. Adhesion: 100 ounces force/inch in width.
5. Elongation: Five percent (5%).
6. Tensile Strength: 34 lbf/inch in width.

2.10 SECUREMENTS

A. Bands:

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. ITW Insulation Systems; Illinois Tool Works, Inc; **Gerrard Strapping and Seals**
b. RPR Products, Inc; **Insul-Mate Strapping and Seals**

2. Stainless-Steel: ASTM A 167 or ASTM A 240, Type 316; 0.015-inch-thick, ¾-inch-wide with wing seal or closed seal.
3. Aluminum: ASTM B 209, Alloy 3003, 3005, 3105, or 5005; Temper H-14, 0.020-inch-thick, ¾-inch-wide with wing seal or closed seal.

B. Staples: Outward-clinching insulation staples, nominal ¾-inch-wide, stainless-steel or Monel.

C. Wire: 0.062-inch soft-annealed, stainless-steel.

1. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:

a. C & F Wire

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of insulation application.

1. Verify that systems to be insulated have been tested and are free of defects.
2. Verify that surfaces to be insulated are clean and dry.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Preparation: Clean and dry surfaces to receive insulation. Remove materials that will adversely affect insulation application.

B. Mix insulating cements with clean potable water; if insulating cements are to be in contact with stainless-steel surfaces, use demineralized water.

3.3 GENERAL INSTALLATION REQUIREMENTS

A. Install insulation materials, accessories, and finishes with smooth, straight, and even surfaces; free of voids throughout the length of piping including fittings, valves, and specialties.

B. Install insulation materials, forms, vapor barriers or retarders, jackets, and thicknesses required for each item of pipe system as specified in insulation system schedules.

C. Install accessories compatible with insulation materials and suitable for the service. Install accessories that do not corrode, soften, or otherwise attack insulation or jacket in either wet or dry state.

D. Install insulation with longitudinal seams at top and bottom of horizontal runs.

E. Install multiple layers of insulation with longitudinal and end seams staggered.

F. Do not weld brackets, clips, or other attachment devices to piping, fittings, and specialties.

G. Keep insulation materials dry during application and finishing.

H. Install insulation with tight longitudinal seams and end joints. Bond seams and joints with adhesive recommended by insulation material manufacturer.

I. Install insulation with least number of joints practical.

J. Where vapor barrier is indicated, seal joints, seams, and penetrations in insulation at hangers, supports, anchors, and other projections with vapor-barrier mastic.

1. Install insulation continuously through hangers and around anchor attachments.
2. For insulation application where vapor barriers are indicated, extend insulation on anchor legs from point of attachment to supported item to point of attachment to structure. Taper and seal ends at attachment to structure with vapor-barrier mastic.
3. Install insert materials and install insulation to tightly join the insert. Seal insulation to insulation inserts with adhesive or sealing compound recommended by insulation material manufacturer.
4. Cover inserts with jacket material matching adjacent pipe insulation. Install shields over jacket, arranged to protect jacket from tear or puncture by hanger, support, and shield.

K. Apply adhesives, mastics, and sealants at manufacturer's recommended coverage rate and wet and dry film thicknesses.

L. Install insulation with factory-applied jackets as follows:

1. Draw jacket tight and smooth.
2. Cover circumferential joints with 3-inch-wide strips of same material as insulation jacket. Secure strips with adhesive and outward clinching staples along both edges of strip, spaced 4 inches o.c.
3. Overlap jacket longitudinal seams at least 1½ inches. Install insulation with longitudinal seams at bottom of pipe. Clean and dry surface to receive self-sealing lap. Staple laps with outward clinching staples along edge at 2 inches o.c.

    a. For below-ambient services, apply vapor-barrier mastic over staples.

4. Cover joints and seams with tape, according to insulation material manufacturer's written instructions, to maintain vapor seal.
5. Where vapor barriers are indicated, apply vapor-barrier mastic on seams and joints and at ends adjacent to pipe flanges and fittings.

M. Cut insulation in a manner to avoid compressing insulation more than seventy-five percent (75%) of its nominal thickness.

N. Finish installation with systems at operating conditions. Repair joint separations and cracking due to thermal movement.

O. Repair damaged insulation facings by applying same facing material over damaged areas. Extend patches at least 4 inches beyond damaged areas. Adhere, staple, and seal patches similar to butt joints.

P. For above-ambient services, do not install insulation to the following:

1. Vibration-control devices.
2. Testing agency labels and stamps.
3. Nameplates and data plates.
4. Cleanouts.

3.4 PENETRATIONS

A. Insulation Installation at Roof Penetrations: Install insulation continuously through roof penetrations.

1. Seal penetrations with flashing sealant.
2. For applications requiring only indoor insulation, terminate insulation above roof surface and seal with joint sealant. For applications requiring indoor and outdoor insulation, install insulation for outdoor applications tightly joined to indoor insulation ends. Seal joint with joint sealant.
3. Extend jacket of outdoor insulation outside roof flashing at least 2 inches below top of roof flashing.
4. Seal jacket to roof flashing with flashing sealant.

B. Insulation Installation at Aboveground Exterior Wall Penetrations: Install insulation continuously through wall penetrations.

1. Seal penetrations with flashing sealant.
2. For applications requiring only indoor insulation, terminate insulation inside wall surface and seal with joint sealant. For applications requiring indoor and outdoor insulation, install insulation for outdoor applications tightly joined to indoor insulation ends. Seal joint with joint sealant.
3. Extend jacket of outdoor insulation outside wall flashing and overlap wall flashing at least 2 inches.
4. Seal jacket to wall flashing with flashing sealant.

C. Insulation Installation at Interior Wall and Partition Penetrations (That Are Not Fire Rated): Install insulation continuously through walls and partitions.

D. Insulation Installation at Fire-Rated Wall and Partition Penetrations: Install insulation continuously through penetrations of fire-rated walls and partitions.

1. Comply with requirements in Section 078413 "Penetration Firestopping" for firestopping and fire-resistive joint sealers.

E. Insulation Installation at Floor Penetrations:

1. Pipe: Install insulation continuously through floor penetrations.
2. Seal penetrations through fire-rated assemblies. Comply with requirements in Section 078413 "Penetration Firestopping."

3.5 GENERAL PIPE INSULATION INSTALLATION

A. Requirements in this article generally apply to all insulation materials except where more specific requirements are specified in various pipe insulation material installation articles.

B. Insulation Installation on Fittings, Valves, Strainers, Flanges, and Unions:

1. Install insulation over fittings, valves, strainers, flanges, unions, and other specialties with continuous thermal and vapor-retarder integrity unless otherwise indicated.
2. Insulate pipe elbows using preformed fitting insulation, mitered fittings made from same material and density as adjacent pipe insulation or PVC fitting cover manufacturer recommended flexible fiberglass inserts. Each piece shall be butted tightly against adjoining piece and bonded with adhesive. Fill joints, seams, voids, and irregular surfaces with insulating cement finished to a smooth, hard, and uniform contour that is uniform with adjoining pipe insulation.
3. Insulate tee fittings with preformed fitting insulation or sectional pipe insulation of same material and thickness as used for adjacent pipe. Cut sectional pipe insulation to fit. Butt each section closely to the next and hold in place with tie wire. Bond pieces with adhesive.
4. Insulate valves using preformed fitting insulation or sectional pipe insulation of same material, density, and thickness as used for adjacent pipe. Overlap adjoining pipe insulation by not less than two (2) times the thickness of pipe insulation, or one (1) pipe diameter, whichever is thicker. For valves, insulate up to and including the bonnets, valve stuffing-box studs, bolts, and nuts. Fill joints, seams, and irregular surfaces with insulating cement.
5. Insulate strainers using preformed fitting insulation or sectional pipe insulation of same material, density, and thickness as used for adjacent pipe. Overlap adjoining pipe insulation by not less than two (2) times the thickness of pipe insulation, or one (1) pipe diameter, whichever is thicker. Fill joints, seams, and irregular surfaces with insulating cement. Insulate strainers so strainer basket flange or plug can be easily removed and replaced without damaging the insulation and jacket. Provide a removable reusable insulation cover. For below-ambient services, provide a design that maintains vapor barrier.
6. Insulate flanges and unions using a section of oversized preformed pipe insulation. Overlap adjoining pipe insulation by not less than two (2) times the thickness of pipe insulation, or one (1) pipe diameter, whichever is thicker.
7. Cover segmented insulated surfaces with a layer of finishing cement and coat with a mastic. Install vapor-barrier mastic for below-ambient services and a breather mastic for above-ambient services. Reinforce the mastic with fabric-reinforcing mesh. Trowel the mastic to a smooth and well-shaped contour.
8. For services not specified to receive a field-applied jacket except for flexible elastomeric and polyolefin, install fitted PVC cover over elbows, tees, strainers, valves, flanges, and unions. Terminate ends with PVC end caps. Tape PVC covers to adjoining insulation facing using PVC tape.
9. Stencil or label the outside insulation jacket of each union with the word "union." Match size and color of pipe labels.

C. Insulate instrument connections for thermometers, pressure gages, pressure temperature taps, test connections, flow meters, sensors, switches, and transmitters on insulated pipes. Shape insulation at these connections by tapering it to and around the connection with insulating cement and finish with finishing cement, mastic, and flashing sealant.

D. Install removable insulation covers at locations indicated. Installation shall conform to the following:

1. Make removable flange and union insulation from sectional pipe insulation of same thickness as that on adjoining pipe. Install same insulation jacket as adjoining pipe insulation.
2. When flange and union covers are made from sectional pipe insulation, extend insulation from flanges or union long at least two (2) times the insulation thickness over adjacent pipe insulation on each side of flange or union. Secure flange cover in place with stainless-steel or aluminum bands. Select band material compatible with insulation and jacket.
3. Construct removable valve insulation covers in same manner as for flanges, except divide the two-part section on the vertical center line of valve body.
4. When covers are made from block insulation, make two (2) halves, each consisting of mitered blocks wired to stainless-steel fabric. Secure this wire frame, with its attached insulation, to flanges with tie wire. Extend insulation at least 2 inches over adjacent pipe insulation on each side of valve. Fill space between flange or union cover and pipe insulation with insulating cement. Finish cover assembly with insulating cement applied in two coats. After first coat is dry, apply and trowel second coat to a smooth finish.
5. Unless a PVC jacket is indicated in field-applied jacket schedules, finish exposed surfaces with a metal jacket.

3.6 INSTALLATION OF MINERAL-FIBER INSULATION

A. Insulation Installation on Straight Pipes and Tubes:

1. Secure each layer of preformed pipe insulation to pipe with wire or bands and tighten bands without deforming insulation materials.
2. Where vapor barriers are indicated, seal longitudinal seams, end joints, and protrusions with vapor-barrier mastic and joint sealant.
3. For insulation with factory-applied jackets on above-ambient surfaces, secure laps with outward clinched staples at 6 inches o.c.
4. For insulation with factory-applied jackets on below-ambient surfaces, do not staple longitudinal tabs. Instead, secure tabs with additional adhesive as recommended by insulation material manufacturer and seal with vapor-barrier mastic and flashing sealant.

B. Insulation Installation on Pipe Flanges:

1. Install preformed pipe insulation to outer diameter of pipe flange.
2. Make width of insulation section same as overall width of flange and bolts, plus twice the thickness of pipe insulation.
3. Fill voids between inner circumference of flange insulation and outer circumference of adjacent straight pipe segments with mineral-fiber blanket insulation.
4. Install jacket material with manufacturer's recommended adhesive, overlap seams at least 1 inch, and seal joints with flashing sealant.

C. Insulation Installation on Pipe Fittings and Elbows:

1. Install preformed sections of same material as straight segments of pipe insulation when available.

2. When preformed insulation elbows and fittings are not available, install mitered sections of pipe insulation, to a thickness equal to adjoining pipe insulation. Secure insulation materials with wire or bands.

D. Insulation Installation on Valves and Pipe Specialties:

1. Install preformed sections of same material as straight segments of pipe insulation when available.
2. When preformed sections are not available, install mitered sections of pipe insulation to valve body.
3. Arrange insulation to permit access to packing and to allow valve operation without disturbing insulation.
4. Install insulation to flanges as specified for flange insulation application.

3.7 FIELD-APPLIED JACKET INSTALLATION

A. Where glass-cloth jackets are indicated, install directly over bare insulation or insulation with factory-applied jackets.

1. Draw jacket smooth and tight to surface with 2-inch overlap at seams and joints.
2. Embed glass cloth between two (2) 0.062-inch-thick coats of lagging adhesive.
3. Completely encapsulate insulation with coating, leaving no exposed insulation.

B. Where FSK jackets are indicated, install as follows:

1. Draw jacket material smooth and tight.
2. Install lap or joint strips with same material as jacket.
3. Secure jacket to insulation with manufacturer's recommended adhesive.
4. Install jacket with 1½-inch laps at longitudinal seams and 3-inch-wide joint strips at end joints.
5. Seal openings, punctures, and breaks in vapor-retarder jackets and exposed insulation with vapor-barrier mastic.

C. Where PVC jackets are indicated, install with 1-inch overlap at longitudinal seams and end joints. Seal with manufacturer's recommended adhesive.

1. Apply two (2) continuous beads of adhesive to seams and joints, one bead under lap and the finish bead along seam and joint edge.

D. Where metal jackets are indicated, install with 2-inch overlap at longitudinal seams and end joints. Overlap longitudinal seams arranged to shed water. Seal end joints with weatherproof sealant recommended by insulation manufacturer. Secure jacket with stainless-steel bands 12 inches o.c. and at end joints.

3.8 FINISHES

A. Insulation with ASJ, Glass-Cloth, or Other Paintable Jacket Material: Paint jacket with paint system identified below.

1. Flat Acrylic Finish: Two (2) finish coats over a primer that is compatible with jacket material and finish coat paint. Add fungicidal agent to render fabric mildew proof.

a. Finish Coat Material: Interior, flat, latex-emulsion size.

B. Flexible Elastomeric Thermal Insulation: After adhesive has fully cured, apply two (2) coats of insulation manufacturer's recommended protective coating.

C. Color: As selected by Architect and Owner from manufacturer’s entire range. Vary first and second coats to allow visual inspection of the completed Work.

D. Do not field paint aluminum or stainless-steel jackets.

3.9 FIELD QUALITY CONTROL

A. Perform tests and inspections.

B. Tests and Inspections:

1. Inspect pipe, fittings, strainers, and valves, randomly selected by Architect, by removing field-applied jacket and insulation in layers in reverse order of their installation. Extent of inspection shall be limited to three (3) locations of straight pipe, three (3) locations of threaded fittings, three (3) locations of welded fittings, two (2) locations of threaded strainers, two (2) locations of welded strainers, three (3) locations of threaded valves, and three (3) locations of flanged valves for each pipe service defined in the "Piping Insulation Schedule, General" Article.

C. All insulation applications will be considered defective Work if sample inspection reveals noncompliance with requirements.

3.10 PIPING INSULATION SCHEDULE, GENERAL

A. Acceptable preformed pipe and tubular insulation materials and thicknesses are identified for each piping system and pipe size range. If more than one material is listed for a piping system, selection from materials listed is Contractor's option.

B. Items Not Insulated: Unless otherwise indicated, do not install insulation on the following:

1. Drainage piping located in crawl spaces.
2. Underground piping.
3. Chrome-plated pipes and fittings unless there is a potential for personnel injury.

3.11 INDOOR PIPING INSULATION SCHEDULE

A. Stormwater and Overflow:

1. All Pipe Sizes: Insulation shall be the following:

a. Mineral-Fiber, Preformed Pipe Insulation, Type I: 1-inch-thick.

B. Roof Drain and Overflow Drain Bodies:

1. All Pipe Sizes: Insulation shall be the following:

a. Mineral-Fiber, Preformed Pipe Insulation, Type I: 1-inch-thick.

3.12 INDOOR, FIELD-APPLIED JACKET SCHEDULE

A. Install jacket over insulation material. For insulation with factory-applied jacket, install the field-applied jacket over the factory-applied jacket. If more than one material is listed, selection from materials listed is Contractor's option.

B. Piping, Concealed:

1. None.

C. Piping, Exposed:

1. PVC: 20 mils thick.

END OF SECTION 220719

SECTION 221423 - STORM DRAINAGE PIPING SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Pipe, tube, and fittings.
2. Roof drains.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

1.4 QUALITY ASSURANCE

A. Drainage piping specialties shall bear label, stamp, or other markings of specified testing agency.

PART 2 - PRODUCTS

2.1 CAST-IRON PIPE AND FITTINGS

A. Pipe and Fittings: ASTM A 74, Service classes.

B. Gaskets: ASTM C 564, rubber.

C. Caulking Materials: ASTM B 29, pure lead and oakum or hemp fiber.

2.2 METAL ROOF DRAINS

A. Cast-Iron, Large-Sump, General-Purpose Roof Drains:

1. Basis-of-Design Product: Subject to compliance with requirements, provide Josam Company; **Series 21500** or comparable product by one (1) of the following:

   a. Smith, Jay R. Mfg. Co.
   b. Watts; a Watts Water Technologies company
   c. Zurn Industries, LLC

2. Standard: ASME A112.6.4, for general-purpose roof drains.
3. Body Material: Cast iron.
4. Dimension of Body: Nominal 15-inch diameter.
5. Combination Flashing Ring and Gravel Stop: Required.
6. Outlet: Bottom.
7. Extension Collars: Required.

8. Underdeck Clamp: Required.
9. Sump Receiver Plate: Required.
10. Dome Material: Cast iron.
11. Perforated Gravel Guard: Not required.
12. Vandal-Proof Dome: Required.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install piping at indicated slopes.

B. Install piping free of sags and bends.

C. Install fittings for changes in direction and branch connections.

D. Make changes in direction for storm drainage piping using appropriate branches, bends, and long-sweep bends. Do not change direction of flow more than 90 degrees. Use proper size of standard increasers and reducers if pipes of different sizes are connected. Reducing size of drainage piping in direction of flow is prohibited.

E. Install roof drains at low points of roof areas according to roof membrane manufacturer's written installation instructions.

1. Install flashing collar or flange of roof drain to prevent leakage between drain and adjoining roofing. Maintain integrity of waterproof membranes where penetrated.
2. Install expansion joints, if indicated, in roof drain outlets.
3. Position roof drains for easy access and maintenance.

3.2 PROTECTION

A. Protect drains during remainder of construction period to avoid clogging with dirt or debris and to prevent damage from traffic or construction work.

B. Place plugs in ends of uncompleted piping at end of each day or when work stops.

END OF SECTION 221423

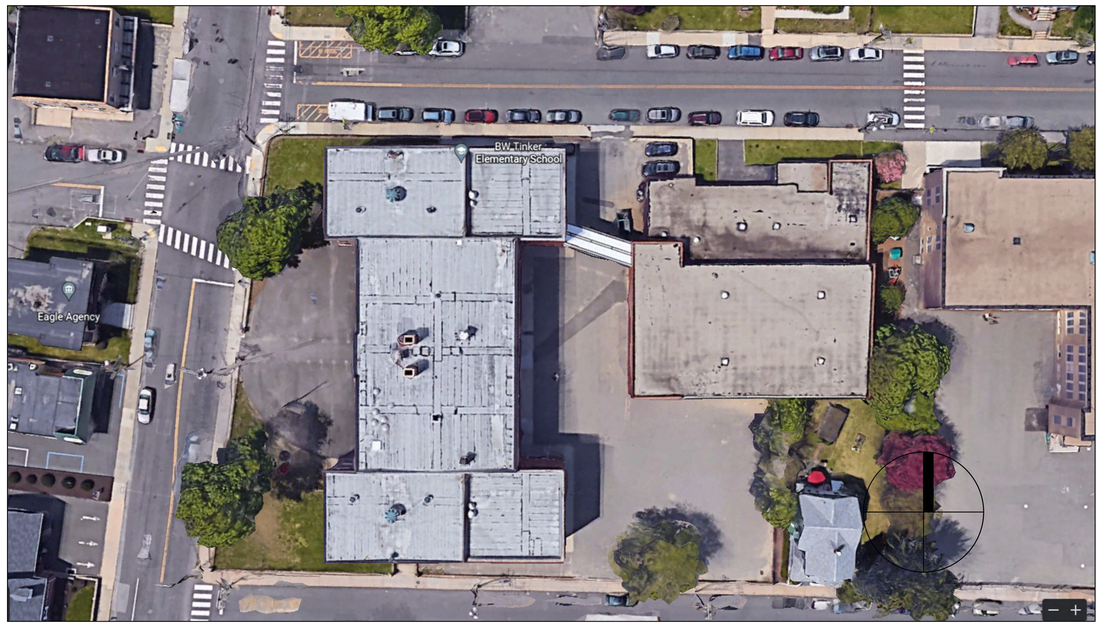
PROJECT NAME:

ROOF REPLACEMENT AT:

B.W. TINKER ELEMENTARY SCHOOL

809 HIGHLAND AVENUE
WATERBURY, CONNECTICUT 06708

PROJECT LOCATION:



DRAWING LIST

COVER SHEET

ARCHITECTURAL:

- C1 CODE INFORMATION
- A1 OVERALL ROOF PLAN
- A2 ROOF DETAILS

ARCHITECT
SILVER PETRUCELLI & ASSOC.
3190 WHITNEY AVENUE, HAMDEN CT 06518
311 STATE STREET NEW LONDON, CT 06320
PHONE 203 230 9007 silverpetrucelli.com

SILVER PETRUCELLI + ASSOCIATES

3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

CONSTRUCTION DOCUMENT SUBMISSION 03/27/2023

ISSUE FOR BID: 10/23/2023

CODE INFORMATION

DATE OF ORIGINAL CONSTRUCTION: 1925
DATE OF ADDITION:

1. GROUP CLASSIFICATION (CHAPTER 3)
   (PRIMARY): E-EDUCATIONAL
   (INCIDENTAL): A3-ASSEMBLY

2. CONSTRUCTION TYPE (CHAPTER 6)
   MINIMUM TYPE REQUIRED: 2B
   ACTUAL TYPE PROVIDED (EXISTING): --
   (NEW): 2B

3. BUILDING HEIGHT (CHAPTER 5)
   ALLOWABLE HEIGHT (STORY/FEET): 3/75'-0"
   ACTUAL HEIGHT (STORY/FEET): 1/50'-0"
   (STORIES ABOVE GRADE): 2

4. BUILDING AREA (CHAPTER 5)

   A) BUILDING AREA (FIRST)

EXISTING CONSTRUCTION	29,500	sq.ft.
NEW CONSTRUCTION	0	sq.ft.
TOTAL FLOOR	29,500	sq.ft.

   B) BUILDING AREA (SECOND)

EXISTING CONSTRUCTION	29,500	sq.ft.
NEW CONSTRUCTION	0	sq.ft.
TOTAL FLOOR	29,500	sq.ft.

   TOTAL (ALL FLOORS): 29,500 sq.ft.

5. AREA MODIFICATIONS TO TABLE 503 (FOR EACH SEPARATE BUILDING AS DEFINED BY FIRE WALLS AND/OR EXTERIOR WALLS)
   NA

6. CASE 1 - SINGLE OCCUPANCY OR NONSEPARATED USES (302.3.1)
   (ALLOWABLE AREA 506.4)
   NA

7. CASE 2 - MIXED OCCUPANCY SEPARATED USES (302.3.2)
   (ALLOWABLE AREA 506.4)
   NA

8. FIRE-RESISTANCE RATED REQUIREMENTS FOR BUILDING ELEMENTS
   (TABLE 601, SEE CODE PLANS FOR SPECIFIC DESIGNATIONS)

1 STRUCTURAL FRAME: INCLUDING COLUMNS, GIRDERS, TRUSSES	0	Hr(s)
2 BEARING WALLS: EXTERIOR (TABLE 602)	0/1	Hr(s)
INTERIOR	0	Hr(s)
3 NONBEARING WALLS & PARTITIONS EXTERIOR (TABLE 602)	0/1	Hr(s)
4 NONBEARING WALLS & PARTITIONS INTERIOR	0	Hr(s)
5 FLOOR CONSTRUCTION (INCLUDING SUPPORTING BEAMS & JOISTS)	0	Hr(s)
6 ROOF CONSTRUCTION (INCLUDING SUPPORTING BEAMS & JOISTS)	0	Hr(s)

9. OCCUPANCY LOAD

DESIGN TOTAL FOR BASEMENT	NA
TOTAL EXIT CAPACITY FOR BASEMENT	NA
DESIGN TOTAL FOR FIRST FLOOR	NA
TOTAL EXIT CAPACITY FOR FIRST FLOOR	NA
DESIGN TOTAL FOR BUILDING	NA
TOTAL EXIT CAPACITY FOR BUILDING	NA

10. MODIFICATIONS

	APPROVED	NOT APPROVED

11. ACCESSIBLE BUILDING: X DESIGNATED / NON DESIGNATED

12. MINIMUM PLUMBING FIXTURE COUNT (I.P.C. CHAPTER 4)
    FOR EACH TYPE OF OCCUPANCY PER ENTIRE FACILITY

    GROUP "A3" OCCUPANCY
    (DESIGN LOAD = NA)

	REQUIRED	PROVIDED
W/C MALE	NA	NA
W/C FEMALE	NA	NA
LAVS	NA	NA
D/F	NA	NA
W/C UNISEX	NA	NA
LAVS UNISEX	NA	NA

    GROUP "E" OCCUPANCY,
    (DESIGN LOAD = NA)

W/C	NA	NA
LAVS	NA	NA
D/F	NA	NA

    (TOTAL DESIGN LOAD FOR ENTIRE FACILITY = NA)

	YES	NO
13. ENTIRE BUILDINGS SPRINKLERED		X
14. THRESHOLD BUILDING CONDITIONS		X

15. CODES TO WHICH THIS PROJECT WAS DESIGNED

State Building Code	2021 IBC CTSBC/2022 AMEND.
State Mechanical Code	2017 ICC
State Plumbing Code	2015 IPC
State Energy Conservation Code	2015 IECC
State Electrical Code	2020 NFPA 70
State Health Code	MOST CURRENT
OSHA	MOST CURRENT
Section 504	CURRENT
ADA	MOST CURRENT
ANSI 117.1	MOST CURRENT

16. BUILDING AREAS FOR GRANT CALCULATION (ENTIRE FACILITY)

    (MEASURED TO INSIDE FACE OF EXTERIOR WALLS)

EXISTING UNRENOVATED CONSTRUCTION	0	SQ.FT.
EXISTING RENOVATED CONSTRUCTION	0	SQ.FT.
EXISTING BEING DEMOLISHED	0	SQ.FT.
TOTAL EXISTING CONSTRUCTION	29,500	SQ.FT.
TOTAL NEW CONSTRUCTION	0	SQ.FT.
TOTAL FACILITY	29,500	SQ.FT.

    OPEN AREAS (NOT INCLUDED IN TOTAL FACILITY)
    NA: NA SQ.FT.

17. TOTAL CONSTRUCTED BUILDING AREA (OUTSIDE FACE OF EXTERIOR WALLS INCLUDING OPEN AREAS ABOVE): NA SQ.FT.

FIRE SAFETY CODE DATA:

1. CLASSIFICATION OF OCCUPANCY: EDUCATIONAL/ASSEMBLY
2. MINIMUM CONSTRUCTION REQUIRED: 2B
   ACTUAL CONSTRUCTION PROVIDED: 2A
3. NOTIFICATION / ALARMS (CFSC 2005, NFPA 72, NATIONAL FIRE ALARM CODE 2002): YES X NO
4. DETECTION (CFSC 2005, NFPA 72, NATIONAL FIRE ALARM CODE 2002): YES X NO
5. EXTINGUISHMENT REQUIREMENTS (NFPA 13, 2002): YES X NO

MEANS OF EGRESS

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT IBC TABLE 1004.1.2

USE	FLOOR AREA IN S.F. PER OCCUPANT
1. CLASSROOMS	20 S.F. NET
2. SHOPS & VOCATIONAL	50 S.F. NET
3. ASSEMBLY	
WITHOUT FIXED SEATS	7 S.F. NET
TABLES AND CHAIRS	15 S.F. NET
4. PLATFORMS	15 S.F. NET
5. LIBRARY	
READING ROOMS	50 S.F. NET
STACK AREA	100 S.F. GROSS
6. LOCKER ROOMS	50 S.F. GROSS
7. MECHANICAL AREAS	300 S.F. GROSS
8. STORAGE	300 S.F. GROSS
9. BUSINESS AREAS	100 S.F. GROSS
10. Courtyards	15 S.F. NET

MAXIMUM LENGTH OF EXIT TRAVEL
1. I.B.C. TABLE 1015.1: 250 feet

SYMBOL LEGEND

- X / XX - PLAN SECTION DETAIL OR ELEVATION- SHEET NUMBER
- SL - INDICATES SLOPE DIRECTION OF TAPERED INSULATION AT ¼" PER FOOT
- SL - TAPERED INSULATION CRICKET SLOPED @ ¼" PER FOOT
- 6X / X - INDICATES SLOPE DIRECTION & INDICATES EXISTING ROOF PITCH.
- NIC. - NOT IN CONTRACT SCOPE
- WALKWAY PADS. SEE CONSTRUCTION NOTE #2
- ERD. - EXISTING ROOF DRAIN TO BE REMOVED. SEE DEMOLITION NOTES.
- NRD. - NEW ROOF DRAIN TO BE INSTALLED. SEE DETAIL A/A2
- OSC. - EMERGENCY OVERFLOW SCUPPER. SEE DETAIL B/A2
- HD. - HORIZONTAL DRAIN LEADER. SEE CONSTRUCTION NOTE #5
- MG. - METAL GUTTER. SEE DETAIL C/A2
- CB. - METAL COLLECTION BOX. SEE DETAIL D/A2
- DS. - METAL DOWNSPOUT. SEE CONSTRUCTION NOTE # 3
- VS. - EXISTING VENT STACK. SEE DETAIL F/A2
- FU. - EXISTING FAN UNIT, SEE DETAIL G/A2
- RH. - ROOF HATCH. SEE DETAIL H/A2
- EA. - EXISTING ANTENNA TO REMAIN.
- GW. - EXISTING GUIDE WIRE TO REMAIN.
- ML. - NEW METAL LADDER. SEE DETAIL N/A2
- AM. - ABANDONED MECH UNIT CURB. SEE DEMO NOTE #4
- EC. - EXIST. MASONRY CHIMNEY. SEE DETAIL K/A2

GENERAL NOTES

1. ALL FLAT ROOFS TO RECEIVE ¼" PER FOOT TAPERED RIGID INSULATION MINIMUM UNLESS OTHERWISE NOTED.
2. FIELD VERIFY ALL DIMENSIONS & PERFORM TEST CUTS AT EACH ROOF PRIOR TO THE BID.
3. ALL MATERIALS ARE NEW UNLESS OTHERWISE NOTED "EXISTING".
4. ALL WOOD BLOCKING, PLYWOOD & NAILERS TO BE PRESSURE TREATED. (P.T.)
5. ALL WOOD BLOCKING INDICATED IN DETAILS ARE TO BE ANCHORED TO THE EXISTING STRUCTURE.
6. ALL MEMBRANE FLASHING INDICATED IS TO EXTEND A MINIMUM OF 8", (VERTICAL OR HORIZONTAL)
7. CONTRACTOR IS TO SURVEY THE EXISTING ROOF DECKS W/A LEVEL (AFTER DEMOLITION) TO VERIFY THE SLOPES INDICATED ON PLAN ARE ACCURATE. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY ADDITIONAL ROOFING OPERATIONS.
8. CONTRACTOR IS TO INSPECT THE UNDERSIDE OF ALL ROOF DECKS PRIOR TO ROOFING OPERATIONS TO ENSURE THAT NO INTERIOR MATERIALS, EQUIPMENT, FINISHES OR OBJECTS WILL BE PIERCED OR DAMAGED.
9. CONTRACTOR ASSUMES ALL RESPONSIBILITY DURING PROJECT & WILL REPLACE ANY & ALL DAMAGED EQUIPMENT W/NO ADDITIONAL COST TO OWNER.
10. SITE AREAS DISTURBED SHALL BE CLEANED & RE-LEVELED, W/LAWN AREAS MAGNETICALLY RAKED TO REMOVE ANY METAL DEBRIS & RE-SEEDED AS REQUIRED TO MATCH ADJACENT CONDITIONS.
11. CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR CLEAN UP OF ROOFING MATERIALS & DEBRIS THAT PENETRATES THE INTERIOR ENVELOPE OF THE BUILDING W/NO ADDITIONAL COST TO THE OWNER.
12. SNAKE/CLEAN OUT ALL EXISTING VERTICAL & HORIZONTAL LEADERS OUT TO NEAREST MANHOLE OUTSIDE OF BUILDING.
13. ALL CRICKETS ARE TO BE SLOPED @ A MINIMUM OF ¼" PER FOOT & COORDINATE CRICKETS AROUND EXIST. HVAC UNITS AS REQUIRED TO AVOID PONDING.
14. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL & RE-INSTALLATION OF ALL HVAC UNITS INCLUDING ANY ELECTRICAL OR MECHANICAL CONNECTIONS. THIS MAY INCLUDE THE EXTENSION OF EXISTING ELECTRICAL & DUCTWORK SYSTEMS TO ACCOMMODATE NEW MECHANICAL UNIT CURBING & NEW ROOFING SYSTEM.
15. SNAKE/CLEAN OUT ALL EXISTING VENT STACKS BEFORE THE INSTALLATION OF METAL SLEEVE.
16. ALL DRAIN PIPING IS INSULATED ABOVE THE CEILINGS. THE EXACT ROUTE WILL BE DETERMINED IN THE FIELD. MAKE MINOR ADJUSTMENT IN THE ROUTE AT NO ADDITIONAL COST TO OWNER.
17. NEW ROOF INSULATION TO BE A MINIMUM OF R-30 AT ALL NEW ROOF DRAINS AND/OR THE LOW POINTS OF THE ROOF AREAS.
18. ALL ANTENNAE, CONDUITS & ANY OTHER OBJECTS TO REMAIN AFFECTED BY SCOPE OF WORK, TO BE REMOVED & REINSTALLED.

DEMOLITION NOTES (X)

1. REMOVE EXISTING FLAT METAL ROOFING SYSTEM.
2. REMOVE ALL PERIMETER METAL FLASHING WITHIN SCOPE OF WORK.
3. REMOVE EXISTING ROOF DRAINS & SUMP.
4. REMOVE EXISTING ABANDONED MECHANICAL UNIT CURB DOWN TO EXIST. DECK & ROOF OVER.

CONSTRUCTION NOTES (X)

1. CONTRACTOR TO PROVIDE A SPECIFIED QUANTITY OF EXISTING DECK REPAIR & REPLACEMENT. SEE PROJECT MANUAL.
2. WALKWAY PADS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATION. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION. COORDINATE & FINALIZE EXACT ROUTE W/ OWNER & ARCHITECT.
3. NEW METAL DOWNSPOUT, PLACE NEW CONCRETE SPLASH BLOCK AT WATER DISCHARGE. SEE PROJECT MANUAL.
4. EXISTING ELECTRICAL FIXTURE TO BE TEMPORARILY REMOVED & REINSTALLED TO ALLOW VERTICAL FLASHING TO BE INSTALLED & REINSTALLED IN EXISTING LOCATION.
5. HORIZONTAL ROOF LEADER (MATCH DIAMETER OF EXIST.) ABOVE CEILING SLOPED @ 1/8"/FT MIN.TIE VERTICAL LEADERS INTO EXIST. PIPING AS REQ'D. SEAL ALL PENETRATIONS THROUGH WALLS W/FIRE PUTTY AS REQ'D, BY CODE, PATCH & REPAIR ALL AREAS DAMAGED BY INSTALLATION OF NEW PIPING.

ROOF AREAS

ROOF "A"	2,730	SF.	ROOF "F"	310	SF.
ROOF "B"	2,016	SF.	ROOF "G"	4,270	SF.
ROOF "C"	7,586	SF.	ROOF "H"	7,533	SF.
ROOF "D"	2,730	SF.	ROOF "J"	309	SF.
ROOF "E"	2,016	SF.			

TOTAL ROOF AREAS: 29,500 SF.
THIS AREA IS APPROXIMATE- V.I.F.
IECC CODE REQUIREMENT R-VALUE MIN. R-30
CONNECTICUT ZONE 2B
CBSC REQUIREMENT : R-30 -U.0333

ROOF ASSEMBLY

OUTSIDE AIR	0.17
ROOF MEMBRANE	0.33
COVERBOARD	2.20
5" POLYISO INSUL.	29.7
EXISTING DECK	1.23
INSIDE AIR	0.61
R-VALUE TOTAL	34.24

CODE INFORMATION

USE GROUP : B
CONSTRUCTION CLASS: 2B
RISK CATEGORY #3
ULTIMATE DESIGN WIND SPEED: 135 MPH
NOMINAL DESIGN WIND SPEED: 105 MPH

FACTORY MUTUAL ENGINEERING & RESEARCH CORPORATION (FM): ROOF ASSEMBLY CLASSIFICATION OF NON-COMBUSTIBLE CONSTRUCTION, WIND UPLIFT REQUIREMENT OF I-60 FOR FIELD, I-75 FOR PERIMETER AND I-110 FOR CORNERS, IN ACCORDANCE WITH FM PROPERTY LOSS PREVENTION DATA SHEETS 1-28.

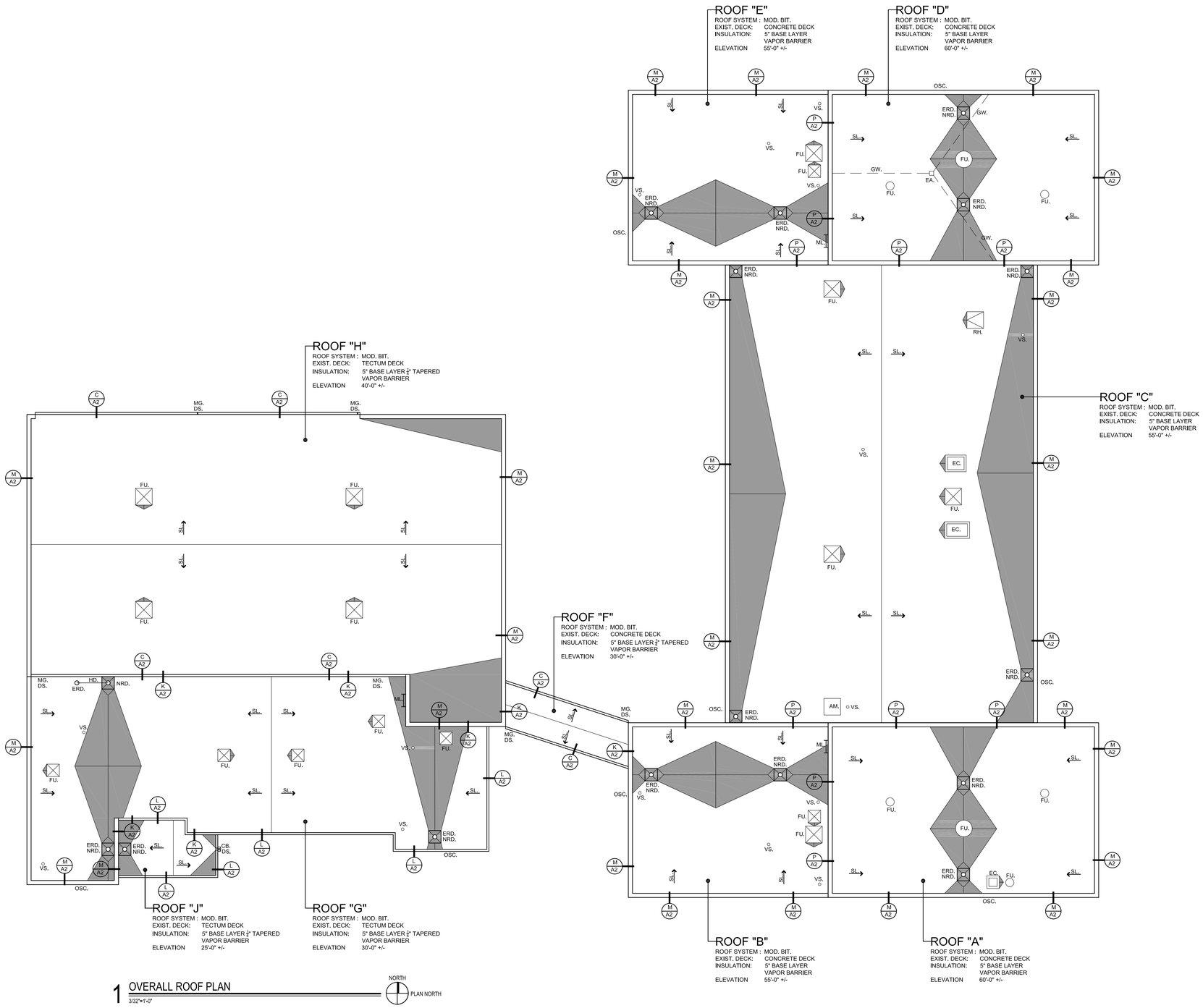
Project Title:
ROOF REPLACEMENT AT:
B.W. TINKER ELEMENTARY SCHOOL
809 HIGHLAND AVENUE
WATERBURY, CONNECTICUT 06708

SILVER PETRUCELLI + ASSOCIATES
3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	-	-	

Drawing Title:
CODE INFORMATION
STATE PROJECT 151-0309 RR

Date: 03/28/2023
Scale: NONE
Drawn By: K.LINSLEY
Project Number: 22.059
Drawing Number: C1



1 OVERALL ROOF PLAN
3/32"=1'-0"

NORTH
PLAN NORTH

SYMBOL LEGEND

- X / XX - PLAN SECTION DETAIL OR ELEVATION- SHEET NUMBER
- SL. - INDICATES SLOPE DIRECTION OF TAPERED INSULATION AT 1/4" PER FOOT
- SL. - TAPERED INSULATION CRICKET SLOPED @ 1/4" PER FOOT
- @X / X - INDICATES SLOPE DIRECTION & INDICATES EXISTING ROOF PITCH.
- NIC. - NOT IN CONTRACT SCOPE
- WALKWAY PADS. SEE CONSTRUCTION NOTE #2
- ERD. - EXISTING ROOF DRAIN TO BE REMOVED. SEE DEMOLITION NOTES.
- NRD. - NEW ROOF DRAIN TO BE INSTALLED. SEE DETAIL A/A2
- OSC. - EMERGENCY OVERFLOW SCUPPER. SEE DETAIL B/A2
- HD. - HORIZONTAL DRAIN LEADER. SEE CONSTRUCTION NOTE #5
- MG. - METAL GUTTER. SEE DETAIL C/A2
- CB. - METAL COLLECTION BOX. SEE DETAIL D/A2
- DS. - METAL DOWNSPOUT. SEE CONSTRUCTION NOTE # 3
- VS. - EXISTING VENT STACK. SEE DETAIL F/A2
- FU. - EXISTING FAN UNIT. SEE DETAIL G/A2
- RH. - ROOF HATCH. SEE DETAIL H/A2
- EA. - EXISTING ANTENNA TO REMAIN.
- GW. - EXISTING GUIDE WIRE TO REMAIN.
- ML. - NEW METAL LADDER. SEE DETAIL N/A2
- AM. - ABANDONED MECH UNIT CURB. SEE DEMO NOTE #4
- EC. - EXIST, MASONRY CHIMNEY. SEE DETAIL K/A2

GENERAL NOTES

1. ALL FLAT ROOFS TO RECEIVE 1/4" PER FOOT TAPERED RIGID INSULATION MINIMUM UNLESS OTHERWISE NOTED.
2. FIELD VERIFY ALL DIMENSIONS & PERFORM TEST CUTS AT EACH ROOF PRIOR TO THE BID.
3. ALL MATERIALS ARE NEW UNLESS OTHERWISE NOTED "EXISTING",
4. ALL WOOD BLOCKING, PLYWOOD & NAILERS TO BE PRESSURE TREATED. (P.T.)
5. ALL WOOD BLOCKING INDICATED IN DETAILS ARE TO BE ANCHORED TO THE EXISTING STRUCTURE.
6. ALL MEMBRANE FLASHING INDICATED IS TO EXTEND A MINIMUM OF 8". (VERTICAL OR HORIZONTAL)
7. CONTRACTOR IS TO SURVEY THE EXISTING ROOF DECKS W/A LEVEL (AFTER DEMOLITION) TO VERIFY THE SLOPES INDICATED ON PLAN ARE ACCURATE. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY ADDITIONAL ROOFING OPERATIONS.
8. CONTRACTOR IS TO INSPECT THE UNDERSIDE OF ALL ROOF DECKS PRIOR TO ROOFING OPERATIONS TO ENSURE THAT NO INTERIOR MATERIALS, EQUIPMENT, FINISHES OR OBJECTS WILL BE PIERCED OR DAMAGED.
9. CONTRACTOR ASSUMES ALL RESPONSIBILITY DURING PROJECT & WILL REPLACE ANY & ALL DAMAGED EQUIPMENT W/NO ADDITIONAL COST TO OWNER.
10. SITE AREAS DISTURBED SHALL BE CLEANED & RE-LEVELED, W/LAWN AREAS MAGNETICALLY RAKED TO REMOVE ANY METAL DEBRIS & RE-SEEDED AS REQUIRED TO MATCH ADJACENT CONDITIONS.
11. CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR CLEAN UP OF ROOFING MATERIALS & DEBRIS THAT PENETRATES THE INTERIOR ENVELOPE OF THE BUILDING W/NO ADDITIONAL COST TO THE OWNER.
12. SNAKE/CLEAN OUT ALL EXISTING VERTICAL & HORIZONTAL LEADERS OUT TO NEAREST MANHOLE OUTSIDE OF BUILDING.
13. ALL CRICKETS ARE TO BE SLOPED @ A MINIMUM OF 1/4" PER FOOT & COORDINATE CRICKETS AROUND EXIST. HVAC UNITS AS REQUIRED TO AVOID PONDING.
14. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL & RE-INSTALLATION OF ALL HVAC UNITS INCLUDING ANY ELECTRICAL OR MECHANICAL CONNECTIONS. THIS MAY INCLUDE THE EXTENSION OF EXISTING ELECTRICAL & DUCTWORK SYSTEMS TO ACCOMMODATE NEW MECHANICAL UNIT CURBING & NEW ROOFING SYSTEM.
15. SNAKE/CLEAN OUT ALL EXISTING VENT STACKS BEFORE THE INSTALLATION OF METAL SLEEVE.
16. ALL DRAIN PIPING IS INSULATED ABOVE THE CEILINGS. THE EXACT ROUTE WILL BE DETERMINED IN THE FIELD, MAKE MINOR ADJUSTMENT IN THE ROUTE AT NO ADDITIONAL COST TO OWNER.
17. NEW ROOF INSULATION TO BE A MINIMUM OF R-30 AT ALL NEW ROOF DRAINS AND/OR THE LOW POINTS OF THE ROOF AREAS.
18. ALL ANTENNAE, CONDUITS & ANY OTHER OBJECTS TO REMAIN AFFECTED BY SCOPE OF WORK, TO BE REMOVED & REINSTALLED.

DEMOLITION NOTES (X)

1. REMOVE EXISTING FLAT METAL ROOFING SYSTEM.
2. REMOVE ALL PERIMETER METAL FLASHING WITHIN SCOPE OF WORK.
3. REMOVE EXISTING ROOF DRAINS & SUMP.
4. REMOVE EXISTING ABANDONED MECHANICAL UNIT CURB DOWN TO EXIST. DECK & ROOF OVER.

CONSTRUCTION NOTES (X)

1. CONTRACTOR TO PROVIDE A SPECIFIED QUANTITY OF EXISTING DECK REPAIR & REPLACEMENT. SEE PROJECT MANUAL.
2. WALKWAY PADS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATION. SEE PROJECT MANUAL FOR ADDITIONAL INFORMATION, COORDINATE & FINALIZE EXACT ROUTE W/ OWNER & ARCHITECT.
3. NEW METAL DOWNSPOUT, PLACE NEW CONCRETE SPLASH BLOCK AT WATER DISCHARGE. SEE PROJECT MANUAL.
4. EXISTING ELECTRICAL FIXTURE TO BE TEMPORARILY REMOVED & REINSTALLED TO ALLOW VERTICAL FLASHING TO BE INSTALLED & REINSTALLED IN EXISTING LOCATION.
5. HORIZONTAL ROOF LEADER (MATCH DIAMETER OF EXIST.) ABOVE CEILING SLOPED @ 1/8"/FT MIN.TIE VERTICAL LEADERS INTO EXIST. PIPING AS REQ'D. SEAL ALL PENETRATIONS THROUGH WALLS W/FIRE PUTTY AS REQ'D. BY CODE. PATCH & REPAIR ALL AREAS DAMAGED BY INSTALLATION OF NEW PIPING.

ROOF AREAS

ROOF "A"	2,730	SF.	ROOF "F"	310	SF.
ROOF "B"	2,016	SF.	ROOF "G"	4,270	SF.
ROOF "C"	7,586	SF.	ROOF "H"	7,533	SF.
ROOF "D"	2,730	SF.	ROOF "J"	309	SF.
ROOF "E"	2,016	SF.			

TOTAL ROOF AREAS: 29,500 SF.
THIS AREA IS APPROXIMATE- V.I.F.
IECC CODE REQUIREMENT R-VALUE MIN. R-30
CONNECTICUT ZONE 2B
CBSC REQUIREMENT : R-30 -U.0333

ROOF ASSEMBLY

OUTSIDE AIR	0.17
ROOF MEMBRANE	0.33
COVERBOARD	2.20
5" POLYISO INSUL.	29.7
EXISTING DECK	1.23
INSIDE AIR	0.61
R-VALUE TOTAL	34.24

CODE INFORMATION

USE GROUP : B
CONSTRUCTION CLASS: 2B
RISK CATEGORY #3
ULTIMATE DESIGN WIND SPEED: 135 MPH
NOMINAL DESIGN WIND SPEED: 105 MPH

FACTORY MUTUAL ENGINEERING & RESEARCH CORPORATION (FM): ROOF ASSEMBLY CLASSIFICATION OF NON-COMBUSTIBLE CONSTRUCTION. WIND UPLIFT REQUIREMENT OF I-60 FOR FIELD, I-75 FOR PERIMETER AND I-110 FOR CORNERS, IN ACCORDANCE WITH FM PROPERTY LOSS PREVENTION DATA SHEETS 1-28.

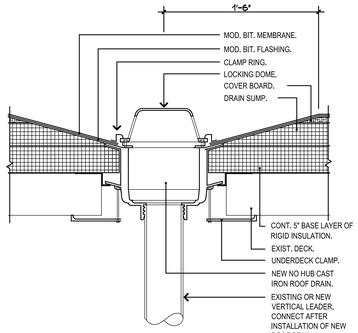
Project Title:
ROOF REPLACEMENT AT:
B.W. TINKER ELEMENTARY SCHOOL
809 HIGHLAND AVENUE
WATERBURY, CONNECTICUT 06708

SILVER PETRUCELLI + ASSOCIATES
3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	-	-	

Drawing Title:
OVERALL ROOF PLAN
STATE PROJECT 151-0309 RR

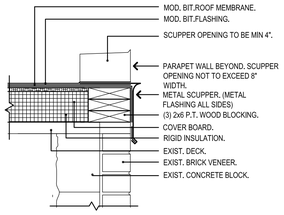
Date: 03/28/2023
Scale: 3/32"=1'-0"
Drawn By: K.LINSLEY
Project Number: 22.059
Drawing Number: A1



ROOF DRAIN DETAIL

SCALE: 1 1/2" = 1'-0"

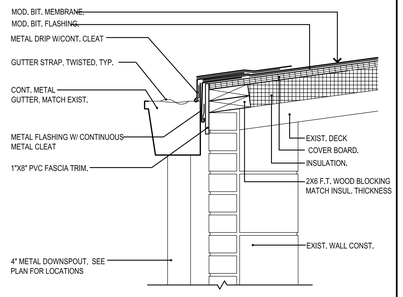
A / A2



EMERGENCY OVERFLOW SCUPPER

SCALE: 1 1/2" = 1'-0"

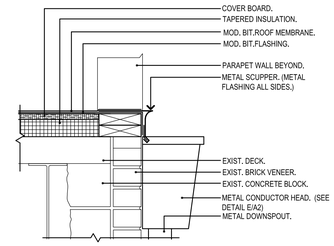
B / A2



GUTTER DETAIL

SCALE: 1 1/2" = 1'-0"

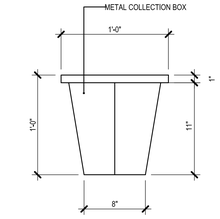
C / A2



COLLECTION BOX DETAIL

SCALE: 1 1/2" = 1'-0"

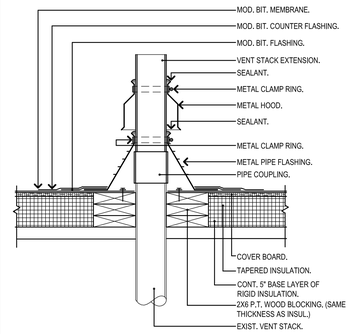
D / A2



CONDUCTOR HEAD DETAIL

SCALE: 1 1/2" = 1'-0"

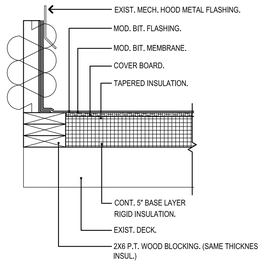
E / A2



VENT STACK DETAIL

SCALE: 1 1/2" = 1'-0"

F / A2

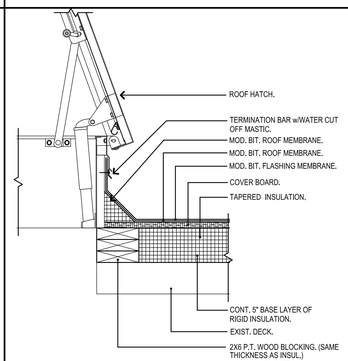


NOTE:
EXIST. MECHANICAL UNIT TO BE REMOVED & REINSTALLED AS REQUIRED FOR NEW CURB & ROOFING OPERATIONS. EXTEND ALL ELECTRICAL WIRING & DUCTWORK AS REQUIRED.

ROOF EXHAUST FAN DETAIL

SCALE: 1 1/2" = 1'-0"

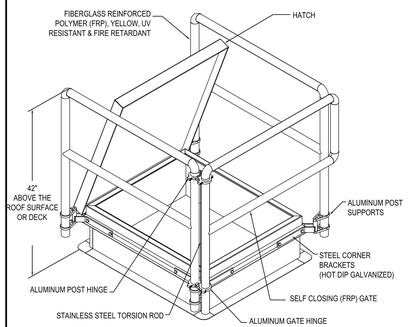
G / A2



ROOF HATCH DETAIL

SCALE: 1 1/2" = 1'-0"

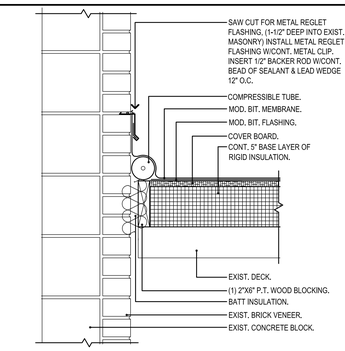
H / A2



ROOF HATCH SAFETY DETAIL

SCALE: 1 1/2" = 1'-0"

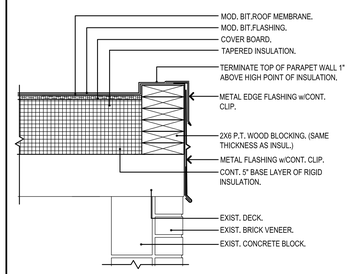
J / A2



REGLET DETAIL

SCALE: 1 1/2" = 1'-0"

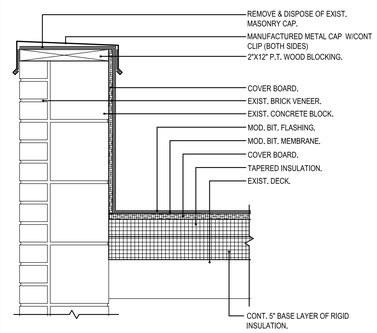
K / A2



EDGE DETAIL

SCALE: 1 1/2" = 1'-0"

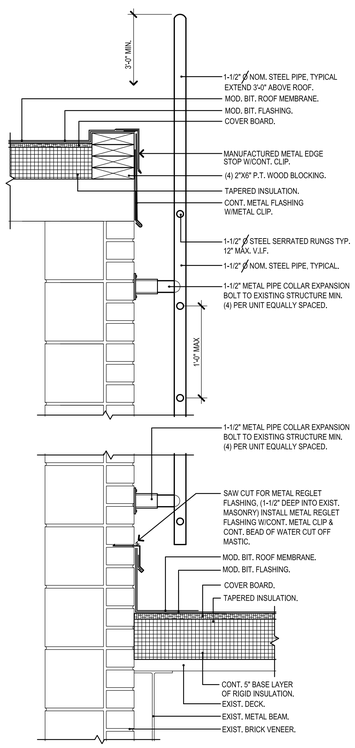
L / A2



PARAPET WALL DETAIL

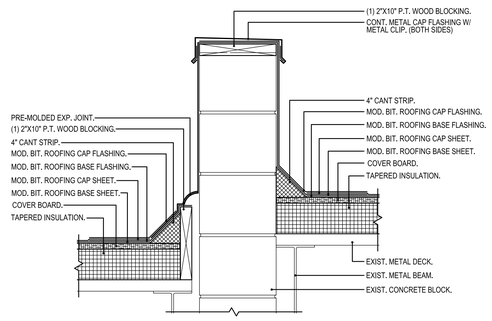
SCALE: 1 1/2" = 1'-0"

M / A2



LADDER DETAIL

N / A2



PARAPET WALL DETAIL

SCALE: 1 1/2" = 1'-0"

P / A2

Project Title:

ROOF REPLACEMENT AT:

B.W. TINKER ELEMENTARY SCHOOL

809 HIGHLAND AVENUE
WATERBURY, CONNECTICUT 06708

SILVER PETRUCELLI + ASSOCIATES

3190 WHITNEY AVENUE HAMDEN CT 06518
311 STATE STREET NEW LONDON CT 06320
203 230 9007 silverpetrucelli.com

Revision:	Description:	Date:	Revised By:
	-	-	

Drawing Title:

ROOF DETAILS

STATE PROJECT 151-0309 RR

Date: 03/27/2023
Scale: 1-1/2"=1'-0"
Drawn By: K.LINSLEY
Project Number: 22.059

Drawing Number: A2

MAUREEN McCAULEY
ASSISTANT DIRECTOR OF PURCHASING



OFFICE OF THE DIRECTOR OF PURCHASING
THE CITY OF WATERBURY
CONNECTICUT

ADDENDUM #1

January 26, 2024

RFP 7931 Tinker Elementary School Roof Replacement; Project 151-0309RR

All proposals of the above captioned project are hereby notified that the Contract Documents for the above referenced project are amended as noted in this Addendum No. 1. This Addendum shall be part of the Contract Documents for the above referenced project as provided in the Request for Proposal.

Receipt of this Addendum shall be acknowledged in writing on the form included in Attachment C of the RFP. Failure to do so may subject Proposer to disqualification.

The Contract Documents are hereby amended as follows:

General Information:
The Contractor must obtain their own required building permits at no additional charge to the Owner.

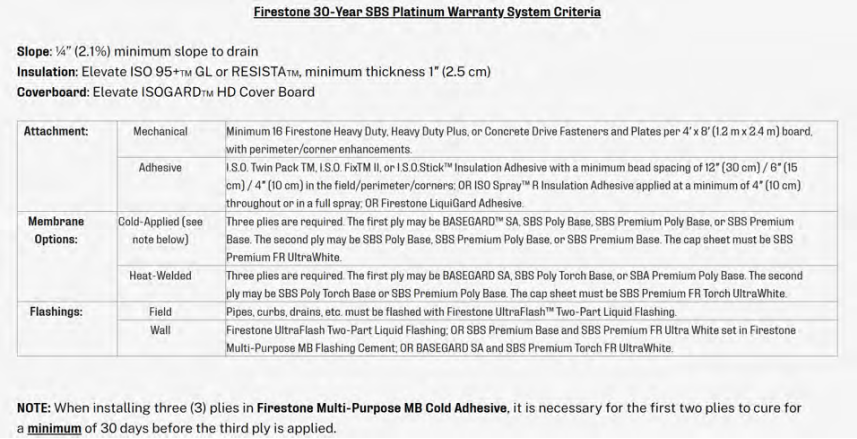
Please refer to the questions and answers below.

Question: Specs mention walkway pads, plans do not show walkway pads. Are we to include?
Answer: Provide walkway pads around all entry points, all mechanical equipment per manufacturers recommendation to maintain the warranty.

Question: There is a discrepancy between the Insurance Requirements listed in Attachment D versus the Sample Contract, which is correct?
Answer: Please see attached updated Attachment D, which is correct and supersedes any previously published insurance requirements.

235 GRAND STREET • WATERBURY, CONNECTICUT 06702 • PHONE: (203) 574-6749 • FAX: (203) 597-3437

Question: Membrane MFG require 2 base sheets and a cap to achieve a 30yr warranty. How should we price?



Firestone 30-Year SBS Platinum Warranty System Criteria

Slope: ¼" (2.1%) minimum slope to drain
Insulation: Elevate ISO 95+™ GL or RESISTA™, minimum thickness 1" (2.5 cm)
Coverboard: Elevate ISOGARD™ HD Cover Board

Attachment:	Mechanical	Minimum 16 Firestone Heavy Duty, Heavy Duty Plus, or Concrete Drive Fasteners and Plates per 4' x 8' (1.2 m x 2.4 m) board, with perimeter/corner enhancements.
	Adhesive	I.S.O. Twin Pack TM, I.S.O. FixTM II, or I.S.O.Stick™ Insulation Adhesive with a minimum bead spacing of 12" (30 cm) / 6" (15 cm) / 4" (10 cm) in the field/perimeter/corners; OR ISO Spray™ R Insulation Adhesive applied at a minimum of 4" (10 cm) throughout or in a full spray; OR Firestone LiquiGard Adhesive.
Membrane Options:	Cold-Applied (see note below)	Three plies are required. The first ply may be BASEGARD™ SA, SBS Poly Base, SBS Premium Poly Base, or SBS Premium Base. The second ply may be SBS Poly Base, SBS Premium Poly Base, or SBS Premium Base. The cap sheet must be SBS Premium FR UltraWhite.
	Heat-Welded	Three plies are required. The first ply may be BASEGARD SA, SBS Poly Torch Base, or SBA Premium Poly Base. The second ply may be SBS Poly Torch Base or SBS Premium Poly Base. The cap sheet must be SBS Premium FR Torch UltraWhite.
Flashings:	Field	Pipes, curbs, drains, etc. must be flashed with Firestone UltraFlash™ Two-Part Liquid Flashing.
	Wall	Firestone UltraFlash Two-Part Liquid Flashing; OR SBS Premium Base and SBS Premium FR Ultra White set in Firestone Multi-Purpose MB Flashing Cement; OR BASEGARD SA and SBS Premium Torch FR UltraWhite.

NOTE: When installing three (3) plies in **Firestone Multi-Purpose MB Cold Adhesive**, it is necessary for the first two plies to cure for a **minimum** of 30 days before the third ply is applied.

Answer: We require a 30 year warranty, the number of sheets is at the direction of the manufacturer.

NOTE: Each Proposal over $50,000.00 submitted shall be accompanied by a Proposal Security (a Certified Check or Bid Bond) in the amount of ten (10) percent of the Total Proposal Price.

END OF ADDENDUM 1

Thank you.

Maureen McCauley

Assistant Director of Purchasing – City of Waterbury

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Tinker Elementary School Roof Replacement
RFP# 7931
Project 151-0309RR

Attachment D
Insurance Requirements- Corrected 1/26/2024

Contractor/Vendor shall agree to maintain in force at all times during the contract the following minimum coverages and shall name the City of Waterbury and the Waterbury Board of Education as Additional Insured on a primary and non-contributory basis to all policies, except Workers Compensation. All policies should also include a Waiver of Subrogation. Insurance shall be written with Carriers approved in the State of Connecticut and with a minimum AM Best's rating of "A"VIII.

If any policy is written on a "Claims Made" basis, the policy must be continually renewed for a minimum of two (2) years from the completion date of this contract. If the policy is replaced and/or the retroactive date is changed, then the expiring policy must be endorsed to extend the reporting period for claims for the policy in effect during the contract for two (2) years from the completion date.

Original, completed Certificates of Insurance must be presented to the City of Waterbury and the Waterbury Board of Education prior to contract issuance. Contractor/Vendor agrees to provide replacement/renewal certificates at least 30 days prior to the expiration date of the policies. Should any of the above described policies be cancelled, limits reduced or coverage altered, 30 days written notice must be given to the City of Waterbury and the Waterbury Board of Education.

General Liability:	**$1,000,000 each Occurrence** **$2,000,000 General Aggregate** **$2,000,000 Products/ Completed Operations Aggregate**
Auto Liability:	**$1,000,000 Combined Single Limit each Accident** **Any Auto, All Owned and Hired Autos**
Workers Compensation:	**WC Statutory Limits** **Employer Liability (EL)** **$1,000,000 EL each Accident** **$1,000,000 EL Disease each Employee** **$1,000,000 EL Disease Policy Limits**
Excess/Umbrella Liability:	**$2,000,000 each Occurrence** **$2,000,000 Aggregate**

Wording for Additional Insured Endorsement and Waiver of Subrogation:
The City Waterbury and its Board of Education is listed as an Additional Insured on a primary and non-contributory basis on all policies except Workers Compensation. All policies shall include a Waiver of Subrogation.

MAUREEN McCAULEY
ASSISTANT DIRECTOR OF PURCHASING



OFFICE OF THE DIRECTOR OF PURCHASING
THE CITY OF WATERBURY
CONNECTICUT

ADDENDUM #2

February 1, 2024

RFP 7931 Tinker Elementary School Roof Replacement; Project 151-0309RR

All proposals of the above captioned project are hereby notified that the Contract Documents for the above referenced project are amended as noted in this Addendum No. 2. This Addendum shall be part of the Contract Documents for the above referenced project as provided in the Request for Proposal.

Receipt of this Addendum shall be acknowledged in writing on the form included in Attachment C of the RFP. Failure to do so may subject Proposer to disqualification.

The Contract Documents are hereby amended as follows:

1) The due date to submit proposals has been extended to 10:30AM on February 7, 2024.

2) Permits are required. However, City building fees are waived for this project.

3) Note: As per Article M of the RFP document, State Set Aside requirements DO apply to this project.

NOTE: Each Proposal over $50,000.00 submitted shall be accompanied by a Proposal Security (a Certified Check or Bid Bond) in the amount of ten (10) percent of the Total Proposal Price.

Thank you.

Maureen McCauley

Assistant Director of Purchasing – City of Waterbury

235 GRAND STREET • WATERBURY, CONNECTICUT 06702 • PHONE: (203) 574-6749 • FAX: (203) 597-3437

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
CONTRACT COMPLIANCE REGULATIONS
NOTIFICATION TO BIDDERS

(Revised 09/3/15)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

(a) the bidder's success in implementing an affirmative action plan;
(b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
(c) the bidder's promise to develop and implement a successful affirmative action plan;
(d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
(e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following BIDDER CONTRACT COMPLIANCE MONITORING REPORT must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists,systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category..

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

White (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East. Black(not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa. Hispanic- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.	Asian or Pacific Islander- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa. American Indian or Alaskan Native- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.

BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

Company Name Street Address City & State Chief Executive	Bidder Federal Employer Identification Number _____ Or Social Security Number_____
Major Business Activity (brief description)	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. Yes __No __ -Bidder is a minority business enterprise Yes __No __ (If yes, check ownership category) Black ___ Hispanic___ Asian American___ American Indian/Alaskan Native ___Iberian Peninsula___ Individual(s) with a Physical Disability___ Female ___
Bidder Parent Company (If any)	- Bidder is certified as above by State of CT Yes__ No__
Other Locations in Ct. (If any)	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes__ No__	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes__ No__
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? Yes__ No__	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes__ No__
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? Yes__ No__	9. Does your company have a mandatory retirement age for all employees? Yes__ No__
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes __No __	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? Yes__ No__ NA__
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes __No __	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes __No __NA __
6. Does your company have a collective bargaining agreement with workers? Yes__ No__ 6a. If yes, do the collective bargaining agreements contain non-discrim ination clauses covering all workers? Yes__ No__ 6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? Yes__ No__	12. Does your company have a written affirmative action Plan? Yes __No __ If no, please explain. 13. Is there a person in your company who is responsible for equal employment opportunity? Yes __No __ If yes, give name and phone number. _____

Part III - Bidder Subcontracting Practices

1. Will the work of this contract include subcontractors or suppliers? Yes__ No___

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above? Yes__ No__

PART IV - Bidder Employment Information

Date:

JOB CATEGORY *	OVERALL TOTALS	WHITE (not of Hispanic origin)		BLACK (not of Hispanic origin)		HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)				2. Check (X) any of the below listed requirements that you use as a hiring qualification (X)		3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination
SOURCE	YES	NO	% of applicants provided by source			
State Employment Service					Work Experience	
Private Employment Agencies					Ability to Speak or Write English	
Schools and Colleges					Written Tests	
Newspaper Advertisement					High School Diploma	
Walk Ins					College Degree	
Present Employees					Union Membership	
Labor Organizations					Personal Recommendation	
Minority/Community Organizations					Height or Weight	
Others (please identify)					Car Ownership	
					Arrest Record	
					Wage Garnishments	

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)

SILKTOWN ROOFING
MANCHESTER, CT

COPY

PROPOSER INFORMATION

a. Firm Name:	*Silktown Roofing, Inc.*
b. Main Office Address:	*27 Pleasant Street, Manchester, CT 06040*
c. Date Organized:	*February 1984*
d. Legal Form of Ownership:	*Corporation; Incorporated in Connecticut*
e. How many Years Have you been Engaged in services:	*40 years*
f. Names/Titles of Reporting relationships And principal Members:	*John C. McConville, President* *Megan Giromalo, Vice President* *Joan K. McConville, Corp. Secretary* *(See Attached Resumes)*

COPY

27 Pleasant Street ❖ Manchester, Connecticut 06040
860-647-0198 ❖ Fax 860-646-0775
www.silktownroofing.com

SILKTOWN ROOFING
MANCHESTER, CT

ABOUT SILKTOWN

Silktown Roofing is a full-service roofing and waterproofing contractor offering a commitment to service unmatched in the roofing industry. From the largest new construction projects, replacement on existing roofing systems, waterproofing and damp proofing projects, aggressive preventive maintenance for the entire building envelope, and the unexpected emergency leak repair, Silktown Roofing demonstrates the highest level of professional workmanship.

Silktown Roofing, Inc. is a Connecticut corporation, lead by John McConville and incorporated in 1992. Silktown Roofing was founded in 1984 by John with just 6 employees, a couple of trucks, our integrity, and a commitment to build relationships with commercial and industrial customers through service. Since then, we have built a solid reputation, enjoyed steady growth, and achieved recognition from all major roofing material manufacturers for the quality of installation and maintenance of their roofing and waterproofing systems, and our excellence in workmanship.

Now with over 300 employees, our original values of quality workmanship and our commitment to customer service are still our top priority.

We specialize in commercial and industrial roofing and waterproofing applications including, but not limited to, built-up, single-ply, tile, slate, shingles, metal, and all types of waterproofing for the entire building envelope.

All projects, from minor repairs to re-roofing and new roof installations, are dealt with in the same professional manner. Our team of trained roofing professionals tend to each detail of the project and stay in constant communication with our customers from the beginning and throughout the life of each particular system that we work on. We pride ourselves for both Quality and Reliability - the traits our clients have told us were the most important factors in choosing us as their roofing contractor.

Over the years we have continued to upgrade our business with new technology. We have fully computerized accounting, inventory, estimating, project management tracking, and preventive maintenance scheduling systems. These systems assist us in tracking and maintaining every detail of our customers new and existing roofing and waterproofing assets.

We invest in state-of-the-art equipment for the removal and installation of the roofing and waterproofing systems that we work with. We have specialized cranes, high-powered vacuum systems, our own fleet of tractor trailer dump box trailers, rough terrain fork lifts, motorized material handling equipment, and fume recovery systems installed on our asphalt kettles.

We only use warranted materials that have achieved consistent superior performance and inspection ratings. Silktown's professional craftsmen only install products to the manufacturers, or the National Roofing Contractors Associations (NRCA) roofing and waterproofing details.

27 Pleasant Street ❖ Manchester, Connecticut 06040
860-647-0198 ❖ Fax 860-646-0775
www.silktownroofing.com

SILKTOWN ROOFING
MANCHESTER, CT

Continued

Silktown Roofing's safety policies go above and beyond the local state and federal Department of Labor Occupational Safety & Health Administration (OSHA) guidelines. We know that the safety of our customers and our associates comes first. From the first day of hire, our associates attend our safety orientation meeting and are mandated to attend our ongoing weekly safety meetings. We continuously analyze and provide our associates with site specific job and duty hazard analysis that educates and promotes the prevention of accidents into every task that we perform.

With three offices in New England Corporate Office in Manchester, CT (covering eastern Connecticut and Western Massachusetts) and satellite offices in Derby, CT (covering western Connecticut and New York) , and Douglas, MA (covering eastern Massachusetts and Rhode Island) , Silktown can provide timely and cost effective roofing and waterproofing services to customers that have one or several properties in the region.

As we have grown in the size of our organization, and with the confidence of our customers, we have also strengthened our commitment to be responsible corporate citizens. We continue to invest in the education, training, and recruitment of men and women to become professionals in the roofing and waterproofing industry.

At Silktown Roofing, we are proud of who we are and the accomplishments we have achieved. We know that our commitment to service and quality workmanship has made us stand out as the premier contractor of choice. We have built successful relationships with our customers, and they have come to depend on us to continue assisting them in the protection and maintenance of their property and assets.

For all eastern Connecticut and Western Massachusetts contracts, please contact Kevin McGrath, 27 Pleasant Street, Manchester, CT 06040

For all western Connecticut and New York contracts, please contact John Morrissey, 151 Water Street, Derby, CT 06418

For all eastern Massachusetts and Rhode Island contracts please contact Jason Woz, 100 Davis Street, Douglas, MA 01516

SILKTOWN ROOFING
MANCHESTER, CT

JOHN C. McCONVILLE – PRESIDENT

1974 – 1981: McConville Roofing - VP and Superintendent
1981 – 1984: Hartford Roofing, Inc. – Project Superintendent
1984 – Present: Silktown Roofing, Inc. – President

As President of the Corporation, John oversees the everyday workings of the company with the help of the PM's and project superintendents. John believes in hands-on leadership and can be found on jobsites on a regular basis. He is an integral part of each project beginning with the bidding process. John is asked by many Architects/GC's/Owners to help design, value engineer and estimate projects for budget purposes. He is an active board member for the Local Roofer's and Sheet Metal Unions so that he is aware of labor issues and can protect his work force. Before becoming a Union Contractor, John instituted the first non-union roofing Apprenticeship Program in the State of CT in 1990.
While John is involved in all projects, below is a partial list of Silktown customers/projects:

Medical: VA Hospital-Rocky Hill, Gaylord Hospital UCONN Medical Center, Gerber Scientific, Neurogen, Ensign-Bickford, American School for the Deaf, Cedar Crest, Wm. Backus, Hartford, and New Britain Hospitals, SMHA

Corporate: Pepsi, PlasPak, Bozzutto's, Travelers Insurance, Bradlees, Sears, C&S Wholesale Refrigeration, Pfizer, Home Depot, USPS, ESPN, Unilever, Ramada Inn, Foxwood Casino, Mohegan Sun Casino and Hotel, MGM Grand at Foxwoods, Parker Hannifin, Quinnipiac Yale and Wesleyan Universities, Culbro, Hartford Insurance, UTC, Pratt & Whitney, Sikorsky, CIGNA, Lucent Technologies, Stop & Shop, SNET, Rockbestos, Solutia, Fleet Bank, Trinity Episcopal Church, Mt. Saint Alphonsus (NY), Kohler Mix, Caval Tool, Real Art Ways, DOW Chemical, Bayer Corp, Warner Lambert, Nordstrom, Fidelity Investments

Government/Municipal: FAA, Bradley Int'l Airport, Hanscom AF Base, Osborn Correctional Center, Barnes ANG, Murphy Terminal Weather Service & Control Tower- BDL, UConn, CCSU, UMass, Naugatuck CTC, Numerous High Schools in CT and MA, Naval Base-Newport, RI, CT Convention Center, GSA-Murphy Building-Waltham MA, US Coast Guard, CT & MA National Guard, Manchester, Hamden, East Hartford and Manchester, Numerous Town Facilities such as library, fire, police in Connecticut, Massachusetts, Rhode Island and New York.

PV Projects/Green Roof: NAVCC-Culpepper, VA, East Lyme High School, CT, Naugatuck High School, CT, New Britain High School, CT, Plainville High School, CT, Louis Toffolan Elementay School, CT, GSA Murphy Bldg., MA

27 Pleasant Street ~ Manchester, CT 06040
O: 860-647-0198 ~ F: 860-646-0775
Affirmative Action/Equal Opportunity Employer

MEGAN MCCONVILLE GIROLAMO
81 Island Avenue ♦ Madison, CT 06443 ♦ (860) 818-2184 ♦ meg.girolamo@gmail.com

SUMMARY

Accomplished and fiercely motivated Vice President with 12 years' experience in the Commercial Construction industry. Expertise includes tactical business leadership and an efficiency-orientated approach to streamlining and ensuring alignment for all integrations company-wide. Successful collaboration with senior stakeholders to effectively prioritize business activities to achieve defined objectives translating to accomplishments companywide. Successful management of a large team via allowing each individual to thrive, grow and contribute. A high integrity individual with a strong work ethic seeking to constantly continue to drive the bottom-line difference within a company.

PROFESSIONAL EXPERIENCE

Silktown Roofing, Inc.: August 2020-Current
Vice President

- Oversee all finance, human resource and project management operations
- Develop streamlining and software integrations to improve efficiency and communications between the internal departments using Foundation Software (all modules)
- Analyze all job estimates and establish rolling budgets and real-time job cost tracking for all projects
- Manage all Work-In-Progress reporting for financial analysis and general ledger adjustments
- Liaise between all Project Managers, Superintendents and Executives on project deliverables
- Oversee financial reporting and financial statement preparation working directly with CPA for all audited financial activities
- Provide support for all Affirmative Action/Equal Opportunity Employment initiatives and required reporting
- Prepare and review insurance buyouts and Workers Comp/GL annual audit processes
- Ensure job flow efficiencies between all departments
- Provide buyout analysis for estimators/project managers for support in the most competitive bid opportunities
- Manage the employee benefit package renewals
- Participate on the 401K Steering Committee and enforce deliverables for Silktown Roofing, Inc.'s retirement planning for employees
- Manage internal inventory and quality control
- Liaise with the Bonding Company, Banking Executives and all other third-party partners to Silktown Roofing, Inc.
- Lead all hiring initiatives, interviews and onboarding of new employees
- Coordinate and support all internal developmental projects and oversee the designated teams

Offshore Construction, Inc.: November 2010-August 2020
President

- Oversee all production and maintenance/service department operations and schedule
- Provide on site project management and support to all foreman and crew members
- Analyze all elements of production efficiency and job costing for all projects
- Manage all financial responsibilities within the company
- Oversee all new hire operations and procedures
- Liaise as direct contact with all customers, vendors and employees
- Manage internal inventory and quality control
- Provide estimating, budgeting, strategy, and profit building techniques
- Create proposals and bids for new opportunities across service and production work.
- Oversee the management of key client roof asset portfolios
- Establish new relationships with production and maintenance customers throughout the United States

Louis Vuitton Moet Hennessy; Moet Hennessy USA, New York, NY : January 2010-November 2010
Senior Financial Analyst

- Coordinator for all Advertising and Promotional Budget processes
- Continual processing and approving of funding transfers
- Manage the MH USA Corporate Marketing spend and brand cost allocation
- Preparation of monthly inventory and depletion dashboard
- Responsible for quarterly regional accrual process
- Construction of value chain and price determination simulation
- Creation and implementation of a system to track actual spend vs. budget for both regions and brand groups
- Ongoing support for US Regional Finance Managers and twenty-eight brand groups
- Support behind the execution of a new Internal Order coding structure

General Electric; NBC Universal, New York, NY : January 2009-January 2010
Financial Management Program (FMP)
Cable Entertainment; Financial Planning and Analysis

- Managed and consolidated Cable Entertainment headquarters' budget
- Oversaw and analyzed each cable entertainment network's cost tracking and rating performance
- Continued analysis of industry and internal network trending
- Consolidated financial summaries and analyzed business performance across cable group
- Provided analytical support for closes and GE estimate periods
- Led ongoing effort to improve and implement standardized forecasting and automated reporting tools

Corporate Finance & Accounting

- Continued tracking of NBC Universal's general ledger; account analysis and variance resolution
- Responsible for corporate general ledger quarterly/upkeep journal entries
- Design and execute NBC Universal vendor and miscellaneous contract audits
- Performed media industry and competitor analysis; impairment research
- Researched and executed internal and external accounting memorandums
- Facilitated quarter close consolidation and corporate reporting
- Completed NBC Universal Corporate ledger account reconciliations on quarterly basis
- Facilitated account reconciliation audits to ensure compliance and accuracy of GE reporting criteria

Award: GE FMP Leadership Award

EDUCATION

Bachelor of Science in Finance and Economics, Fairfield University, Fairfield, CT **Graduating GPA: 3.8**

ADDITIONAL INFORMATION

- Inductee and member of Beta Sigma Gamma National Business Honor Society and Alpha Sigma Nu Jesuit Honor Society
- Vice President of Fairfield University Student Association
- Charles Dolan Business School Scholarship – Academic Achievement and Leadership Award Spring 2008
- Skills: Strong public speaking and oral communication abilities, Proficiency in Foundation Software, Microsoft Windows, Education in PACT Software, STARR, Reuters, SAP, Topaz, Oasis, Business Warehouse and Hyperion

SILKTOWN ROOFING
MANCHESTER, CT

JOAN K. McCONVILLE- CORPORATE SECRETARY

1992- Present Silktown Roofing, Manchester, CT
Corporate Secretary

As Secretary of the Corporation, Joan K. McConville researches upcoming projects, procures bidding insurance documents, prepares bid documents, prepares contracts, insurance requirements and bonding requirements. She also oversees the contract and any changes that might occur as well as working with the bookkeeping department. She maintains records to insure that Silktown is in compliance with the states in which it is certified.

1984-1992 Welcome Aboard
Travel Agent

Briarwood College (1977-1978)
Associates Degree

27 Pleasant Street ~ Manchester, CT 06040
O: 860-647-0198 ~ F: 860-646-0775
Affirmative Action/Equal Opportunity Employer

SILKTOWN ROOFING
MANCHESTER, CT

PROJECT REFERENCES:

Roger Ludlowe Middle School, Town of Fairfield, CT,:

Contract Price: $3,016,500.00

Contact: Sal Morabito, (203) 255-7363

Sedgwick Middle School, Town of West Hartford, CT:

Contract Price: $669,600.00

Contact: Bill Phibbs, (860) 561-7523

Dunbar & Westwood Schools, Town of Hamden, CT

Contract Price: (Dunbar) $2,626,536.00

(Westwood): $2,880,185.00

Contact: Jeremy Godgill, (860) 204-1006

Job Description	City	State	Contract Amount	Owner	Owner's Contact	Designer/Architect	Designer/ Architect Cont	Start Date	End Date	Complaint
PIRELLI HOTEL	New Haven	CT	$795,200.00	Consigli Construction Co.	Aaron Kureger, 774-573-6964	Becker & Becker Assoc.	203-292-4900	10/28/2020	1/31/2023	
SIKORSKY CLN RM & AUTOCLAVE	Stratford	CT	$170,200.00	Richards Corp.	Harold Brennan, 860-583-9229	Ames & Whitaker Architects	860-284-5064	10/15/2021	1/31/2023	N/A
EVERSOURCE SOUTHBOROUGH	Southborough	MA	$110,000.00	Standard Builders	Bryan Bakas, 860-306-2599	Design-Science	978-369-6565	1/27/2022	1/24/2023	N/A
BRISTOL MEMORIAL MAGNET SCHOOL	Bristol	CT	$984,500.00	D'Amato + Downes Joint Venture	Frank Tomcak, 860-229-3755	Quisenberry, Arcari, Malik, LLC	860-677-4594	11/30/2020	12/31/2022	N/A
USPS NAUGATUCK	Naugatuck	CT	$369,700.00	United States Postal Service	Sandra Chong Ham, Sandra.G.ChongHam@usps.gov	Wood Environmental	832-809-8000	11/22/2019	12/31/2022	N/A
BOSTON FIRE ALARM	Boston	MA	$313,389.00	Paul J. Rogan, Co., Inc.	Paul J. Rogan Jr.	C.S.S. Architects Inc.	781-245-8400	11/22/2021	12/31/2022	N/A
MEDFIELD WELLS 3 + 4 WTCF	Medfield	CT	$58,427.00	Biszko Building Systems Inc.	508-679-0518	Environmental Partner's Group	617-657-0200	8/24/2021	12/31/2022	N/A
RIANG MIDDLETOWN READINESS CTR	Middletown	RI	$20,000.00	Tower Construction Corp.	Brett Casale, 401-943-0110	R G B Architects	401-273-1730	10/25/2021	12/31/2022	N/A
Howe Elementary School	Billerica	MA	$109,119.00	BC Construction Co., Inc.	Deana Morano, 978-2760121	PRA Architects	617-354-3561	7/14/2021	12/29/2022	N/A
AMAZON DISTRIBUTION FACILITY	Windsor	CT	$3,565,000.00	R C Anderson LLC	Christine Bunner, 551-206-4428	BL Companies	203-630-1406	11/2/2020	11/30/2022	N/A
COBURN ELEMENTARY SCHOOL	West Springfield	MA	$958,000.00	Fontaine Bros.	Stan Pchelka, PM 413-627-0997	T.S.K.P. Studios / Dietz & Co. Architecture	860-547-1970	1/11/2021	11/30/2022	N/A
USPS ROXBURY MA	Roxbury	MA	$939,000.00	United States Postal Service	Sandra Chong Ham, Sandra.G.ChongHam@usps.gov	USPS	Sandra Chong Ham, Sandra.G.ChongHam@usps.gov	12/9/2021	11/30/2022	N/A
SIKORSKY DYNAMIC BONDING ROOM	Stratford	CT	$36,728.00	Richards Corp.	Sarah Hamilton, 860-583-9229	OMA Architects, LLC	860-604-5807	2/28/2022	11/30/2022	N/A
MILFORD SCHOOLS REPAIRS	Milford	CT	$48,801.00	Milford Public Schools	Patti Rutherford, 203-783-3430	N/A	N/A	8/2/2021	11/30/2022	N/A
3M STAFFORD SPRINGS	Stafford Springs	CT	$11,620.00	O & G INDUSTRIES	Tyson Burk, 860-387-9985	N/A	N/A	12/20/2021	11/30/2022	N/A
UCONN HEALTH CTR MUNSON ROAD	Farmington	CT	$3,211,000.00	University of CT	Martin Benassi, 203-281-5000	UCHC	860-679-2000	7/19/2016	10/31/2022	N/A
HARTFORD SPORTS & MED SCIENCE ACADEMY	Hartford	CT	$1,019,439.00	City of Hartford	John Butkus (Arcadis) 860-503-1510	Silver Petrucelli	Ken Linsley, 203-230-9007	12/1/2021	10/31/2022	N/A
UCONN GANT PHASE 1	Storrs	CT	$821,900.00	Whiting Turner	Kevin Seidensticker, 203-777-6783	N/A	N/A	11/30/2017	10/31/2022	N/A
MORRISSEY MANOR	West Haven	CT	$1,390,000.00	Savin Rock Communities	Eric Stokes, 203-934-8671 x113	Antinozzi Associates	Paul Lisi, 203-377-1300	8/31/2021	12/31/2022	N/A
CREC ANA GRACE	Bloomfield	CT	$1,796,000.00	BBE Construction	Noal S. Jenkins, 860-922-5068	Friar Architecture	Bryce Sens, 860-856-1489	12/2/2019	9/30/2022	N/A

SILKTOWN ROOFING
MANCHESTER, CT

CERTIFICATE OF CORPORATE VOTE

On *January 26, 2024*, due notice having been given, a Special Meeting of the Board of Directors of Silktown Roofing, Inc. was held. All directors being present and voting, the following was made, seconded and adopted:

That John C. McConville, in his capacity as President, has the power to sign any and all bidding and contract documents relating to the following project: ***TINKER ELEMENTARY SCHOOL ROOF REPLACEMENT*** and his signature shall be legal and binding upon the corporation.

Joan K. McConville

Joan K. McConville, Corporate Secretary

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

State of Connecticut

ss: Manchester

County of Hartford

February 1, 2024

Personally appeared, Joan K. McConville, Corporate Secretary of Silktown Roofing, Inc., signer and sealer of the foregoing instrument, who being duly authorized, acknowledges the same to be her free act and deed and the free act and deed of said Corporation before me.

Kayla Green

Kayla M. Green, Notary Public
My commission expires: October 31, 2027

KAYLA M. GREEN NOTARY PUBLIC MY COMMISSION EXPIRES 10/31/2027. CONNECTICUT

27 Pleasant Street ❖ Manchester, Connecticut 06040
860-647-0198 ❖ Fax 860-646-0775
www.silktownroofing.com

State of Connecticut

Department of Administrative Services

Construction Contractor Prequalification Program

This certifies

Silktown Roofing, Inc.

27 Pleasant Street, 13 Pleasant Street-Remittance Address, Manchester, CT 06040

As a

Prequalification Construction Contractor

April 15, 2023 through April 14, 2024

CONTACT INFORMATION

Name: Joan K. McConville, Corp. Secretary
Phone: (860) 647-0198
Fax: (860) 646-0775
Email: Joan@silktownroofing.com

Name: John C. McConville, President
Phone: (860) 647-0198
Fax: (860) 646-0775
Email: John@silktownroofing.com

Effective Date	Aggregate Work Capacity (AWC)	Single Limit (SL)	Classifications
4/15/2023	$120,000,000.00	$30,000,000.00	ENERGY MANAGEMENT SYSTEMS, GENERAL BUILDING CONSTRUCTION (GROUP C), HISTORICAL BUILDING RESTORATION (MASONRY, ROOFING), METAL SIDING, ROOFING, WATERPROOFING

Classification Name	Description
ENERGY MANAGEMENT SYSTEMS	The design and installation of systems or maintenance programs to conserve energy use within a building. This category includes shared savings programs.

This certificate prequalifies the named company to bid. It is not a statement of the Contractor's capacity to perform a specific project. That responsibility lies with the awarding authority.

Company Licenses/Registrations: It is the Contractor's responsibility to update their license information by editing their electronic application. Licenses are confirmed by the Department of Administrative Services (DAS) at the time of initial application and at each renewal.
For information regarding the DAS Contractor Prequalification Program visit http://portal.ct.gov/dasprequal or call (860) 713-5280.

GENERAL BUILDING CONSTRUCTION (GROUP C)	The undertaking of general contracts for the construction of buildings i.e. new construction, renovation, rehabilitation, alteration, addition, etc. The contract must include a variety of construction practices and supervision of a minimum of three sub-trades. Includes buildings that are truly custom, requiring extensive detailing, or that have large amounts of integrated scientific or complex mechanical/electrical equipment in order for them to function. Examples include hospitals, chemistry buildings, special collections buildings, historic preservation to a landmark structure, and/or any other structure that is truly one of a kind within the State's inventory.Note: If you are prequalified for General Building Construction under Group C, you are automatically prequalified for Group A and Group B. Also if you are prequalified for General Building Group C you will automatically be prequalified for General Trades.Note: For the purposes of DAS Construction Contractor Prequalification, contractors in this classification are not required to be registered as a major contractor with the Department of Consumer Protection. However, there may be specific projects within this classification that require a major contractor registration from the Department of Consumer Protection.Projects that are threshold buildings may require a Major Contractor Registration.
HISTORICAL BUILDING RESTORATION (MASONRY, ROOFING)	Construction/renovation, masonry, and roofing work will require firms with experience with the Secretary of the Interior's Standards for Rehabilitation issued by the U.S. Department of Interior, National Park Service, Washington, D.C. (Standards for Treatment of Historic Project.)
METAL SIDING	Work customarily performed by this industry including the supply and installation of metal siding where used as external components of custom designed buildings. This does not apply to pre-engineered buildings where the metal siding is a building component.
ROOFING	The installation of various types of roofing materials including shingles, slate, rubber, PVC and related flashing and drainage systems.
WATERPROOFING	Installation, renovation, repair and maintenance of materials required to make foundations, walls and other surfaces of a building dam proof or impervious to water, including such incidental or related work as is customarily performed by those in the waterproofing and dam proofing trades. This category does not include roofing by itself.

State of Connecticut

Department of Administrative Services (DAS) Contractor Prequalification

Update Statement

(Statement to be included with the bid)

Connecticut General Statute §4a-100 and Connecticut General Statute §4b-91

Each bid submitted for a contract shall include an update statement in such form as the Commissioner of Administrative Services prescribes and, if required by the public agency soliciting such bid, a copy of a prequalification certificate issued by the Commissioner of Administrative Services. The form for such update statement shall provide space for information regarding all projects completed by the bidder since the date the bidder's prequalification certificate was issued or renewed, all projects the bidder currently has under contract, including the percentage of work on such projects not completed, the names and qualifications of the personnel who will have supervisory responsibility for the performance of the contract, any significant changes in the bidder's financial position or corporate structure since the date the certificate was issued or renewed, any change in the contractor's qualification statusas determined by the provisions of subdivision (6) of subsection (c) of 4a-100 of the Connecticut General Statutes, and such other relevant information as the Commissioner of Administrative Services prescribes. Any public agency that accepts a bid submitted without a copy of such prequalification certificate, if required by such public agency soliciting such bid, and an update statement, may become ineligible for the receipt of funds related to such bid, except the public agency soliciting such bids may allow bidders no more than two business days after the opening of bids to submit a copy of the prequalification certificate, if required by such public agency, and an update statement.

PROJECT THAT COMPANY IS BIDDING ON

PROJECT NAME	Tinker Elementary School Roof Replacement
PROJECT NUMBER	Project 151-0309RR

COMPANY INFORMATION

LEGAL BUSINESS NAME	Silktown Roofing, Inc.	
DBA		
TAXPAYER ID	061350674	
BUSINESS ADDRESS	27 Pleasant Street 13 Pleasant Street-Remittance Address	
BUSINESS CITY, STATE, ZIP	Manchester CT 06040	
PREQUALIFICATION CONTACT	Joan K. McConville, Corp. Secretary	(860) 647-0198 ext.
	John C. McConville, President	(860) 647-0198 ext.

PREQUALIFICATION INFORMATION

EXPIRATION DATE	04-14-2024
SINGLE LIMIT	$30,000,000.00
AGGREGATE WORK CAPACITY (AWC)	$120,000,000.00
REMAINING AGGREGATE WORK CAPACITY *	$119,272,400.00

* The Remaining Aggregate Work Capacity equals your company's AWC minus the Total $ Amount of Work Remaining

BONDED PROJECTS (BOTH PUBLIC AND PRIVATE) CURRENTLY UNDER CONTRACT

Project Name	Project Owner	% Completed	Total Contract Amount	Work Remaining
SEE ATTACHED				

Total Amount of Work Remaining $72,760.00

BONDED PROJECTS (BOTH PUBLIC AND PRIVATE) WHICH WERE AWARDED AND 100% COMPLETED SINCE THE DATE OF YOUR INITIAL PREQUALIFICATION OR YOUR LAST RENEWAL

SEE ATTACHED

PERSONNEL WHO WILL HAVE SUPERVISORY RESPONSIBILITY FOR THE PERFORMANCE OF THE CONTRACT BEING BID ON

Sean Morrissey, PM

CHANGES IN YOUR COMPANY'S FINANCIAL CONDITION OR BUSINESS ORGANIZATION WHICH MIGHT AFFECT YOUR COMPANY'S ABILITY TO SUCCESSFULLY COMPLETE THIS CONTRACT

HAVE THERE BEEN ANY CHANGES? NO

IF YES, EXPLAIN

I CERTIFY UNDER PENALTY OF LAW THAT ALL OF THE INFORMATION CONTAINED IN THIS UPDATE STATEMENT IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AS OF THE DATE BELOW.

Joan K. McConville

Signature Joan K. McConville, Secretary

2-1-2024

Date

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

It is the responsibility of the Awarding Authority to determine if any of the information provided above will impact the contractor's performance on this project.

The DAS' Contractor Prequalification Program can be reached at DAS.Prequalification@ct.gov

SILKTOWN ROOFING INC
CONTRACTS IN PROGRESS (Major defined as over $100,000.00 contract value)
DAS BID UPDATE STATEMENT ATTACHMENT 1

Project Name	Bonded Y/N	Owner	Contract Value	% Complete	$ Remaining on Contract
87 Union St	YES	Whiting Turner	$ 2,495,441.00	99%	$ 24,954.41
Belmont MS HS	YES	Skanska USA Building Inc.	$ 4,169,789.00	95%	$ 208,489.45
BPL Faneuil Hall	YES	Boston Buildng & Bridge Corp	$ 277,000.00	10%	$ 249,300.00
Buckley Elementary	YES	Town of Manchester	$ 885,568.00	95%	$ 44,278.40
Buttonwood Park Zoo	YES	City of New Bedford	$ 241,000.00	99%	$ 2,410.00
Coburn Elementary	YES	Fontane Brothers Inc.	$ 969,778.00	95%	$ 48,488.90
Curley Community	YES	Boston Buildng & Bridge Corp	$ 550,151.00	99%	$ 5,501.51
Morrisey Manor Roof	YES	Savin Rock Communities	$ 1,491,555.00	95%	$ 74,577.75
New Fairfield HS & PO	YES	O&G Industries	$ 1,255,000.00	90%	$ 125,500.00
Riang Bristol Armory Roof	YES	State of Rhode Island	$ 544,389.00	90%	$ 54,438.90
Uconn Hockey Arena	YES	Turner Construction Company	$ 1,000,569.00	99%	$ 10,005.69
USPS Marblehead ME	YES	Roth Brothers Inc.	$ 170,970.00	90%	$ 17,097.00
USPS Roxbury	YES	USPS Roxbury MA	$ 939,000.00	5%	$ 892,050.00
USPS Wakefield MA MPO	YES	Roth Brothers Inc.	$ 443,000.00	99%	$ 4,430.00
Waltham High School	YES	Consigli Construction	$ 4,732,000.00	30%	$ 3,312,400.00
MIDDLEBROOK SCHOOL	YES	Town of Trumbull	$ 2,091,500.00	0%	$ 2,091,500.00
ASML CAGE & PACK	YES	Hodess Construction	$ 265,866.50	50%	$ 132,933.25
LATIMER LANE SCHOOL	YES	O&G Industries	$ 1,308,000.00	0%	$ 1,308,000.00
BURNS LATINO	YES	PDS ENGINEERING	$ 2,317,300.00	20%	$ 1,853,840.00
YALE CRB	YES	PETRA CONSTRUCTION	$ 632,447.00	10%	$ 569,202.30
HAGAMAN LIBRARY	YES	TOWN OF EAST HAVEN	$ 232,000.00	99%	$ 2,320.00
CORNELL SCOTT	YES	Newfield Construction	$ 275,500.00	10%	$ 247,950.00
SPRINGFIELD CLEARWATER	YES	C.H. NICKERSON	$ 202,100.00	80%	$ 40,420.00
			$ 61,423,300.47		$ 39,972,080.47

SILKTOWN ROOFING INC
MAJOR CONTRACTS CLOSED (Major defined as over $100,000.00 contract value)
DAS BID UPDATE STATEMENT ATTACHMENT 2

Project Name	Bonded Y/N	Owner	Date Completed	Location	Contract Value
Boston Engine #42	YES	Boston Buildng & Bridge Corp	Aug-21	MA	$ 368,707.00
Bristol Memorial	YES	D'Amato & Downes JV	Mar-22	CT	$ 955,319.00
Burr Elementary Sch	YES	Town of Fairfield	Dec-21	CT	$ 946,679.00
Coleytown MS	YES	Newfield Construction	Feb-22	CT	$ 3,018,182.00
CREC Ana Grance	YES	Barlett Brainard Eascott	Mar-22	CT	$ 1,903,684.00
Durfee HS	YES	Suffolk Construction Company	Aug-21	MA	$ 3,897,818.00
East Boston Police	YES	J&J Contractors Inc.	Aug-21	MA	$ 675,062.00
Hall High School	YES	Town of West Hartford	Aug-21	CT	$ 1,100,424.00
Hartford Hosp Bliss	YES	FIP Construction	Feb-22	CT	$ 374,739.00
Haverhill HS Gym	YES	City of Haverhill	Dec-21	MA	$ 697,954.00
LRTA Gallagher & Maguire Roof	YES	Lowell Regional Transit	Mar-22	MA	$ 299,487.00
NUWCD New Isopar	YES	Structural Associates	Sep-21	RI	$ 132,562.00
RI Convent Ctr	YES	SMG RI	May-20	RI	$ 3,713,596.00
Sage Park Middle Sch	YES	Town of Windsor	Aug-21	CT	$ 1,525,576.00
SCSU New Health	YES	Skanska USA Building Inc.	Apr-22	CT	$ 685,438.00
Sedgwick Middle Sch	YES	Town of West Hartford	Aug-21	CT	$ 548,900.00
Sisson Ave Firehouse	YES	City of Hartford	Mar-22	CT	$ 274,296.00
Stonington Middle Sch	YES	Stonington Public Schools	Sep-21	CT	$ 931,670.00
Uconn Gant Phase 1	YES	Whiting Turner	Feb-22	CT	$ 975,526.00
Uconn NW SCI Quad	YES	Bond Brothers Inc.	Apr-22	CT	$ 520,044.00
USPS Boston IMC	YES	Roth Brothers Inc.	Nov-21	MA	$ 150,573.00

AIA® Document A310™ – 2010

Bid Bond

CONTRACTOR:
(Name, legal status and address)
Silktown Roofing, Inc.
27 Pleasant St.
Manchester, CT 06040

SURETY:
(Name, legal status and principal place of business)
Hartford Fire Insurance Company
The Hartford - Bond Claim Department
One Hartford Plaza, T-11
Hartford, CT 06155

OWNER:
(Name, legal status and address)
City of Waterbury
Connecticut

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

BOND AMOUNT: 10% of the attached bid

PROJECT:
(Name, location or address, and Project number, if any)
Tinker Elementary School Roof Replacement

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 1st day of February, 2024

(Witness)	*(Principal)* *(Seal)*
	John C. McConville, President
	(Title)
(Witness)	*(Surety)* *(Seal)*
	Jeri A. Caron, Attorney-in-Fact
	(Title)

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

HARTFORD FIRE INSURANCE CO. INCORPORATED 1810

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

Init.
/

AIA Document A310™ – 2010. Copyright © 1963, 1970 and 2010 by The American Institute of Architects. All rights reserved. WARNING: This AIA Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. Purchasers are permitted to reproduce ten (10) copies of this document when completed. To report copyright violations of AIA Contract Documents, e-mail The American Institute of Architects' legal counsel, copyright@aia.org.

POWER OF ATTORNEY

Direct Inquiries/Claims to:
THE HARTFORD
BOND, T-11
One Hartford Plaza
Hartford, Connecticut 06155
Bond.Claims@thehartford.com
call: 888-266-3488 *or fax:* 860-757-5835

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Name: SINCLAIR RISK & FINANCIAL SVCS LLC
Agency Code: 02-021659

- [X] **Hartford Fire Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- [ ] **Hartford Casualty Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Accident and Indemnity Company**, a corporation duly organized under the laws of the State of Connecticut
- [ ] **Hartford Underwriters Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- [ ] **Twin City Fire Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Insurance Company of Illinois**, a corporation duly organized under the laws of the State of Illinois
- [ ] **Hartford Insurance Company of the Midwest**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Insurance Company of the Southeast,** a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint
Jeri A. Caron
of Wallingford, Connecticut,
its true and lawful Attorney-in-Fact, to sign its name as surety(ies) only as delineated above by , and to execute, seal and acknowledge the following bond, undertaking, contract or written instrument:

Bond No. 02BCSJD8499
Naming Silktown Roofing, Inc. as Principal,
and City of Waterbury as Obligee,
in the amount of See Bond Form(s) on behalf of Company in its business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 23, 2016 the Companies have caused these presents to be signed by its Assistant Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.

Shelby Wiggins, Assistant Secretary

Joelle L. LaPierre, Assistant Vice President

STATE OF FLORIDA
COUNTY OF SEMINOLE } ss. Lake Mary

On this 20th day of May, 2021, before me personally came Joelle LaPierre, to me known, who being by me duly sworn, did depose and say: that (s)he resides in Seminole County, State of Florida; that (s)he is the Assistant Vice President of the Companies, the corporations described in and which executed the above instrument; that (s)he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that (s)he signed his/her name thereto by like authority.

Jessica Ciccone
My Commission HH 122280
Expires June 20, 2025

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of February 1, 2024.

Signed and sealed in Lake Mary, Florida.

Keith D. Dozois, Assistant Vice President

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 2024)
Persons or Entities Conducting Business with the City

I. Outstanding Purchase Orders of Contracts with the City

A. Contracts

No Contracts with the City ☑

(Service or Commodity Covered by Contract)

(Term of Contract)

(Service or Commodity Covered by Contract)

(Term of Contract)

(Service or Commodity Covered by Contract)

(Term of Contract)

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 2024)
Persons or Entities Conducting Business with the City

B. Purchase Order(s).

No Purchase Order(s) with the City ☑

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

(Service or Commodity Covered by Purchase Order)

(Date of Purchase Order)

CITY OF WATERBURY
ANNUAL STATEMENT OF FINANCIAL INTERESTS (Calendar Year 2024)
Persons or Entities Conducting Business with the City

II. Financial Interest Disclosure

(Public Officials, Employees or Board and Commission Members with interest in Person or Entity Conducting Business with the City)

No Officials, Employees or Board and Commission Members with Financial Interest ☑

(Name of Official)

(Position with City)

(Nature of Business Interest)
(e.g. Owner, Director etc...)

Interest Held By:
Self ☐ Spouse ☐ Joint ☐ Child ☐

(Name of Official)

(Position with City)

(Nature of Business Interest)
(e.g. Owner, Director etc...)

Interest Held By:
Self ☐ Spouse ☐ Joint ☐ Child ☐

1. I certify that this Annual Statement of Financial Interests is a complete and accurate statement of those matter required to be disclosed by me pursuant to §39.061 of the Code of Ordinances.

2. I understand that if I fail to file an Annual Statement (or amendment thereto) or an inaccurate Statement I will be in violation with Chapter 39 of the Code of Ordinance and, thereby, subject to the remedies set forth in §§38.71 and 39.101 of said Code.

3. I understand that I must file with the City Clerk, within fifteen (15) days following any reportable occurrence, any amendments to the Annual Statement.

I have read and agree to the above certification.

SILKTOWN ROOFING INC.
(Name of Company, if applicable)

Maureen Damaschi
Signature of Individual (or Authorized Signatory)

01/23/2024
Date

Maureen Damaschi, Controller
Print or Type Name and Title (if applicable)

DELIVERED | By Mail ☐ Hand-Delivered ☐

City of Waterbury Certification
Regarding
Debarment, Suspension, Ineligibility and Exclusion

If the transaction is Federally funded, in whole or in part (including pass through grants to state and/or municipal government), this certification is required by the regulations implementing one or more Presidential Executive Orders. If this transaction is funded by the State of Connecticut, in whole or in part, this certification is required in accordance with one or more State of Connecticut general statutes.

1. By signing and submitting the attached proposal and/or this document, the prospective lower tier participant, vendor, or contractor is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant, vendor, or contractor knowingly rendered an erroneous certification, in addition to other remedies available to the Federal , State, or City government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant, vendor or contractor shall provide immediate written notice to the person to which the attached proposal and/or this document is submitted if at any time the prospective lower tier participant, vendor or contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction", "principal", "proposal", and "voluntarily excluded", as used herein, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549 and/or State of Connecticut statutes and regulations. You may contact the person to which this proposal and/or this document is submitted for assistance in obtaining a copy of the foregoing.
5. The prospective lower tier participant, vendor or contractor agrees by submitting the attached proposal and/or this document that, should the proposed covered transaction be entered into, it shall not knowingly enter into any covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant, vendor or contractor further agrees by submitting the attached proposal and/or this document that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion-Lower Tier Covered Transactions", without modification, in all covered transaction and in all solicitations for covered transactions.
7. A participant in a covered transaction may rely upon the certification of a prospective participant in a covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may but is not required to, check the Non-procurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required herein. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 herein, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal, State or Municipal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification

(1) The prospective recipient of monies hereby certifies, by submission of its attached proposal and/or by execution of this document, that neither it nor its principles are presently debarred, suspended, proposed for debarment, declared ineligible, disqualified, or voluntarily excluded from bidding or participation in the proposed transaction by any Federal, State, or Municipal department or agency or by the statutes, regulations or ordinances of the foregoing departments and agencies.

(2) Where the prospective recipient of monies is unable to certify to any of the statements in this certification, such prospective participant shall attach a written explanation hereto.

Full Legal Name and address of Recipient, Vendor, or Contractor: Silktown Roofing, Inc.
27 Pleasant Street
Manchester, CT 06040

Print Name and Title of Authorized Representative: John C. McConville, President

Signature of Authorized Representative:

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

Date: 2-1-2024

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

For the purposes of this Disclosure of Outstanding Financial Obligations, the following definitions apply:

(a) "Contract" means any Public Contract as defined below.

(b) "Person" means one (1) or more individuals, partnerships, corporations, associations, or joint ventures.

(c) "Public Contract" means any agreement or formal commitment entered into by the city to expend funds in return for work, labor, services, supplies, equipment, materials or any combination of the foregoing, or any lease, lease by way of concession, concession agreement, permit, or per agreement whereby the city leases, grants or demises property belonging to the city, or otherwise grants a right of privilege to occupy or to use said property of the city.

(d) "City" means any official agency, board, authority, department office, or other subdivision of the City of Waterbury.

State of Connecticut

SS.: Manchester

County of Hartford

John C. McConville, being first duly sworn, deposes and says that:

1. I am the ***owner, partner, officer, representative, agent or*** President of Silktown Roofing, Inc. (Contractor's Name), the Contractor that has submitted the attached agreement.

2. I am fully informed respecting the preparation and contents of the attached Agreement and of all pertinent circumstances respecting such Agreement;

3. That as a person desiring to contract with the City (check all that apply):

____ The Contractor and each owner, partner, officer, representative, agent or affiliate of the Contractor has filed a list of taxable personal property with the City of Waterbury for the most recent grand list, as required by Conn. Gen. Stat. §12-42.

__X__ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor are required to file a list of taxable personal property with the City of Waterbury for the most recent grand list, as required by Conn. Gen. Stat. §12-42.

__X__ Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor either directly or through a lease agreement, owes back taxes to the City of Waterbury

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

X Neither the Contractor nor any owner, partner, officer, representative, agent or affiliate of the Contractor either directly or through a lease agreement, has any other outstanding obligations to the City of Waterbury

4. The following list is a list of the names of all persons affiliated with the business of the Contractor, if none state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

	Name	Title	Affiliated Company (if none state NONE)	Service or Material	DOB
1	N/A	N/A	N/A	N/A	N/A
2					
3					
4					

5. That as a person desiring to contract with the City:

(a) The Contractor or an owner, partner, officer, representative, agent or affiliate of the Contractor provides, or has provided, services or materials to the City within one (1) year prior to the date of this disclosure, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

	Name	Title	Affiliated Company (if none state NONE)	Service or Material	DOB
1	N/A	N/A	N/A	N/A	N/A
2					
3					
4					

(b) The Contractor possesses an ownership interest in the following business organizations, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized) :

	Organization Name	Address	Type of Ownership
1	NONE.		
2			
3			
4			

(c) The following persons possess an ownership interest in the Contractor. If the Contractor is a corporation, list all of the officers of the corporation and the names of each stockholder whose shares exceed twenty-five

(25) percent of the outstanding stock, if none, state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

	Name	Title	DOB	Stock %
1	John C. McConville	President	8/28/56	100%
2				
3				
4				

(d) Of the following of the affiliates, individuals or business entities identified in this affidavit, list each that owns, owned, or within one (1) year prior to the date of this disclosure has owned, taxable property situated in the City of Waterbury, if none state none. Use additional sheet if necessary (Must be on company letterhead and notarized):

	Name	Title	Affiliated Company (if none state NONE)	Address	DOB
1	NONE.				
2					
3					
4					

(e) If the Contractor conducts business under a trade name, the following additional information is required: the place where such entity is incorporated or is registered to conduct such business; and the address of its principal place of business, if none, state none:

	TRADE NAME	PLACE OF INCORPORATION/REGISTRY	PRINCIPAL PLACE OF BUSINESS
1	N/A	N/A	N/A
2			
3			
4			

I hereby certify that the statements set forth above are true and complete, and I understand that any incorrect information or omission of information from this affidavit may result in the immediate termination of the Contractor's agreement with the City of Waterbury.

For Partnership/Sole Proprietor

In presence of:

N/A
Witness

N/A
Name of Partnership/Business

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

By: N/A
Name of General Partner/ Sole Proprietor

N/A
Address of Business

State of N/A)

) SS

County of N/A)

N/A being duly sworn,

Deposes and says that he/she is N/A of N/A and that he/she answers to the foregoing questions and all statements therein are true and correct.

Subscribed and sworn to before me this N/A day of _____ 202_.

(Notary Public)

My Commission Expires: N/A

For Corporation

Witness

John C. McConville, President
Name of Corporate Signatory

27 Pleasant Street, Manchester, CT 06040
Address of Business

Affix Corporate Seal

By: _____
Name of Authorized Corporate Officer
John C. McConville

Its: President
Title

CITY OF WATERBURY
DISCLOSURE AND CERTIFICATION AFFIDAVIT REGARDING OUTSTANDING OBLIGATIONS TO THE CITY OF WATERBURY

State of Connecticut)

) SS Manchester

County of Hartford)

John C. McConville being duly sworn,

deposes and says that he/she is President of Silktown Roofing, Inc. and that he/she answers to the foregoing questions and all statements therein are true and correct.

Subscribed and sworn to before me this 1st day of February 2024.

Kayla M. Green (Notary Public)

My Commission Expires: October 31, 2027

KAYLA M. GREEN NOTARY PUBLIC MY COMMISSION EXPIRES 10/31/2027. CONNECTICUT

ATTACHMENT C

KEVIN MC CAFFERY
DIRECTOR OF PURCHASING
235 GRAND STREET, ROOM 103
WATERBURY, CT 06702

The undersigned declares that the only persons or parties interested in this Proposal as principals are as stated; that the Proposal is made without any collusion with other persons, firms, or corporations; that Proposer has carefully examined the entire Request for Proposal; that Proposer has informed itself fully in regard to all conditions pertaining to the Work and the place where it is to be performed; and that with this representation, the undersigned makes this Proposal. These prices shall cover all expenses incurred in performing the Work required under the Contract Documents, of which this Proposal and Form are a part.

The undersigned agrees and covenants that the Contract Time shall commence on delivery of the City of Waterbury's written notice to proceed, which shall occur after contract execution by both parties.

The undersigned acknowledges receipt of addenda numbered: (insert date)

1 Addendum 1 - 1/26/24 4 _____

2 Addendum 2 - 2/1/24 5 _____

3 _____ 6 _____

All Work for this Project shall be performed at the Proposal Prices as described in the Proposal Documents.

The undersigned hereby certifies under the penalties of perjury that this Proposal is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this section, the work "person" shall mean any natural person, joint venture, partnership, corporation, or other business or legal entity.

06-1350674
Social Security Number
or Federal Identification Number

Signature of Individual or Corporate Name

John C. McConville, President / Silktown Roofing, Inc.
Corporate Officer
(if applicable)

Silktown Roofing Incorporated CORPORATE SEAL ESTABLISHED 1992 CONNECTICUT

City notice of acceptance should be mailed, telegraphed or delivered to the undersigned Proposer at the following address:

Name Sean Morrissey
By: Project Manager
(Title)
Business Address: 151 Water Street
(City, State, Zip Code)
Derby, Connecticut
06418
Phone: (203) 735-0552
Email: sean@silktownroofing.com
Date: 2-1-2024

Note: If the Proposer is a corporation, indicate State of incorporation under signature, and affix corporate seal; if a partnership, give full names and residential addresses, if different from business address.

Incorporated in Connecticut
John C. McConville, President
Megan Girolamo, Vice President
Joan K. McConville, Corporate Secretary

STATE OF CONNECTICUT
DEPARTMENT OF CONSUMER PROTECTION

This is your Major Contractor registration certificate for your records. Such registration shall be shown to any properly interested person on request. Do not attempt to make any changes or alter this certificate in any way. This registration is not transferable. Questions regarding this registration can be emailed to the Occupational & Professional Licensing Division at dcp.occupationalprofessional@ct.gov.

In an effort to be more efficient and Go Green, the department asks that you keep your email information with our office current to receive correspondence. You can update your email address or print a duplicate certificate by logging into your account with your User ID and Password at www.elicense.ct.gov.

Mailing address:

SILKTOWN ROOFING INC
27 PLEASANT ST
MANCHESTER, CT 06040-5891

Email on file to be used for receiving all notices from this office:

kim@silktownroofing.com

954603

STATE OF CONNECTICUT ✦ DEPARTMENT OF CONSUMER PROTECTION

Be it known that

SILKTOWN ROOFING INC

27 PLEASANT ST
MANCHESTER, CT 06040-5891

has satisfied the qualifications required by law and is hereby registered as a

MAJOR CONTRACTOR

Registration #: MCO.0900776
Effective Date: 07/01/2023
Expiration Date: 06/30/2024

verify online at www.elicense.ct.gov

Bryan T. Cafferelli, Commissioner

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 4/25/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Sinclair Insurance Group, Inc. 35 Thorpe Ave Ste 200 Wallingford CT 06492 License#: 2328358	CONTACT NAME: Renee Wozniak PHONE (A/C, No, Ext): 203-284-3226 FAX (A/C, No): 203-284-3226 E-MAIL ADDRESS: rwozniak@srfm.com
INSURED Silktown Roofing Inc. 27 Pleasant Street Manchester, CT 06040 SILKROO-05	INSURER(S) AFFORDING COVERAGE / NAIC # INSURER A : National Fire Co. of Hartford 20478 INSURER B : American Casualty of Reading 20427 INSURER C : Zurich Insurance 16535 INSURER D : Allied World Assurance Co. 22730 INSURER E : Indemnity Ins Co of N America 43575 INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 2022014273 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			5092135340	5/1/2023	5/1/2024	EACH OCCURRENCE	$ 1,000,000
	[ ] CLAIMS-MADE [X] OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
	X XCU Included						MED EXP (Any one person)	$ 15,000
	X Contractual Liab						PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	[ ] POLICY [X] PRO-JECT [ ] LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	X OTHER: NO Residen Excl							$
A	AUTOMOBILE LIABILITY			C 5092135337	5/1/2023	5/1/2024	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	[ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
	X G-21578 Poll							$
E	X UMBRELLA LIAB [X] OCCUR			N1106940A	5/1/2023	5/1/2024	EACH OCCURRENCE	$ 5,000,000
	[ ] EXCESS LIAB [ ] CLAIMS-MADE						AGGREGATE	$ 5,000,000
	[ ] DED X RETENTION $ 10,000							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N			WC 5 92135354	5/1/2023	5/1/2024	X PER STATUTE [ ] OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [N] N/A (Mandatory in NH)						E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
D	Excess Liability			0310-6855	5/1/2023	5/1/2024	Ea Occ/Aggregate	5,000,000
C	Poll/Prof Incl MOLD			AEC3140017-03	5/1/2023	5/1/2024	Aggregate Limit	10,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Evidence of Insurance

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

R C Wozniak

© 1988-2015 ACORD CORPORATION. All rights reserved.

The ACORD name and logo are registered marks of ACORD

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
CONTRACT COMPLIANCE REGULATIONS
NOTIFICATION TO BIDDERS

(Revised 09/3/15)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

(a) the bidder's success in implementing an affirmative action plan;
(b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
(c) the bidder's promise to develop and implement a successful affirmative action plan;
(d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
(e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following BIDDER CONTRACT COMPLIANCE MONITORING REPORT must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists,systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category..

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

White (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East. Black(not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa. Hispanic- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.	Asian or Pacific Islander- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa. American Indian or Alaskan Native- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.

BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

Company Name Silktown Roofing, Inc. Street Address 27 Pleasant Street City & State Manchester, CT 06040 Chief Executive John C. McConville, President	Bidder Federal Employer Identification Number XX-XXX0674 Or Social Security Number_____
Major Business Activity (brief description) Roofing Contractor	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. Yes__ No X -Bidder is a minority business enterprise Yes__ No X (If yes, check ownership category) Black___ Hispanic___ Asian American___ American Indian/Alaskan Native___ Iberian Peninsula___ Individual(s) with a Physical Disability___ Female___
Bidder Parent Company (If any) N/A	- Bidder is certified as above by State of CT Yes__ No__
Other Locations in Ct. (If any) 151 Water Street, Derby, CT 06418	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes X No__	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes X No__
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? Yes X No__	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes X No__
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? Yes X No__	9. Does your company have a mandatory retirement age for all employees? Yes__ No X
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes X No__	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? Yes X No__ NA__
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes__ No X	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes__ No__ NA X
6. Does your company have a collective bargaining agreement with workers? Yes X No__ 6a. If yes, do the collective bargaining agreements contain non-discrim ination clauses covering all workers? Yes X No__	12. Does your company have a written affirmative action Plan? Yes X No__ If no, please explain.
6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? Yes X No__	13. Is there a person in your company who is responsible for equal employment opportunity? Yes X No__ If yes, give name and phone number. Maureen Damaschi, EEO Officer, 860-432-7346

Part III - Bidder Subcontracting Practices

1. Will the work of this contract include subcontractors or suppliers? Yes X No__

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

Adler Roof Vac - non SBE/MBE
Custom Pipe & Drain - non SBE/MBE
Pelweld - non SBE
A Royal Flush - SBE
Hartford Lumber - SBE

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above? Yes__ No_X

PART IV - Bidder Employment Information

Date:

JOB CATEGORY *	OVERALL TOTALS	WHITE (not of Hispanic origin)		BLACK (not of Hispanic origin)		HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

SEE ATTACHED

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

PART V - Bidder Hiring and Recruitment Practices

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)				2. Check (X) any of the below listed requirements that you use as a hiring qualification (X)		3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination
SOURCE	YES	NO	% of applicants provided by source			
State Employment Service	X		.5%		Work Experience	
Private Employment Agencies					Ability to Speak or Write English	
Schools and Colleges					Written Tests	
Newspaper Advertisement					High School Diploma	
Walk Ins					College Degree	
Present Employees				X	Union Membership	
Labor Organizations	X		99%		Personal Recommendation	
Minority/Community Organizations	X		.5%		Height or Weight	
Others (please identify)					Car Ownership	
					Arrest Record	
					Wage Garnishments	

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)
John C. McConville	President	February 1, 2024	860-647-0198

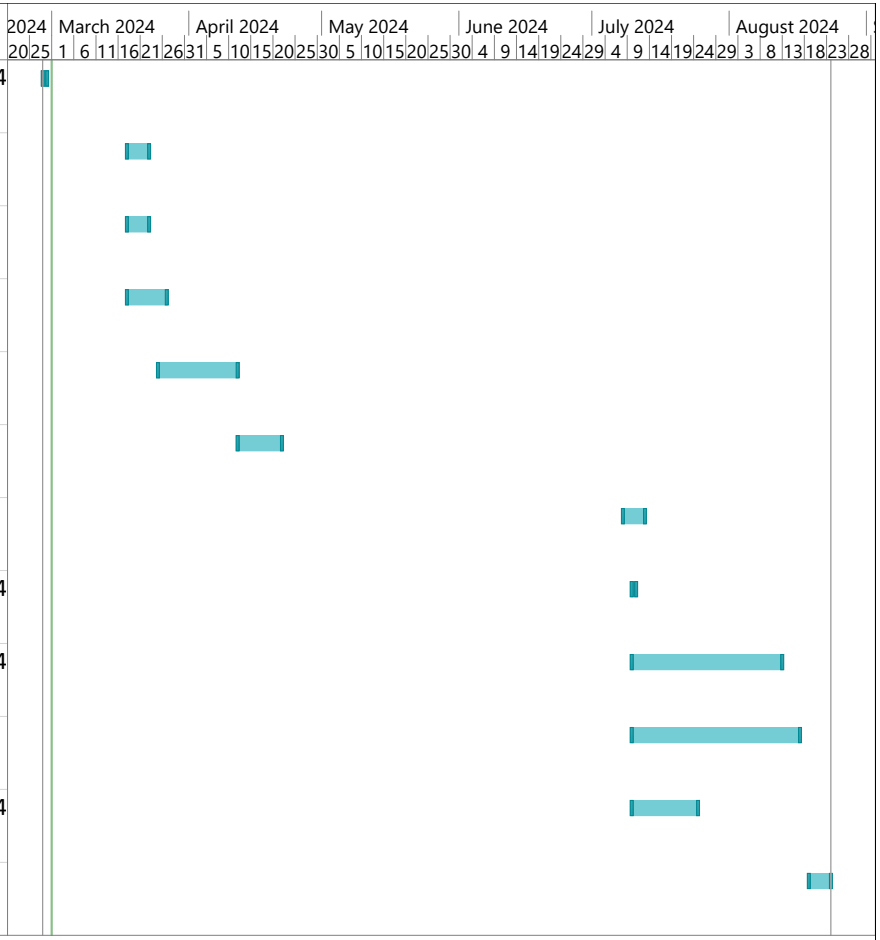


COMPANY EMPLOYMENT STATISTICS REPORT
STATE OF CONNECTICUT
COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES

Company name:	Street Address:	City, State, Zip code:
Silktown Roofing Inc	27 Pleasant Street	Manchester, CT 06040
Company Official: John C. McConville	Title President	Telephone No. 860-647-0198
Project # 151-0309 RR Tinker Elementary School Roof Replacement	Location 809 Highland Ave. Waterbury, CT	Date February 7, 2024

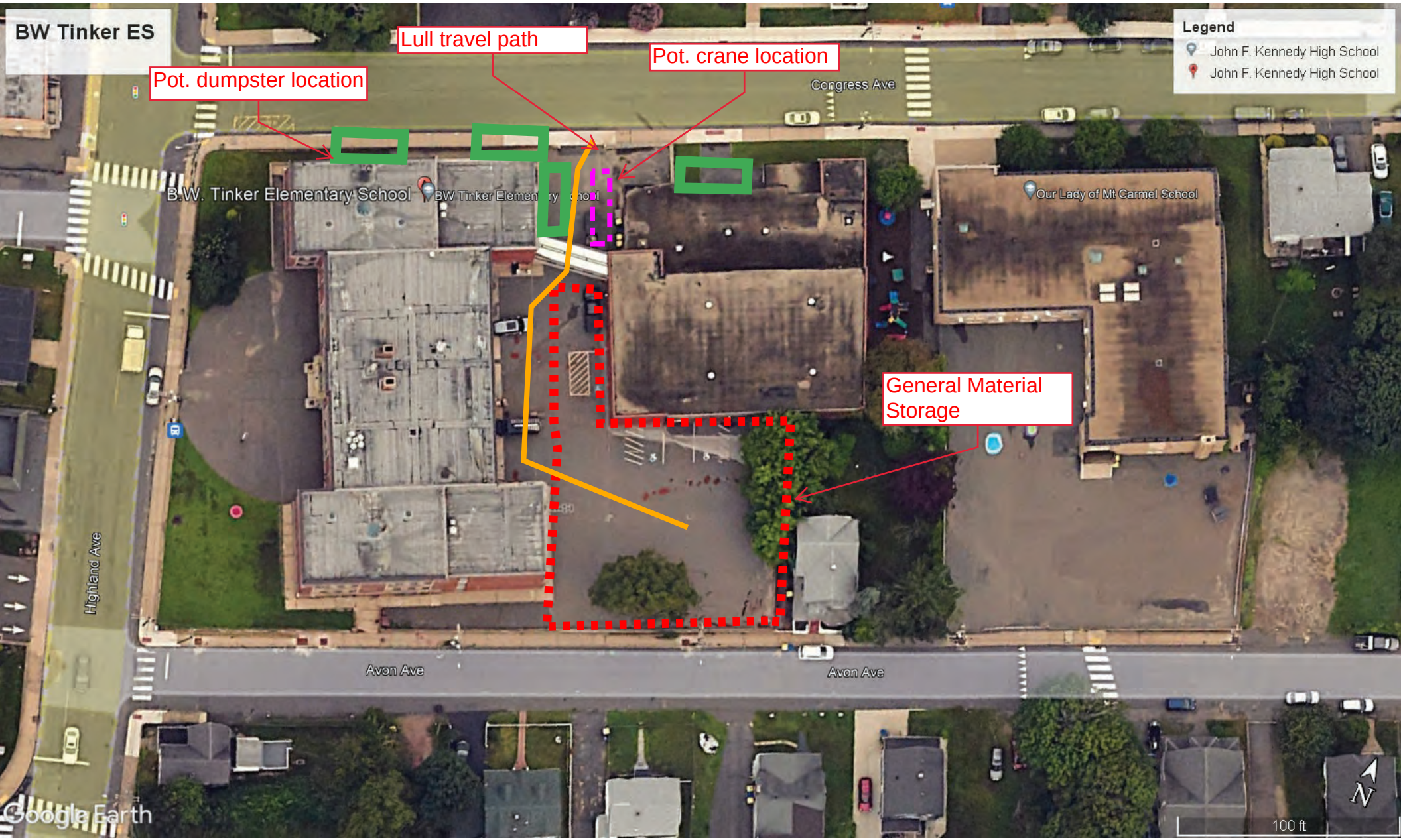
Job/Trade Title	Total # of Employees		% # of Females	Total White Employees		Total Black Employees		Total Hispanic Employees		Other Race Employees		Sub Total Minority Males	% # of Minority Males
	M	F		M	F	M	F	M	F	M	F		
Officials Managers	4	1	20	4	1	0	0	0	0	0	0	0	0
Professionals	19	3	14	19	2	0	0	0	1	0	0	0	0
Clericals	0	9	100	0	9	0	0	0	0	0	0	0	0
Roofer Journeymen	106	0	0	41	0	16	0	48	0	1	0	65	61
Roofer Foreman	26	0	0	14	0	1	0	11	0	0	0	15	58
Roofer Apprentice	14	0	0	5	0	2	0	7	0	0	0	9	64
Totals	169	13	7	83	12	19	0	66	1	1	0	86	51

ID	Task Mode	Task Name	Duration	Start	Finish
1		Initial Scope Meeting	1 day	Wed 2/28/24	Wed 2/28/24
2		Contract	5 days	Mon 3/18/24	Fri 3/22/24
3		Subcontractor Contracts	5 days	Mon 3/18/24	Fri 3/22/24
4		Submittals	7 days	Mon 3/18/24	Tue 3/26/24
5		Material Procurement	14 days	Mon 3/25/24	Thu 4/11/24
6		*Potential April Break Work*	7 days	Fri 4/12/24	Sun 4/21/24
7		Summer Mobilization	5 days	Mon 7/8/24	Fri 7/12/24
8		Roofing Rip Begin	1 day	Wed 7/10/24	Wed 7/10/24
9		Subcontractor Work	24 days	Wed 7/10/24	Mon 8/12/24
10		Roof Removal and Replacement	28 days	Wed 7/10/24	Fri 8/16/24
11		Metal Installation	11 days	Wed 7/10/24	Wed 7/24/24
12		Demobilization	5 days	Mon 8/19/24	Fri 8/23/24



Project: BW Tinker ES - Schedu
Date: Fri 3/1/24

Task	Inactive Summary	External Tasks
Split	Manual Task	External Milestone
Milestone	Duration-only	Deadline
Summary	Manual Summary Rollup	Progress
Project Summary	Manual Summary	Manual Progress
Inactive Task	Start-only	
Inactive Milestone	Finish-only	


BW Tinker ES
Lull travel path
Pot. crane location
Pot. dumpster location
Legend
John F. Kennedy High School
John F. Kennedy High School
Congress Ave
B.W. Tinker Elementary School
BW Tinker Elementary School
Our Lady of Mt Carmel School
General Material Storage
Highland Ave
Avon Ave
Avon Ave
Google Earth
100 ft
N

SILKTOWN ROOFING
MANCHESTER, CT

3/4/2024

The City of Waterbury
235 Grand Street
Waterbury, CT 06702
Attn: Kevin McCaffery

RE: Waterbury Public Schools
RFP 7930 – Roof Replacement Kennedy High School
RFP 7931 – Roof Replacement Tinker Elementary School
RFP 7932 – Roof Replacement Sprague Elementary School

Dear Kevin,

Pursuant to our meeting regarding the aforementioned projects we are prepared to offer to following:

RFP 7930 Roof Replacement Kennedy High School: DEDUCT from bid price ($75,000.00)*
RFP 7931 Roof Replacement Tinker ES: DEDUCT from bid price ($10,000)*1
RFP 7932 – Roof Replacement Sprague ES: DEDUCT from bid price ($10,000)*1

*: These offers are ONLY valid if we are provided the opportunity to perform work at **all 3** schools over the April vacation period. If we are not provided with that opportunity, there shall be no deduction given.
1: IN ADDITION TO THE ABOVE, there shall be no deductions for Tinker or Sprague if we are not awarded JFK High School.

If we are only awarded JFK – there would be no deduction from our bid price of $2,957,000.00.

However, for Silktown to hold the aforementioned pricing, Silktown requires a letter of intent from the City of Waterbury by March 15th, 2024, by 4PM. After the letter of intent, Silktown will deliver technical submittals not later than the week of March 25th with completed review returned to us by April 1st. Silktown would also need the town to allow Silktown to begin loading the jobsites on the afternoon of April 12th in the event we work during the April vacation.

27 Pleasant Street ❖ Manchester, Connecticut 06040
860-647-0198 ❖ Fax 860-646-0775
www.silktownroofing.com

Also enclosed are the requested weather dependent project schedules as well as potential staging areas.

We look forward to hopefully working with you on these projects. Should you have any questions or require additional information, please do not hesitate to contact me.

Very Truly Yours,

SILKTOWN ROOFING, INC.

John Morrissey
General Manager
P. (203)-735-0552

REQUEST FOR PROPOSAL
BY
THE CITY OF WATERBURY
EDUCATION
Tinker Elementary School Roof Replacement
RFP# 7931
Project 151-0309RR
ATTACHMENT E
Revised Price Proposal

(Must be submitted as part of Proposal in a separate sealed envelope, marked "Confidential: Price Proposal.")

*: These offers are ONLY valid if we are provided the opportunity to perform work at **all 3** schools over the April vacation period. If we are not provided with that opportunity, there shall be no deduction given.
1: IN ADDITION TO THE ABOVE, there shall be no deductions for Tinker or Sprague if we are not awarded JFK High School.
If we are only awarded JFK - there would be no deduction from our bid price of $2,957,000.00.
Revised pricing below includes deductions pursuant to letter.

Date: 3-6-2024

Kevin McCaffery
Director of Purchasing
City of Waterbury
235 Grand Street, Room 103
Waterbury, CT 06702

Sir:

Pursuant to and in compliance with your RFP, the Undersigned,

Silktown Roofing, Inc.
(Print or Type Company/Corporate Name)

27 Pleasant Street
(Print or Type Business Address)
Manchester, CT 06040

having carefully examined all the RFP Documents, together with all Addenda, as acknowledged on Attachment C, and having informed itself fully in regard to all conditions and related requirements pertaining to the performance of services required under this RFP; and that with this representation, the undersigned makes this Proposal, as follows:

[Proposal continued on following page(s)]

Roof Replacement		
Description	**Amount (In Words)**	**Amount (In $)**
Tinker Elementary	Eight Hundred Twnety Six Thousand Dollars	$ 826,000.00*
	GRAND TOTAL	$ 826,000.00*

Alternates:

The undersigned proposes to furnish all Labor, Materials, Equipment and Services necessary to construct the items listed in the Alternates described in Section 012300 for the stipulated sum of:

DEDUCT ALTERNATE #1: Twenty (20) Year Warranty: Deduct from the Base Bid a Total of:

$ N/A _____ Dollars ($ N/A .00).
written figure

The project schedule will be (increased/decreased) by N/A calendar days to complete the work indicated under Deduct Alternate 1.

Unit Prices (See Section 012200):

As required by the Base Bid, should inadequate, deteriorated, or damaged materials be required to be removed as determined by the Architect or Owner, the cost to remove and replace the referenced material, (or credit for specified material not provided or installed) including all labor, material, equipment, and related furnishings is as follows:

Item	Description	Unit Price
1.	Tectum roof deck, thickness to match existing roof deck to be removed (including deteriorated roof deck removal, credit and add)	$ 15.00 sf
2.	Add pressure treated wood blocking, as specified, cut to fit around roof structure and systems installed	$ 4.50 bf
3.	Deduct pressure treated wood blocking, as specified, cut to fit around roof structure and system installed	$ 3.50 bf

END OF ATTACHMENT E

KEVIN McCAFFERY
DIRECTOR OF PURCHASING

OFFICE OF THE DIRECTOR OF PURCHASING
THE CITY OF WATERBURY
CONNECTICUT

March 6, 2024

John C. McConville
Silktown Roofing
27 Pleasant Street
Manchester, CT 06040

RFP# 7930, 7931, 7932
Project: Roof Replacement Kennedy High School, Tinker Elementary School and Sprague Elementary School

Dear Mr. McConville,

On behalf of the City of Waterbury I want to inform you that your firm has been selected for the above-mentioned City projects. In order to contract with the City of Waterbury a written contract must be approved by the Corporation Counsel and all required City Boards.

You will be contacted in the immediate future by a member of our Legal Department.

Sincerely,

Kevin McCaffery
Director of Purchasing

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE ON POLICY & LEGISLATION

Item #12.1

February 16, 2023

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee on Policy & Legislation moves that the Waterbury Board of Education approve new policy #4115.3 – Coaches Evaluation.

Personnel - Certified

Evaluation

Coaches

There shall be an annual evaluation of all coaches, to be conducted by the athletic director or the coach's immediate supervisor. Each coach shall receive a written copy of the evaluation.

The purposes of evaluation are:

1. To provide a systematic process whereby coaches may increase the effectiveness of their services to the athletic program utilizing the available professional resources.

2. To provide an opportunity for coaches to analyze their strengths and weaknesses, and to discuss objectively the contributions they have made to the athletic program.

3. To provide an opportunity for the administrative staff to analyze the strengths and weaknesses of individual coaches, and to utilize this knowledge to develop supervisory service to assist individuals in developing their competence.

4. To provide an effective means by which administrators may make recommendations concerning the continued employment of personnel, the granting of increments, and/or other recommendations to the Board of Education.

It is the responsibility of all administrators, coaches and other professional staff members to recognize that the district schools intend to seek and maintain the best qualified staff to provide quality coaching for student athletes. In keeping with this goal, all personnel are expected to participate fully in the appraisal process.

An integral part of this process is self-appraisal. The self and administrative appraisals include: knowledge of sports area, coaching skills and techniques, attitudes, behavior patterns, values and ethics.

When the Superintendent or her/his designee terminates or non-renews the employment of a coach from their coaching position who has held the same coaching position for three (3) or more years, notice shall be given to the affected coach within ninety (90) days of the completion of the applicable sport season. The coach may request a written statement from the Superintendent or her/his designee specifying the reason(s) for the termination or non-renewal. A responsive statement shall be provided within thirty (30) days of the request. Any decision to terminate or non-renew a coach's employment may be appealed by the coach pursuant to the terms of any applicable collective bargaining agreement, otherwise, a coach not covered by an applicable collective bargaining agreement may request a meeting with the Superintendent or her/his designee to discuss the reasons given for termination or non-renewal.

The Superintendent or her/his designee may terminate the employment of any coach at any time for reasons of moral misconduct, insubordination or a violation of the rules of the Board or District, or because a sport has been cancelled by the Board.

Legal Reference: Connecticut General Statutes

10-149 Qualifications for coaches of intramural and interscholastic athletic coaches (as amended by P.A. 13-41)

10-151b Evaluation by superintendent of certain educational personnel

10-220a In-service training

10-222e Policy on evaluation and termination of athletic coaches (as amended by P.A. 13-41)

P.A. 13-41 An Act Concerning Hiring Standards for Athletic Directors

P.A. 02-243 An Act Concerning Notification in Cases of Termination of Coaches

Policy adopted: [presented to policy committee 2/29/24]

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE ON POLICY & LEGISLATION

Item #12.2

February 16, 2023

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee on Policy & Legislation moves that the Waterbury Board of Education approve revised policy #6146 – Graduation Requirements (PA 23-21).

High School Graduation Exit Criteria

High School Graduation Exit Criteria for ***Graduating Classes of 2023 through 2026***

To complete the graduation requirements and receive a high school diploma from the City of Waterbury Public Schools, a student must meet the following requirements:

Graduation Requirements 25 credits	
9.0	Humanities (including civics and the arts)
9.0	STEM (Science, Technology, Engineering and Mathematics)
1.0	Foreign Language
1.0	Physical Education and Wellness
1.0	Health and Safety Education
1.0	Mastery-Based Diploma Assessment
3.0	Open Electives

A student must earn six (6) Carnegie units to be promoted to the 10th grade.

A student must earn twelve (12) Carnegie units and have completed the 10th grade to be promoted to the 11th grade.

A student must earn eighteen (18) Carnegie units to be promoted to the 12th grade.

Twenty-five (25) Carnegie Units are required for graduation. All students must follow the core curriculum as outlined by the Board of Education. *Further, if a student has credits withheld due to unexcused absences, in accordance with the Board of Education attendance policy, those credits are declared unearned credits*.

Students will only be eligible for promotion at the end of the academic school year and at the conclusion of summer school.

Carnegie Units	**Meeting Times**	**C.U.'s Earned**
Extended courses	15 periods/per week	3.0 c.u.
Extended courses	10 periods/per week	2.0 c.u.
Lab Sciences courses	6 periods/per week	1.2 c.u.
Regular courses	5 periods/per week	1.0 c.u.
Elective courses	4 periods/per week	.8 c.u.
½ year courses	5 periods/per week	.5 c.u.
½ year courses	4 periods/per week	.4 c.u.

Graduation from Waterbury Public Schools implies (1) that students have satisfactorily completed the prescribed courses of study for the several grade levels in accordance with their respective abilities to achieve, (2) that they have satisfactorily passed any examinations and satisfactorily demonstrated the district's performance standards, assessed in part by the statewide mastery examinations, established by the faculty and approved by the Board of Education, and (3) that they have fulfilled the legally mandated number and distribution of credits.

High School Graduation Exit Criteria for ***Graduating Classes of 2027 and each graduating class thereafter,***

To complete the graduation requirements and receive a high school diploma from the City of Waterbury Public Schools, a student must meet the following requirements:

Graduation Requirements 25 credits	
9.0	Humanities (including civics and the arts)
9.0	STEM (Science, Technology, Engineering and Mathematics)
1.0	Foreign Language
1.0	Physical Education and Wellness
1.0	Health and Safety Education
1.0	Mastery-Based Diploma Assessment
0.5	Personal Financial Management and Financial Literacy
2.5	Open Electives

A student must earn six (6) Carnegie units to be promoted to the 10th grade.

A student must earn twelve (12) Carnegie units and have completed the 10th grade to be promoted to the 11th grade.

A student must earn eighteen (18) Carnegie units to be promoted to the 12th grade.

Twenty-five (25) Carnegie Units are required for graduation. All students must follow the core curriculum as outlined by the Board of Education. *Further, if a student has credits withheld due to unexcused absences, in accordance with the Board of Education attendance policy, those credits are declared unearned credits*.

Students will only be eligible for promotion at the end of the academic school year and at the conclusion of summer school.

Carnegie Units	**Meeting Times**	**C.U.'s Earned**
Extended courses	15 periods/per week	3.0 c.u.
Extended courses	10 periods/per week	2.0 c.u.
Lab Sciences courses	6 periods/per week	1.2 c.u.
Regular courses	5 periods/per week	1.0 c.u.
Elective courses	4 periods/per week	.8 c.u.
½ year courses	5 periods/per week	.5 c.u.
½ year courses	4 periods/per week	.4 c.u.

Graduation from Waterbury Public Schools implies (1) that students have satisfactorily completed the prescribed courses of study for the several grade levels in accordance with their respective abilities to achieve, (2) that they have satisfactorily passed any examinations and satisfactorily demonstrated the district's performance standards, assessed in part by the statewide mastery examinations, established by the faculty and approved by the Board of Education, and (3) that they have fulfilled the legally mandated number and distribution of credits.

***High School Graduation Exit Criteria*, continued**

It is expected that the administration of each campus will apply measures of achievement to provide evidence that each student has progressed far enough toward school goals to warrant graduation according to the terms of paragraph #1 above.

The Board of Education shall award a high school diploma to any World War II veteran or veteran of the Korean Hostilities or Vietnam Era veteran requesting such diploma who left high school for military service as defined in the statutes and did not receive a diploma as a consequence of such service.

The Board of Education shall award a high school diploma to any person who (1) withdrew from high school prior to graduation to work in a job that assisted the war effort during World War II, December 7, 1941 to December 31, 1946, inclusive, (2) did not receive a diploma as a consequence of such work, and (3) has been a resident of the state for at least fifty (50) consecutive years.

The Board of Education may grant students high school credit for successful completion of coursework earned from an accredited institution of higher learning taken either during the school year or summer months.

Commencing with the graduating class of 2023 (beginning with the incoming class of (2019-2020) and for each graduating class thereafter, in order to graduate and be granted a diploma, students most satisfactorily complete a minimum of twenty-five (25) credits, including not fewer that (1) nine credits in the humanities, including civics and the arts; (2) nine credits in science, technology, engineering and mathematics; (3) one credit in physical education and wellness; (4) one credit in health and safety education; (5) one credit in world languages; and(6) a one credit mastery-based diploma assessment.

Commencing with the graduating class of 2027 (beginning with the incoming class of (2023-2024) and for each graduating class thereafter, in order to graduate and be granted a diploma, students most satisfactorily complete a minimum of twenty-five (25) credits, including not fewer that (1) nine credits in the humanities, including civics and the arts; (2) nine credits in science, technology, engineering and mathematics; (3) one credit in physical education and wellness; (4) one credit in health and safety education; (5) one credit in world languages; and(6) a one credit mastery-based diploma assessment; and (7) one-half credit in Personal Financial Management and Financial Literacy.

A student shall be excused from the physical education requirement upon presentation of a certificate form a physician or advanced practice registered nurse indicating that participation in physical education is medically contradicted because of the student's physical condition. The credit for physical education may be fulfilled by an elective.

In addition, also beginning with the graduating class of 2023, the Board of Education will provide adequate student support and remedial services for students. Such student support and remedial services shall provide alternate means for a student to complete any of the high school graduation requirements, previously listed if such student is unable to satisfactorily complete any of the required courses or exams. Such student support and remedial services shall include, but not be limited to, (1) allowing students to retake courses in summer school or through an on-line course; (2) allowing students to enroll in a class offered at a constituent unit of the state

***High School Graduation Exit Criteria*, continued**

system of higher education, allowing students who received a failing score, as determined by the Commissioner of Education, on an end of the school year exam to take an alternate form of the exam; and (3) allowing those students whose individualized education plans state that such students are eligible for an alternate assessment to demonstrate competency on any of the five core courses through success on such alternate assessment.

The Board of Education shall grant a student credit towards meeting high school graduation requirements for (1) completing a world-language course provided by a non-profit organization and (2) passing a subject area proficiency test identified and approved by the Commissioner of Education. Up to four credits for a private non-profit world language course shall be granted if the student achieves a passing grade on a test prescribed by the Commissioner of Education. In other subject areas, credit shall be granted, based upon successful passage of the subject area proficiency tests prescribed or identified and approved by the Commissioner of Education,* regardless of the number of hours spent by the student in a public school classroom learning the subject matter.

**The Commissioner, per statute, must prescribe or identify and approve the examinations within available appropriations.*

The fulfillment of the mandated one credit foreign language requirement, beginning with the class of 2023, can include the successful completion of a world language course in grades six seven or eight, or an online course successfully completed, or the successful completion of a course offered privately through a nonprofit provider, provided such student achieves a passing grade on an examination prescribed by the Commissioner and such credits do not exceed four. All credits earned toward meeting any of the graduation requirements through the successful completion of online courses must fulfill the requirements established.

The Board shall require the Superintendent to create a Student Success Plan for each enrolled student, beginning in grade six. Such plan shall include a students' career and academic choices in grades six to twelve, inclusive. Beginning in grade six, such Student Success Plan shall provide evidence of career exploration in each grade including, but not limited to, careers in manufacturing. The Board shall utilize the Department of Education's issued and revised guidance regarding changes to such student's success plans.

Per statute (C.G.S. 221a(f)) the determination of eligible credits is at the discretion of the Board of Education, provided the primary focus of the curriculum of eligible credits corresponds directly to the subject matter of the specified course requirements. The Board may permit a student to graduate during a period of expulsion if the Board determines the student has satisfactorily completed the necessary credits. The graduation requirements shall apply to any student requiring special education except when the Planning and Placement Team (PPT) determines the requirement not to be appropriate.

A credit shall consist of not less than the equivalent of a forty-minute class period for each school day of a school year except for a credit or part of a credit toward high school graduation earned (1) at an institution accredited by the Board of Regents for Higher Education or State Board of Education or regionally accredited, (2) through on-line course work or (3) through a demonstration of mastery based on competency and performance standards, in accordance with guidelines adopted by the State Board of Education.

High School Graduation Exit Criteria, continued

Only courses taken in grades nine through twelve, inclusive, and that are in accordance with the state-wide subject matter content standards, adopted by the State Board of Education shall satisfy the graduation requirements except that the Board may grant a student credit toward meeting the high school graduation requirements upon the successful demonstration of mastery of the subject matter content described in this section achieved through educational experiences and opportunities that provided flexible and multiple pathways to learning, including cross-curricular graduation requirements, career and technical education, virtual learning, work-based learning, service learning, dual enrollment and early college, course taken in middle school, internships and student designed independent studies, provided such demonstration of mastery is in accordance with such state-wide content standards; toward meeting a specified course requirement upon successful completion in grade seven or eight of a course that corresponds directly to the subject matter of a specified course requirement in grades nine through twelve.

Connecticut Seal of Biliteracy

Commencing with the graduating class of 2018, and for each graduating class thereafter, the Board of Education, utilizing criteria established by the State Board of Education, may/shall affix the "Connecticut State Seal of Biliteracy" to a diploma awarded to a student who has achieved a high level of proficiency in English and one or more foreign languages. "Foreign language" means a world language other than English and includes American Sign Language and any other language spoken by a federally recognized Native American tribe. The Board of Education shall include on such student's transcript a designation that the student received the "Connecticut Seal of Biliteracy."

Transfer and Home School Students

For students who transfer to Waterbury Public Schools from another state, country, school, program, or home-schooling situation, including educational programs that are not aligned with the District's High School's cross curricular and content area graduation standards, the Principal shall evaluate the value of the student's prior educational experiences and determine to what degree the student has met the school's graduation requirements.

After enrolling in the District, these students will need to satisfy all assessment, proficiency, and graduation requirements in the appropriate subject areas, as determined by the Principal or his/her designee. The Superintendent will ultimately determine whether these students are eligible to receive a diploma. Home-schooled students must have attended a Waterbury Public School High School for a minimum of two (2) years or four (4) semesters to be eligible for a diploma.

Students Receiving Special Education Services

Students who successfully meet the District's cross-curricular and content-area graduation standards, as specified in the goals and objectives of their Individualized Education Plans (IEP), will be awarded diplomas.

Academic Advancement Program

The Board of Education permits students in grades eleven and twelve to substitute (1) achievement of a passing score on an existing nationally recognized examination as determined, by the State Department of Education, or series of examinations approved by the State Board of Education, (2) a cumulative grade point average determined by the State Board of Education and (3) at least three letters of recommendation from school professionals (defined in 10-66dd), for the required high school graduation requirement. The State Board of Education will issue an

High School Graduation Exit Criteria, continued

Academic Advancement Program Certificate to any student successfully completing such program. The Academic Advancement Program Certificate shall be considered in the same manner as a high school diploma for purposes of determining eligibility of a student for enrollment at a Connecticut public institution of higher education.

The Board of Education shall permit a student to graduate from high school upon the successful completion of the above described academic advancement program.

Participation in Graduation Ceremony

A student must complete all Board of Education requirements for a high school diploma to participate in graduation exercises.

(NOTE: Graduating Class is defined as a group of students who started ninth grade for the first time and are expected to graduate in four years. For example, if a student started as a freshman in 2019/2020 then their expected graduating class would be 2023.)

(cf. 5121 - Examination/Grading/Rating)
(cf. 5123 - Promotion/Acceleration/Retention)
(cf. 5126 - Academic Recognition)
(cf. 6111 - School Calendar)
(cf. 6146.1 - Grading and Reporting System)
(cf. 6146.12 - Dual Enrollment and Early College)
(cf. 6146.2 - Statewide Proficiency/Mastery Examinations)
(cf. 6146.13 - Multiple Pathways)
(cf. 6172.6 - Virtual/On-line Courses)

Legal Reference: Connecticut General Statutes

10-5 State high school diploma" "honors diploma." Payment of fees; exceptions. (as amended by PA 17-29)
10-5c Board examination series pilot program. Issuance of certificate (as amended by P.A. 13-247 and P.A. 15-215)
10-14n State-wide mastery examination. Conditions for reexamination. Limitation on use of test results. (as amended by Section 115 of PA 14-217)
10-16(l) Graduation exercises. (as amended by P.A. 96-108, An Act Concerning Student Use of Telecommunication Devices and the Establishment of Graduation Dates)
10-221a High school graduation requirements. (As amended by P.A. 00-124, An Act Concerning High School Diplomas and Veterans of World War II, P.A. 00-156, An Act Requiring A Civics Course for High School Graduation, P.A. 08-138, An Act Concerning High School Credit for Private World Language Courses and Other Subject Areas, P.A. 10-111, An Act Concerning Education Reform in Connecticut, P.A. 11-135, An Act Concerning Implementation Dates for Secondary School Reform, P.A. 13-57, An Act Concerning Honorary Diplomas for Vietnam Veterans, P.A. 13-122, An Act Concerning Minor Revisions to the Education Statutes, P.A. 13-247, Budget Implementer Bill, P.A. 15-237 An Act Concerning High School Graduation and P.A. 16-4(SS), section 310), PA 17-42, An Act Concerning Revisions to the High School Graduation Requirements, PA 17-29, An Act Concerning Connecticut's Seal of Biliteracy) and P.A. 19-58, An Act Promoting Careers in Manufacturing to Public School Students)
10-233(a) Promotion and graduation policies. (as amended by PA 01-166)
P.A. 13-108, An Act Unleashing Innovation in Connecticut Schools.
P.A. 13-247, An Act Implementing Provisions of the State Budget.
P.A. 15-237 An Act Concerning High School Graduation
P.A. 17-42 An Act Concerning Revisions to the High School Graduation Requirements
P.A 23-21 An Act Concerning Financial Literacy Instruction

Policy adopted by the Waterbury Board of Education on March 7, 2013.
Revised on May 7, 2015, revised on September 3, 2015, revised on August 16, 2018, revised on August 22, 2019, revised on February 20, 2020, and revised on D R A F T

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE ON POLICY & LEGISLATION

Item #12.3

February 16, 2023

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee on Policy & Legislation moves that the Waterbury Board of Education approve revised policy #7230.2 – Indoor Air Quality/Heating, Ventilation, and Air Conditioning (HVAC) (PA 23-167).

Indoor Air Quality/Heating, Ventilation, and Air Conditioning (HVAC)

The Board of Education recognizes that the maintenance of acceptable temperature, relative humidity and adequate fresh air ventilation in school buildings is a primary objective in the creation and maintenance of an optimal learning environment.

The Superintendent or his/her designee shall implement an indoor air quality program that provides for ongoing maintenance and facility reviews, in accordance with all applicable state statutes, necessary for the maintenance and improvement of the indoor air quality of all District facilities.

PURPOSE: The purpose of this policy/regulation is to ensure that reported indoor air quality concerns receive prompt and adequate response and to provide guidelines for a comprehensive, systematic diagnostic evaluation of conditions.

DEFINITIONS (for the purpose of this policy):

- ***Indoor Air Quality* (IAQ)** means chemical, physical, or biological characteristics of indoor air which can adversely affect the health, comfort, or overall wellbeing of building occupants.
- ***Intermittent sources of indoor pollution*** means contaminants that are not constantly present in the facility or workplace.
- ***IAQ health effects*** means non-specific symptoms, which may be related to, caused by, or exacerbated by IAQ conditions. These symptoms can include headaches, fatigue, nausea, and dermal, eye, or respiratory irritation.
- ***NIOSH*** means the National Institute for Occupational Safety and Health.
- **ASHRAE** means American Society of Heating, Refrigerating, and Air Conditioning Engineers
- **Standard 62** means the recognized standard for ventilation system design and acceptable indoor air quality (IAQ) in order to minimize adverse health effects for occupants.

Heating, Ventilation, and Air Conditioning (HVAC)

Heating, ventilation, and air Conditioning systems shall be maintained in accordance with the prevailing maintenance systems, such as Standard 62. The Board directs the Superintendent or his/her designee to ensure that such systems shall be operated continuously during the hours in which students or school personnel occupy school facilities except during periods of scheduled maintenance or emergency repairs or at other times when it can be demonstrated that the air supply system meets the Standard 62 requirements for air changes per hour.
Records shall be maintained on the maintenance of the District's heating, ventilation, and air conditioning systems for a period of not less than five years. Such records shall be available to the public upon request.

Prior to January 1, 2025, and every five years thereafter, the local Board of Education shall provide for a uniform inspection and evaluation of the heating, ventilation and air conditioning

system within each school building under its jurisdiction. Such inspection and evaluation shall be performed by a certified testing, adjusting and balancing technician, an industrial hygienist certified by the American Board of Industrial Hygiene or the Board for Global EHS Credentialing, or a mechanical engineer. Such heating, ventilation and air conditioning systems inspection and evaluation shall be submitted to Department of Administrative Services (DAS).

The District shall report biennially, in a manner as required, to the Commissioner of Education on the condition of its facilities, its long range facilities program, its air quality program, and green cleaning program. The Board must utilize standard reporting forms to conduct and report on both IAQ and HVAC inspections and must provide The Department of Administrative Services (DAS) the completed forms for each school. The forms and/or reports must be made available at a regularly scheduled Board of Education meeting and on the Board of Education/individual school website.

The inspection and evaluation program shall include, but not be limited to, a review, inspection or evaluation of the following:

1. the heating, ventilating, and air conditioning (HVAC) systems;
2. radon levels in the air and water;
3. potential for exposure to microbiological airborne particles, including fungi, mold, and bacteria;
4. chemical compounds of concern to indoor air quality, including volatile organic compounds;
5. pest infestation, including insects and rodents;
6. pesticide usage;
7. the presence and plans for removal of certain hazardous substances identified under federal law;
8. ventilation systems;
9. plumbing, including water distribution systems, drainage systems, and fixtures;
10. moisture incursion (leaks);
11. the facilities' overall cleanliness;
12. building structural elements, including roofing, basements, and slabs;
13. the use of space, particularly in areas designed to be unoccupied; and
14. the provision of indoor air quality maintenance training for building staff.

~~**GENERAL INFORMATION:** Indoor air quality is typically influenced by one or more of the following four factors:~~

- ~~Occupants and their activities and behaviors.~~
- ~~HVAC systems and pressure relationships-ventilation conditions that can potentially move contaminants from one area to another.~~
- ~~Contaminant (pollution) sources.~~
- ~~Pollution pathways; potential avenues of dispersion or migration of airborne contaminants.~~

~~**POLICY**~~

1. Reports, complaints, or concerns involving odors, discerned or perceived airborne contaminants, symptoms typically associated with IAQ health effects, discomfort, and the overall quality of air in any area within the facility will immediately be directed to the school nurse and the School Inspector.

2. The School Inspector will work with the school nurse and building principal to coordinate a pragmatic, systematic, and documented approach to a diagnostic IAQ evaluation, and ensure that any IAQ related reports or complaints are addressed in a timely and adequate fashion. The results of IAQ evaluations can include the identification of possible causes, recommendations for corrective action, or suggested direction for further investigation.

3. The School Inspector will evaluate the need for emergency response and area evacuation when strong odors, fumes, vapors, visible particulates, etc. are believed to be emanating from a source of air borne toxins or hazardous substances and there is a potential for exposure.

4. Responding personnel will follow established protocols when conducting a diagnostic evaluation of IAQ conditions. The evaluation process should incorporate applicable principles of industrial hygiene. It should focus on the collection and analysis of evidence to enable the evaluator to rule out exceptions and eventually establish root causes of and contributing factors to environmental stressors.

5. Individuals who expressed IAQ concerns and other occupants in impacted areas will be apprised of the progress of the investigation and any significant findings, conclusions, and action taken.

PROCEDURE

1. The first step in addressing an occupant complaint regarding IAQ begins with the complaint itself. The person receiving the initial phone call, or who is verbally informed of a complaint, should attempt to gather as much information as possible, directly from the person expressing the concern.

2. Prior to beginning an investigation, a clear definition and understanding of the nature of the complaint should be developed. The objective of an IAQ investigation is to gain enough knowledge of the issue to successfully resolve it

Occupant/Employee Interview:

3. The employee who communicated the complaint as well as others working in the same vicinity should be interviewed. This will serve two purposes:

   a) To assist the responding person in obtaining specific information about the nature of the concern, any actual or perceived health effects, and potential contributing factors; and
   b) To establish a vehicle of dialogue with the person, encourage open communication about the problem, and help to foster a high level of confidence that the issue will receive attention and diligent effort will be made to resolve it.

4. The IAQ evaluator, the facilities manager, should select a location for the interview where the person feels comfortable to speak freely.

5. Questions to be asked during and employee/occupant interview should include:
   - What is the nature of the symptoms or discomfort experienced? Describe odor if noticed.
   - At what specific location(s) do the symptoms discomfort, or odors become apparent?
   - When do the symptoms, discomfort, or odors typically begin? Do they go away? If so, when?
   - Do any other events, operations, processes, or activities appear to coincide with your symptoms or odors?
   - Have operational or chemical processes recently changed?
   - Are there any observations about the building conditions or work environment that may appear to need attention or help explain the issue (temperature, humidity, inadequate ventilation, stagnant air, open windows or doors, odors)?
   - Do you have knowledge of anyone else experiencing similar discomfort?
   - Do you have any health condition that may cause you to be particularly sensitive or susceptible to environmental conditions?

6. The IAQ evaluator may expand the interview by adding questions to help improve understanding about the environmental conditions and perceptions as well as help discover the cause or develop a hypothesis.

7. Pertinent information must be documented along with the names, departments, positions, work shifts, and extensions of the individuals interviewed for future reference.

Area Walk-Through

8. The IAQ evaluator will conduct a thorough tour of the areas in question for the purposes of collecting information through direct observation about conditions and possible contributing factors. The following key items should be examined:
   - Walk through specific area and adjacent areas to look for an easily identifiable source of contamination.
   - Hazardous materials or chemical use.
   - A chemical spill or release.
   - Cooking.
   - Construction or remodel work involving materials with potentially volatile organic compounds (VOC's) such as paint, adhesives, mastic, caulking, and activities that can cause suspension of dust, fibers, and other particulates.
   - New carpeting or furnishings.
   - Poor general ventilation or stagnant air.
   - Inspect nearby sinks and floor drains for dry "P" traps.
   - Check for evidence of molds or other microbial growth.
   - Investigate surrounding people for animal hair, perfumes etc. that may cause allergic reactions on other people.

9. The walk-through should include a visual examination of the HVAC systems that serve both the area of concern and other areas sharing common ventilation duct work. Check for obvious conditions such as moist filters, cleanliness of fans, dusts, louvers etc.

9.1 Observe nearby air intakes for:
   - Construction, roofing, and other projects, which may release vapors, fumes, or particulate matter.
   - Idling vehicles emitting exhaust fumes.
   - Nearby work with chemicals.
   - Fires.

- ~~Significant amounts of pollen or dust.~~
- ~~Pesticides or sewage smells.~~

~~9.2 Inspect intake filters and visible duct interiors for excessive dust, mold, or other microbial growth, debris, or nearby standing water or ponding. Check drip pans, humidifiers etc. for visible microbial growth.~~

~~Collecting Additional Information:~~

~~10. Additional information should be gathered by means of direct observation and from existing documentation in order to support findings or if the cause of the problem is not identified through the processes of employee interviews or an initial walk-through.~~

~~11. The information to be collected should pertain to those areas identified through the evaluation processes that require further attention or clarification. The evaluator should examine the following areas to collect additional supporting information:~~

- ~~Mechanical drawings to better trace pollution pathways.~~
- ~~Pertinent logs, incident reports, and preventive maintenance/corrective maintenance schedules and reports.~~
- ~~HVAC operating cycles, seasonal cycles, and weather related patterns.~~

~~12. Outside industrial hygiene, HVAC, or environmental services may be sought to assist in the application of technical and scientific disciplines, such as monitoring and testing for specific contaminants. The decision to seek outside services can depend on the urgency of the situation, properties and hazards of the materials potentially involved, and acuity of symptoms exhibited by affected employees. Preferred contractors include:~~

~~ENVIROMED SERVICES – 203-238-4846~~

~~Reporting Results:~~

~~13. Once adequate information has been collected, the evaluator should thoroughly review findings to support and validate hypotheses previously developed, or clarify questionable aspects of observations or data. The evaluator should begin a "by exception" approach to formulating results. The results of the IAQ diagnostic assessment can include:~~

- ~~The identification of the apparent causes of the original concern or complaint, based upon the assessment of pertinent data and information from the evaluation process.~~
- ~~The identification of other potential IAQ issues not related to the original concern.~~
- ~~Information to form the basis for a corrective action plan.~~
- ~~The justification for further evaluation.~~

~~14. The results of an IAQ diagnostic evaluation must be documented and properly communicated to the individual(s) who reported the concern, as well as the building principal, school nurse, and personnel responsible for evaluating or carrying out recommendations. The report should include:~~

- ~~Briefly describe the nature of the concern or complaint and list each step of the evaluation process.~~
- ~~Discuss any preliminary hypothesis of cause and describe findings.~~
- ~~Identify the need for further investigation.~~

Indoor Air Quality, continued

- Clearly communicate why the cause of the original complaint could not be identified.
- Describe corrective action taken or propose strategies for problem resolution
- Provide a schedule for monitoring and evaluating the effectiveness of any changes resulting from the diagnosis of IAQ conditions.

Recordkeeping:

15. Copies of the IAQ report and any supporting documentation (i.e. interview notes, working papers, incident reports, test logs etc.) will be maintained in the School Inspector's office with copies in the building principal's office and school nurses office. IAQ investigations will be discussed and tracked through the existing Safety Committee information management process.

Legal Reference: Connecticut General Statutes
10-220 Duties of boards of education
10-231(f) Indoor air quality committees
10-282(19) Definitions
10-283 Applications for grants for school building projects
10-286 (a)(9) Computation of school building project grants
10-291 Approval of plans and site. Expense limit
10-292 Review of final plans by Commissioner of Education. Exceptions; role of local officials
10-231g Green Cleaning Program at schools: Definitions, Implementation, Notice
PA 22-118 An Act Concerning the State Budget for the Biennium Ending June 30, 2023
PA 23-167 An Act Concerning Transparency in Education

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE OF THE WHOLE

Item #13.1

February 16, 2023

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee of the Whole moves that the Waterbury Board of Education approve Waterbury Public School's "Increasing Educator Diversity Plan - 2024".

Increasing Educator Diversity Plan Template

WestEd
WestEd.org

IMPORTANT NOTES:

1. Formal approval by your local or regional board of education, or equivalent governing body for schools must be obtained prior to submitting your Increasing Educator Diversity Plan. Be prepared to provide the day, month and year that the plan was approved by the board or equivalent governing body as part of the upload of your submission.
2. In the absence of an original motion or a preexisting board or board equivalent policy expressly conferring authority on the superintendent or equivalent schools administrator to make any necessary Plan revisions, the school board or equivalent governing body will be expected to formally approve any necessary revisions to its Plan prior to resubmitting the revised Plan by May 15, 2024

Increasing Educator Diversity Plan

WATERBURY PUBLIC SCHOOLS

Waterbury Public Schools' Increasing Educator Diversity Plan has been developed in alignment with the CSDE Creating a District Plan to Increase the Racial, Ethnic, and Linguistic Diversity of Your Educator Workforce Guidebook.

District:	Waterbury Public Schools
Vision:	We are committed to recruit, hire, deliberately develop, and retain a racially, ethnically, culturally, and linguistically diverse group of highly effective educators to prepare students to transform their world.
Theory of Action:	If we commit to create and refine efficient structures to deliberately develop, and retain a racially, ethnically, culturally, and linguistically diverse group of highly effective educators then students will be prepared socially, emotionally, and academically.
Team Lead:	Juan Mendoza (*Assistant Superintendet-Human Capital Department)*
Team Members:	Dr. Darren Schwartz (*Deputy Superintendent*), Nicholas Albini (*Chief Operating Officer*), Janet Frenis (*Chief Academic Officer*), Jade Gopie (*Assistant Superintendent*), Dr. Joseph Johnson (*Assistant Superintendent*), Dr. Lara White (*Director of Equity & Inclusion*), Carli Carpentieri (*Talent Supervisor*), Marissa Waters (*Talent Supervisor*), Pete McCasland (*Principal*), Carmen Rijos (*Grade 5 Classroom Teacher*)

Recruitment

Hiring

Retention

Increasing Educator Diversity Plan

WATERBURY PUBLIC SCHOOLS

Recruitment

SMART Goal *(what is it we are trying to do?)*	**Who manages the goal?** *(name and position)*	**Strategies/Key Activities (how are we going to do it?)**			**Indicators of Progress** *(How will we know if we are on track for success?)*	**Resources Required** *(What people, time, money and technology will be needed?)*	**Risks and Mitigation** *(What could go wrong? How will you make that less likely to happen?)*	**Communication/Engagement Efforts** *(What people need to be consulted/engaged? What needs to be communicated? To whom?)*
		What?	**Who owns this?**	**By when?**				
SMART Goal: Increase the percentage of multilingual educators and teachers of color entering these programs each year by 10%. **% of WPS GYO Participants of Color Data**: 2020-2021 N/A 2021-2022 57% (4) 2022-2023 55.5% (5) **Outcomes:** WPS will diversify our candidate pool by implementing new and strengthening our current "Grow Your Own" (GYO) district initiatives providing alternative pathways for non-certified staff to pursue their teaching certification.	Juan Mendoza, *Assistant Superintendent/ Director of Human Capital (AS/DHC)* Carli Carpentieri & Marissa Waters, *Talent & Professional Development Supervisors (TPDS)* Janet Frenis, *Chief Academic Officer (CAO)* Dr. Lara White, *Director of Equity & Inclusion (DEI)*	**GYO Programs:** 1. CT TRP 2. Relay 3. NextGen Educators 4. UCONN Teacher Residency Program 5. The Central Inspire Teacher Residency Program 6. WPS Teacher Apprenticeship Program (CCSU) 7. University Partnerships (PR) 8. EdRising	**Human Capital Dept.- Talent Office** (Juan Mendoza, Carli Carpentieri, and Marissa Waters)	**Maintain Current GYO (Ongoing)**: -CT TRP -Relay -NextGen Educators -University Partnerships -UCONN Teacher Residency Program -EdRising **Implement New GYO (Fall 2024)**: -The Central Inspire Teacher Residency -WPS Teacher Apprenticeship	Send recruitment emails with information on each GYO Program to our community contacts and WPS non-certified staff (paraprofessionals, classroom assistants, substitute teachers, etc.). Host informational sessions for interested candidates throughout the year.	-Funding & staff to sustain GYO programs -Certified TEAM Mentors to host GYO participants -Professional learning for EdRising teachers and funding for competitions/conferences -More flexibility with the Alliance Increasing Educator Diversity Grant monies. We would like to utilize funds for advertising, HBCU/HSI fair costs (travel, registration), and to cover the $6.000 mentor stipend for our residency programs. Currently the grant states that we cannot exceed $500 towards a Mentor Stipend; however, the CT TRP-requires $6,000 per Mentor	Lack of interest in field; the limited number of candidates of color applying to teaching positions has led to districts competing for the same candidates, Communicate positive aspects of the field and specific benefits to teaching in WPS: -Loan forgiveness -Fringe benefits -Schedules similar to children -Opportunities to continue education (Waterbury U-Masters in Curriculum & Instruction covered by the district) -Job security -Large district (32 schools) opportunities for career growth -Provide high quality professional learning	Host informational sessions with TEACH Connecticut Collaborate with Director of Communications to Advertise: -Flyers -Social media -Billboards -TV/Radio commercials -Email community contacts WPS EdRising Students create multimedia production for teacher recruitment
		Identify and remove bias from application questions	**Human Capital Dept.** (Juan Mendoza, Carli Carpentieri, and Marissa Waters) **Academic Office** (Janet Frenis) **Director of Equity & Inclusion** (Dr. Lara White)	June 2024	Questions will be reviewed and revised by June 2024. New questions will be utilized going forward.	Time to update application questions for all educator positions	Platform may not allow all application questions to be edited; work with vendor if needed	Training for any HR staff member posting positions
		Attend HBCU & HSI Career Fairs	**Talent Office** (Carli Carpentieri and Marissa Waters)	Ongoing (Fall & Spring Fairs)	Will attend at least 5 HBCU & HSI Career Fairs each year. Increase in number of qualified TOC applicants received.	Funding to attend HBCU/HSI career fairs, Applitrack System & Google Docs to track applicants	Many HBCUs and HSIs are out of state: -Utilize WPS Brochure to expand on benefits of teaching in Waterbury, CT	Post positions on WPS website, CTReap, Handshake, HBCUCareers, Diversity in Ed *Diversity Recruitment Partners*
		Utilize data from community focus groups to identify and remove barriers preventing BIPOC students from becoming a WPS educator	**Director of Equity & Inclusion** (Dr. Lara White) **RRAICES** (Community Organization)	June 2024	Review data collected and collaborate with RRAICES on creating an educator guide specific for WPS students. Increase in number of former WPS student applications.	RRAICES-funded by the Nellie Mae Advancing Community-School Partnerships 2 year grant	Willingness to participate in survey, need to ensure large enough sample size for reliable results.	Advertised through community partnerships
		RRAICES will create a guide to becoming a WPS Educator in English, Spanish, and Portuguese.	**Director of Equity & Inclusion** (Dr. Lara White) **RRAICES** (Community Organization)	June 2024	Guide will be created by June 2024 and be distributed at community events going forward.		Additional language translation needed (Albanian, Arabic)	

Increasing Educator Diversity Plan

WATERBURY PUBLIC SCHOOLS

Hiring

SMART Goal *(what is it we are trying to do?)*	Who manages the goal? *(name and position)*	Strategies/Key Activities (how are we going to do it?)			Indicators of Progress *(How will we know if we are on track for success?)*	Resources Required *(What people, time, money and technology will be needed?)*	Risks and Mitigation *(What could go wrong? How will you make that less likely to happen?)*	Communication/Engagement Efforts *(What people need to be consulted/engaged? What needs to be communicated? To whom?)*
		What?	**Who owns this?**	**By when?**				
SMART Goal: Maintain at least a 25% hiring rate for multilingual teachers and teachers of color each year. **TOC Hiring Data** 2020-2021 41 (26.6%) 2021-2022 45 (22.6%) 2022-2023 70 (35.6%) **Outcomes**: WPS will ensure the application and interview process follows best practices of hiring educators through an equity lens.	Juan Mendoza (*AS/DHC)* Geen Thazhampallath, (*Provisional Director of Personnel)* Carli Carpentieri & Marissa Waters (*TPDS*) Dr. Lara White (*DEI*) Building Admin & District Supervisors	Develop an anti-bias training video for interview panelists to provide a more equitable & inclusive experience for participants	**Director of Equity & Inclusion** (Dr. Lara White)	June 30. 2024	Create anti-bias training video and document attendance to ensure equitable interview practices are adhered to.	Time, training; video produced in collaboration with DEI & HCD	Training refreshers would be needed annually	Building admin & interview panelists
		New teacher equity training & bus tour of school communities	**Director of Equity & Inclusion** (Dr. Lara White) **Talent Office** (Carli Carpentieri and Marissa Waters)	Annually During WPS New Teacher Orientation	Equity training and a bus tour of school communities will occur during WPS New Teacher Orientation at the beginning of each year. New Teacher Feedback Surveys will be distributed 3 times during their first year in WPS (BOY, MOY and EOY).	DEI Time, Unearthing Joy by Gholdy Muhammad	Some staff may be reluctant to change. Professional learning should be ongoing in order to shift mindset.	Building Admin., Supervisors
		Revise & utilize interview guidelines in shared Google Drive, Include WPS Students in the interview process when freasible	Interview Committees	Ongoing	Review and revise interview guidelines. Upload revised guidelines to shared *Teacher Interview Google Drive* by June 2024.	Google Shared Drive, PL, training new admin	Time constraints & short staff could limit interview panels	HR Staff
		Streamline the onboarding process	**Director of Personnel** (Geen Thazhampallath) **HR Generalists** (Jennifer Orso-Marino, Lisa Dunn, Christine Farris, Julie Ostuno)	June 2024	Increase accessibility to onboarding forms by creating fillable PDFs and online links to decrease amount of onboarding time.		We need to explain the importance of making a seamless process for our applicants	
		Identify percentage of qualified AOC/TOC applicants hired	**Talent Office** (Carli Carpentieri and Marissa Waters)	Ongoing-End of Each Year June 30th	Track percentage of qualified AOC/TOC applicants hired each year.	Google Docs & LookerStudio, time to collect data	Utilize formulas in Google Docs/ Lookerstudio to eliminate human errors in data collection	Data reported annually to WPS Board of Education

Increasing Educator Diversity Plan

WATERBURY PUBLIC SCHOOLS

Retention

SMART Goal *(what is it we are trying to do?)*	Who manages the goal? *(name and position)*	Strategies/Key Activities (how are we going to do it?)			Indicators of Progress *(How will we know if we are on track for success?)*	Resources Required *(What people, time, money and technology will be needed?)*	Risks and Mitigation *(What could go wrong? How will you make that less likely to happen?)*	Communication/Engagement Efforts *(What people need to be consulted/engaged? What needs to be communicated? To whom?)*
		What?	**Who owns this?**	**By when?**				
SMART Goal: Retain 95% of Multilingual Teachers (MT) and Teachers of Color (TOC) by the end of each school year. **Outcome**: WPS will create equitable school environments and career growth opportunities where MT/TOC feel valued, safe, and supported. **Percentage of MT/TOC Retention Data has not been tracked. We will begin collecting this data by EOY 2024.*	Jan Frenis (*CAO*) Juan Mendoza (*AS/DHC*) Geen Thazhampallath (Provisional Director of Personnel) Carli Carpentieri & Marissa Waters, (*TPDS*) Dr. Lara White, (*DEI*) Building Admin & District Supervisors	Create systems to track MT & TOC retention data	**Talent Office** (Carli Carpentieri and Marissa Waters)	Spring 2024	Collect MT & TOC retention data each year by July 1	Utilize Google Suite as data collection platform	Google Suite Updates -stay up to date with Google Certification & trainings	TPDS communication with HR generalists
		Affinity groups for educators of colors	**Director of Equity & Inclusion** (Dr. Lara White)	Monthly Meetings	Create affinity groups for our WPS educators of color. Host monthly meetings and document using an agenda.	Time, stipends if meetings are held after school hours	Teacher burnout may result in low participation rates -offer stipends and flexible meeting times	DEI, teachers, admin, community member
		District Equity Leadership Team (DELT) will identify and recommend various topics and skills needed for professional learning and district training			Host monthly meetings and document using an agenda.			
		School Equity Leadership Teams (SELT) will identify, procure, and provide resources, training, and support to create more inclusive and equitable school communities			Host monthly meetings and document using an agenda.			
		Professional Learning on equitable policies & practices		Ongoing-During District-Wide PL Days	Create professional learning schedule and share with staff in advance. Utilize Unified Talent Perform to store all professional learning resources. Send out PD survey after each professional learning session.	Time, funding for PL, Great Schools Partnership, Instructional Coaching with Cormier	Staff may be reluctant to change -professional learning must be ongoing in order to shift mindset	
		Professional Learning on Improving School Culture & Climate	**Academic Office** (Janet Frenis) **Elementary & Secondary Assistant Superintendents** (Jade Gopie and Dr. Joseph Johnson and)		Create professional learning schedule and share with staff in advance. Utilize Unified Talent Perform to store all professional learning resources. Send out PD survey after each professional learning session.			Directors, building admin, supervisors
		Strategically use data to recruit more BIPOC TEAM Mentors & review TEAM Mentor process to pair new TOC with TOC Mentor (when feasible)	**Talent Office** (Carli Carpentieri and Marissa Waters) **District TEAM Coordinators** (Maria Stasaitis and Melissa DiGiovanni)	July 2024	Send recruitment emails to MT & TOC with information on becoming a WPS TEAM Mentor. Host informational sessions with District TEAM Coordinators and provide additional TEAM Mentor trainings in the summer.	Time & Stipends for TEAM training	Teacher burnout may result in low participation rates of TEAM Mentors taking on TEAM Mentees -offer additional stipends	District TEAM Coordinators, TEAM Mentors
		Administer Anonymous Surveys	**Talent Office** (Carli Carpentieri and Marissa Waters)	Ongoing BOY, MOY, EOY	Distribute exit survey to all WPS staff who resign or retire to collect feedback. Review exit survey responses to address any areas of concern in order to create a more desirable workplace.	Google Forms, time to analyze survey results	Low survey participation rate -limit amount of questions	Multilingual Teachers and Teachers of Color
		Begin tracking retention rates of MT & TOC each year			Collect percentage of MT & TOC retention rates each year.	Time, Google Suite	Google Suite Updates -stay up to date with Google Certification & trainings	Data reported annually to WPS Board of Education

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE OF THE WHOLE

Item #13.2

February 16, 2023

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee of the Whole moves that the Waterbury Board of Education approve a Facility/Equipment User Agreement, at no cost, with Connecticut State Community College at its Naugatuck Valley Campus for the period of April 9, 2024 through December 31, 2024.

WATERBURY
PUBLIC SCHOOLS

Nicholas J. Albini
Chief Operating Officer
(203) 346-2340 Ext. 11110
nalbini@waterbury.k12.ct.us

TO: Honorable Board of Education Commissioners
Honorable Board of Aldermen

FROM: Nicholas J. Albini, Chief Operating Officer

DATE: March 13, 2024

SUBJECT: Facility/Equipment Use Agreement with CT State Community College (NVCC)

The Education Department respectfully requests your review and approval of the Connecticut State Community College Facility/Equipment Use Agreement at the Naugatuck Valley Campus. This Agreement has been reviewed and approved by the Office of the Corporation Counsel.

Waterbury Public Schools would like to use the Founder's Hall Community Room on April 9, 2024 for Dr. Ruffin to hold a meeting with high school students on her Superintendent's Student Advisory Council. NVCC has the facility space to accommodate a larger group of students allowing them to participate in the meeting's activities. The location will be free from disturbances and disruptions from school building students and staff following a regular class day schedule. NVCC will provide facility space free of charge and is within Waterbury for ease of access. This agreement is a sole source and exempt from the bidding process per the Purchasing Director.

This agreement with the Board of Education will be effective through December 31, 2024 with the inclusion of an event confirmation for each individual use.

Thank you for your consideration.

FACILITY/EQUIPMENT USE AGREEMENT

This Facility/Equipment Use Agreement ("Contract") is entered into by and between Connecticut State Community College, a constituent unit of the State of Connecticut System of Higher Education, with an address of 185 Main Street, New Britain, CT 06051, on behalf of its Naugatuck Valley Campus, located at 750 Chase Parkway, Waterbury, CT 06708 and Waterbury Public Schools (hereinafter the "Contractor"), with a principal place of business at 236 Grand Street, Waterbury, CT 06702.

I. USE and TERM: ☒ USE OF FACILITIES AND/OR ☒ USE OF EQUIPMENT

Use Summary: The constituent unit agrees it will permit Contractor to use available classrooms, conference rooms, large meeting rooms, and other space for the sole purpose of professional meetings and conferences conducted by the Waterbury Public Schools.

For each event that is approved and booked, CT State Naugatuck Valley's internal Event Confirmation will be appended to this agreement.

All booked events shall be subject to the terms and conditions specified within this Contract.

Term: April 1-December 31, 2024.

The dates of each booked event shall be listed on the appended Event Confirmation.

Location: Constituent unit's Waterbury Campus

Reservation Number: 49556

II. USE FEE: Use Fee payment* under this Contract is to be made as follows: All fees waived.

1. **Additional Fees or Services:** This Use Fee herein is the minimum cost of the Event, based on the constituent unit's evaluation of information provided by the Contractor and does not include any additional labor or equipment. The Use Fee includes, but is not limited to, custodial, security, equipment and / or materials fees as determined by the constituent unit. The constituent unit reserves the right to add, change, alter, or delete any rule, policy or procedure pertaining to the rental of, usage of, or fees charged for the facilities and/or equipment.

    a. Any additional custodial overtime services, additional technical assistance, additional security services, or any other unforeseen and unavoidable expenses, resulting from the Event and not part of the estimated costs shall be borne by the Contractor.

    b. In addition, the constituent unit shall make every effort to provide advance notice of at least five (5) calendar days to the Contractor or its authorized representative if any special service is required to support production of the event. This will not be the case with "day-of-the-event" personnel overtime charges assessed as a result of services to support the presentation of the Contractor's event.

    c. The constituent unit shall not be responsible for providing, for use of the Contractor, any spaces or venues that are not subject to this Contract. If the Contractor should

decide not to utilize the facilities or any portion thereof, the constituent unit shall not be obligated to reduce any fees that have been charged for their use.

2. **Notices:** All notices, demands or requests provided for or permitted to be given pursuant to this Contract must be in writing. All notices, demands and requests shall be deemed to have been properly served if given by personal delivery, or if transmitted by facsimile with confirmed receipt, or if delivered to Federal Express or other reputable express carrier for next business day delivery, charges billed to or prepaid by shipper; or if deposited in the United States mail, registered or certified with return receipt requested, proper postage prepaid, addressed as follows:

If to the Constituent Unit*:	CT State Community College Naugatuck Valley 750 Chase Parkway Waterbury, CT 06708 Attention: Lisa Dresdner, Ph.D. Dr. Lisa Dresdner, CEO
If to the Contractor*:	Waterbury Public Schools 236 Grand Street Waterbury, CT 06702 Attention: Verna D. Ruffin, Ed.D. Superintendent of Schools

***Note:** Any party may change its Notice information in writing in accordance with this Section.

III. GENERAL TERMS AND CONDITIONS:

1. **Contractor Responsibilities:**

   a. The Contractor shall not include the name of the constituent unit and/or any of its institutional or athletic insignia or logos in any written materials, advertising or promotion without the prior written consent of the constituent unit other than as the location for the contracted event. The name of the constituent unit is not to be associated with any group that is not a bona-fide organization of the constituent unit.

   b. Contractor hereby warrants that it owns all rights, title and interest to, or is otherwise fully authorized to perform and display publicly, and to record, any and all parts of the event(s) covered by this Contract, including without limitation, all musical works, dramatic works, literary works, pictorial and graphic works and chorographical works. Contractor shall have the sole obligation to obtain all permits, licenses and authorizations necessary from the holder of any copyright or other proprietary right of any and all parts of the event(s) covered by this Contract, and shall immediately upon the request of the constituent unit, deliver written proof of such to the constituent unit.

   c. The constituent unit reserves all commercial broadcasting, television, recording and filming rights, if available to be exercised by the constituent unit, for its own benefit. The constituent unit will consider releasing these rights under a mutually beneficial agreement with the Contractor. Bona fide news coverage shall remain exclusive of such agreement. The Contractor shall not permit the vending or distribution of any merchandise and/or service in the facilities or on the premises of the constituent unit except where specifically agreed upon as a part of this Contract.

d. The Contractor may not assign any part or right of this Contract or sublet the constituent unit or any part thereof to any other party without the prior written consent of the constituent unit. The constituent unit will not be responsible for any agreement(s) made by the Contractor to Event participants or any other party unless such agreements are expressly made part of this Contract.

e. The Contractor agrees to furnish the constituent unit's Contact with a copy of any contract between the Contractor and other parties for review prior to final approval for the use of constituent unit facilities.

f. The Contractor shall comply with all applicable rules, policies and procedures promulgated by the constituent unit and/or the Connecticut State Colleges and Universities governing the use of the constituent unit's property and equipment. Specific system and constituent unit policies and procedures will be made available to the Contractor upon request. The Contractor shall at all times comply with and observe all federal and state laws, local laws, ordinances, and regulations which are in effect during the period of this Contract which in any manner affect its conduct or its use of the facilities. The constituent unit shall not be required to observe or comply with any rules, regulations, or policies of the Contractor that are not specifically stated and agreed to as part of this Contract.

g. In the event of weather-related or other closing announcements, please call the relevant constituent unit Campus's Weather Information Line. A list of regional campus numbers can be found at the following website: http://www.ct.edu/connscu. Information is also provided to local radio and television stations; however, the notifications are provided by the media as a courtesy and can be subject to inaccuracies. It is the responsibility of the Event coordinator to contact its attendees in the event of any cancellation. Please note that if the event is cancelled due to inclement weather, every effort will be made to reschedule your event. If that is not possible, your deposit will be refunded.

h. The Contractor shall see that all refuse and waste will be deposited in proper receptacles each day.

i. The Contractor shall utilize only the parking areas designated for all automotive parking of Event participants, parents, guests and spectators and agrees to instruct all Event participants, parents, guests and spectators to comply with this requirement.

2. **Security**

a. The Contractor agrees that it shall be responsible for the cost of any security services so provided by the constituent unit, in accordance with Section II.1 above. The official representative of the constituent unit on site during the contract period shall have full responsibility for the operation of the facility and the areas immediately adjacent thereto and shall act for and on behalf of the constituent unit in the management, supervision and control of the facilities.

b. The Contractor shall be responsible for any and all loss of, or damage or injury to, any property owned by the constituent unit resulting from the negligent and/or intentional acts of its officers, employees, agents or attendees.

c. The Contractor shall be responsible for the conduct of those in attendance at the Event and shall, at the Contractor's expense, provide for the necessary personnel, as determined by the constituent unit, to provide adequate and appropriate supervision of

these attendees in accordance with and adherence to all of constituent unit policies and procedures which include but are not limited to the use of alcoholic beverages, consumption of food and the prohibition of smoking in all constituent unit facilities.

d. Should there be a conflict during the presentation of the program; the Contractor agrees that the official representative of the constituent unit will have complete supervision, direction and operational control.

e. The Contractor shall complete a constituent unit accident report for any incident requiring administration of first aid. Said accident reports shall be provided to the constituent unit's Public Safety Division within twenty-four (24) hours of any incident.

f. The constituent unit shall revoke the privilege of any participant to use any constituent unit facility if, in the sole opinion of the constituent unit, the participant displays behaviors that are injurious or potentially injurious to themselves, others or property of the constituent unit.

g. The Contractor shall not over-subscribe the Event in such a way as to exceed the legal fire capacity, of any of the facilities. If requested, the Contractor shall provide ticket manifests to verify that no over-subscriptions have occurred.

3. **Equipment**

a. It is the responsibility of the Contractor to provide the constituent unit's Contact listed in Section II subsection 2 herein with all necessary information with regard to set-up, audio/visual, and other specific information relating to the use of the facilities 30 business days prior to the event. Failure of the Contractor to provide the necessary information will relieve the constituent unit from any obligation to provide these services in the manner desired by the Contractor.

b. Equipment provided to or rented by the Contractor as part of this Contract is for use only in the facilities herein contracted and under the supervision, and operation where appropriate, of constituent unit personnel. Under no circumstances shall any equipment be moved from the facilities and/or removed from campus without the express written approval of the constituent unit.

c. The Contractor shall see that any equipment provided by the constituent unit pursuant to this Contract shall be used appropriately and returned in good working order to its proper location following use each day.

d. The Contractor agrees that equipment not specified as part of this Contract shall not be used by the Contractor or Event participants.

e. Contractor agrees that all electrical connections must be made by constituent unit personnel and shall not install or operate any equipment, fixture or device, or operate or permit to be operated any engine, motor or other machinery, or use gas, electricity or flammable substances except with prior written approval of the constituent unit, under such conditions and restrictions as constituent unit may specify.

f. The Contractor agrees that no equipment, device or fixture may be used which, in the opinion of the constituent unit, endangers the structural integrity of constituent unit facilities.

g. No candles are allowed in the facility and the hanging of decorations with tape or nails, to any woodwork, is prohibited.

h. Any equipment or effects of the Contractor remaining on the premises for more than 48 hours after the expiration of this Contract without prior written permission of the constituent unit shall be deemed abandoned and disposed of by the constituent unit at its sole discretion.

i. The Contractor shall use only its own mobile device or pay telephones to conduct any business while using the facilities, unless there is an emergency.

IV. FOOD SERVICE / STATE SALES TAX:

1. **If catering services are available at the constituent unit and requested by Contractor**:

   a. The constituent unit presently has a contract for the provision of food service with a food service vendor, pursuant to which the food service vendor provides catering services at the constituent unit. Requests for catering services shall be made through the constituent unit 's food service vendor. Food orders must be placed a minimum of two (2) weeks prior to the Event. The Contractor shall provide an estimate of the number of expected attendees to the constituent unit's food service vendor at the time the service request is placed. The Contractor shall provide the constituent unit's food service vendor a guaranteed guest count no fewer than forty-eight (48) hours prior to the Event.

   b. If applicable, the Contractor shall pay, at a minimum, the per person cost for the number of guests designated in guaranteed guest count provided to the constituent unit's Event Management Office or the constituent unit's designated contact person, as well as the per person cost for any guests served in excess of the guaranteed count. Prices for catering services may be obtained from the constituent unit 's food service vendor. The constituent unit's food service vendor shall prepare and submit an invoice for the catering service to the Contractor, which invoice shall provide for payment by the Contractor directly to the food service vendor.

   c. In all cases, all information pertaining to changes in food menus, guaranteed guest counts or any other related food service item, must be communicated directly to the constituent unit 's food service vendor. The Contractor agrees that neither the constituent unit nor the constituent unit's food service vendor shall be responsible for changes in services required or the number of attendees for which the Contractor is charged if such changes are not communicated directly to the constituent unit 's food service vendor within the time frames specified in subsection 1.c. of this Section IV.

   d. The Contractor shall cancel catering orders, by directly notifying the constituent unit's food service vendor, a minimum of forty-eight (48) hours (excluding weekends) in advance of the Event. Should the Contractor fail to do so, it shall be responsible for the full cost of the catering service requested, which cost shall be based on the guaranteed guest count provided in accordance with subsection 1 of this Section IV. Cancellations that are necessitated by inclement weather must be made by 9:00 a.m. eastern time on the day of the Event.

2. **If catering services are not provided by or not available at the constituent unit**:

   a. The Contractor may engage a properly licensed third-party food service vendor ("third-party vendor") to provide catering services in relation to the Event. Contractor shall provide a description of the food and beverages to be served and shall provide the

caterer's name and contact information to the constituent unit. Contractor shall be responsible for removal of all waste from the constituent unit's facilities at the conclusion of the Event. If the rental of additional dumpsters is necessary for large events, a fee may be charged for each required dumpster. The constituent unit reserves the right to approve any third-party vendor providing catering services at the constituent unit's facilities. Approval of such third-party vendor must be given by the constituent unit in advance of the Term specified in Section I, above.

3. **State Sales Tax**:

   a. Under the Connecticut General Statutes, all sales of food and/or beverages for events held on campus are subject to the Connecticut state sales tax in effect at the time the Event occurs, unless the Contractor provides one of the following approved certifications for tax exemption for the program:

      i. The organization is not reimbursed, in whole or in part, by donation or otherwise, for its payment for the meal by those consuming the meals, and the Contractor has provided an approved CERT-112 or CERT-123 from the Connecticut State Department of Revenue Services listing the Institution as the retailer. Such exemptions take a minimum of six (6) weeks to process through the Connecticut State Department of Revenue Services. Request forms are available from the Connecticut State Department of Revenue Services either at their office or website, http://www.ct.gov/drs.

      ii. The Contractor is a nonprofit organization and is collecting a donation or leveling a charge for admission as a fundraiser and has supplied a completed CERT-119 or CERT-134 indicating that the Event is one (1) of the five (5) fundraisers or social events covered by the exemption the organization has for that calendar year, under the Special Notice 98(11) Exemption from the Connecticut State Department of Revenue Services, and listing the Institution as the retailer. Under no circumstances shall more than five (5) CERT-119 or CERT-134 forms be accepted from any one contractor in a given calendar year.

   b. In all cases, the Contractor shall submit the appropriate documentation to the constituent unit 's Event Manager when the Contract is executed or, in cases where a CERT-112 or CERT-123 is being requested, no later than two (2) weeks prior to the Event. If a CERT-112 or CERT-123 is to be utilized, the Contractor shall submit the request to the Connecticut State Department of Revenue Services no later than eight (8) weeks prior to the Event.

   c. In all cases where the appropriate documentation for tax exemption is not provided within the specified time, the Contractor will be charged all appropriate Connecticut state sales tax.

V. SPECIFIC TERMS AND CONDITIONS APPLICABLE TO ANY PROGRAM INVOLVING MINORS:

1. Connecticut General Statutes §§ 17a-101 through 17a-103a, inclusive, currently set forth Connecticut's mandatory reporting laws concerning known or suspected abuse or neglect of a minor.

2. The Contractor will ensure that all of its employees or volunteers who will supervise or otherwise come into contact with minor attendees of any of the Contractor's programs

using the constituent unit facilities are fully aware of and have been sufficiently trained to comply with, their reporting obligations pursuant to §§ 17a-101 through 17a-103a, as may be amended from time to time.

3. The Contractor's failure, including the failure of any of the Contractor's employees or volunteers, to comply with this Section may result in immediate termination of this Contract. In addition, the Contractor may be disqualified from entering into further contracts with the constituent unit.

VI. INSURANCE REQUIREMENTS:

1. **Commercial General Liability**: Contractor shall provide the constituent unit a certificate of insurance, from its insurance provider, thirty (30) days prior to the Event, which states that the Contractor is insured for the period of time covered by this Contract with minimum Commercial General liability coverage established at: $1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage coverage. Coverage shall include Premises and Operations, Independent Contractors, Products and Completed Operations, Fire Legal Liability, Contractual liability and Broad Form Property Damage coverage. If a general aggregate is used, the general aggregate limit shall apply separately to the project or the general aggregate limit shall be twice the occurrence limit. The constituent unit and its Board of Regents and their agents, officers and employees shall be named as Additional Insured. Said certificate of insurance shall indicate the specific dates covered by this Contract and reference the Event set forth in Section I of this Contract. The coverage shall contain no special limitations on the scope of protection afforded to the State.

    a. If alcoholic beverages are served, but not sold, then host liquor liability coverage should be included within the Commercial General Liability coverage. If alcoholic beverages are sold, then a separate Liquor Liability policy ($1,000,000 limit) is required.

    b. If a caterer is providing alcoholic beverages, then the caterer is required to have insurance coverage in the amount of $1,000,000 A Liquor Liability policy is required of the entity that is either serving or providing the alcohol.

2. **Automobile Liability**: $1,000,000 combined single limit per accident for bodily injury. Coverage extends to owned, hired and non-owned automobiles. If the Contractor does not own a vehicle used in the execution of the Contract, then only hired and non-owned coverage is required. *[If a vehicle is not used in the execution of the Contract then automobile coverage is not required.]*

3. **Workers' Compensation and Employers Liability**: *[If any employees of Contractor are involved in the use of facilities]* Statutory coverage in compliance with the Compensation laws of the State of Connecticut. Coverage shall include Employer's Liability with minimum limits of $100,000 each accident, $500,000 Policy Disease Limit, $100,000 each employee.

4. **Additional Provisions**:

    a. The Contractor shall assume any and all deductibles in the described insurance policies.

    b. The Contractor's insurer shall have no right of recovery or subrogation against the State and the described insurance shall be primary coverage.

c. Any failure to comply with the reporting provisions of the policy shall not affect coverage provided to the State.

d. Each required insurance policy shall not be suspended, voided, cancelled or reduced except after 30 days prior written notice by certified mail return receipt, has been given to the constituent unit.

e. All coverage is to be written on an "Occurrence" policy form.

f. The insurance companies providing coverage must have an A-, VII or better rating in the current edition of Best's Key Rating Guide and be licensed to do business in the State of Connecticut.

g. Contractor shall provide the constituent unit with a certificate of insurance thirty (30) days prior to the event, which states that the Contractor is insured for the period of time covered by this Contract and reference the event and event dates set forth in Section I of this Contract.

h. If Contractor claims to be a nonprofit agency, it must provide a copy of the appropriate official state or federal certification of that status, thirty (30) days prior to the Event. Failure to provide such certification will result in appropriate changes in Event pricing or cancellation of the reservation. Any documentation and/or certification provided for substantiation that an organization is a nonprofit agency under Connecticut state law shall only constitute verification of eligibility for nonprofit facility use rates, and shall not cover any exemption for Connecticut state sales tax for food purchases related to the Event.

VII. GENERAL STATE CONTRACT PROVISIONS:

1. **Statutory Authority.** Connecticut General Statutes §§ 10a-6, 10a-1b, 4a-52a, and/or 10a-151b provide the constituent unit with authority to enter into contracts in the pursuit of its mission.

2. **Forum and Choice of Law.** The parties deem the Contract to have been made in the City of Hartford, State of Connecticut. Both parties agree that it is fair and reasonable for the validity and construction of the contract to be, and it shall be, governed by the laws and court decisions of the State of Connecticut, without giving effect to its principles of conflicts of laws. To the extent that any immunities provided by Federal law or the laws of the State of Connecticut do not bar an action against the State, and to the extent that these courts are courts of competent jurisdiction, for the purpose of venue, the complaint shall be made returnable to the Judicial District of Hartford only or shall be brought in the United States District Court for the District of Connecticut only, and shall not be transferred to any other court, provided, however, that nothing here constitutes a waiver or compromise of the sovereign immunity of the State of Connecticut. The Contractor waives any objection which it may now have or will have to the laying of venue of any claims in any forum and further irrevocably submits to such jurisdiction in any suit, action or proceeding.

3. **Indemnification.** The Contractor hereby indemnifies and shall defend and hold harmless the State, its officers and its employees from and against any and all suits, actions, legal or administrative proceedings, claims, demands, liabilities, monetary loss, interest, attorneys' fees, costs and expenses of whatsoever kind or nature arising out of the performance of this Contract, including those arising out of injury to or death of Contractor's employees or

subcontractors, whether arising before, during or after completion of the services hereunder and in any manner directly or indirectly caused, occasioned or contributed to in whole or in part, by reason of any intentional, reckless or negligent act or omission of the Contractor or its employees, agents or subcontractors.

4. **Sovereign Immunity.** The parties acknowledge and agree that nothing in this Contract shall be construed as a modification, compromise or waiver by the State of any rights or defenses of any immunities provided by Federal law or the laws of the State of Connecticut to the State or any of its officers and employees, which they may have had, now have or will have with respect to all matters arising out of this Contract. To the extent that this section conflicts with any other section, this section shall govern.

5. **Claims Against the State.** The Contractor agrees that the sole and exclusive means for the presentation of any claim against the State of Connecticut or the constituent unit arising from this Contract shall be in accordance with Chapter 53 of the Connecticut General Statutes (Claims Against the State) and the Contractor further agrees not to initiate any legal proceedings in any state or federal court in addition to, or in lieu of, said Chapter 53 proceedings.

6. **Nondiscrimination.** Each party agrees, as required by sections 4a-60 and 4a-60a of the Connecticut General Statutes, not to discriminate against any person on the basis of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, sexual orientation, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such party that such disability prevents performance of the work involved. Each party agrees to comply with all applicable federal and state of Connecticut nondiscrimination and affirmative action laws, including, but not limited to, sections 4a-60 and 4a-60a of the Connecticut General Statutes.

7. **Executive Orders and Other Enactments.**

   a. All references in this Contract to any Federal, State, or local law, statute, public or special act, executive order, ordinance, regulation or code (collectively, "Enactments") shall mean Enactments that apply to the Contract at any time during its term, or that may be made applicable to the Contract during its term. This Contract shall always be read and interpreted in accordance with the latest applicable wording and requirements of the Enactments. Unless otherwise provided by Enactments, the Contractor is not relieved of its obligation to perform under this Contract if it chooses to contest the applicability of the Enactments or the Client Agency's authority to require compliance with the Enactments.

   b. This Contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of this Contract as if they had been fully set forth in it.

   c. This Contract may be subject to (1) Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services; and (2) Executive Order No. 61 of Governor Dannel P. Malloy promulgated December 13, 2017 concerning the Policy for the Management of State Information Technology Projects, as issued by the Office of Policy and Management, Policy ID IT-SDLC-17-04. If

any of the Executive Orders referenced in this subsection is applicable, it is deemed to be incorporated into and made a part of this Contract as if fully set forth in it.

8. **Termination.**

   a. **Termination for Cause.** In the event that the Contractor shall fail to perform, keep or observe any of these terms, covenants or conditions of this Contract, the constituent unit may terminate this Contract for cause by providing a written Notice to Cure to the Contractor citing the instances of noncompliance with the contract. The Contractor will have ten (10) days to reply to the Notice to Cure and indicate why the contract should not be terminated and recommend remedies to be taken.

      i. If the Contractor and the constituent unit reach an agreed upon solution, the Contractor will then have thirty (30) days after such agreement is reached to cure the noncompliance cited in the Notice to Cure.

      ii. If a mutually agreed upon solution cannot be reached within ten (10) days after receipt of Notice to Cure by Contractor, the constituent unit reserves the right to terminate the Contract at that time by written notice of such termination.

      iii. If the mutually agreed upon solution is not implemented within thirty (30) days from the date of agreement, the constituent unit reserves the right to terminate the Contract at that time by written notice of such termination.

      iv. The constituent unit will be obligated only for those goods or Services rendered and accepted prior to the date of Notice of Termination.

      v. Remedies for Default: If the solution mutually agreed upon pursuant to subsection (a) of this Section is not implemented within the thirty (30) days provided in said subsection, the Contractor shall forfeit all rights under this Contract, to any monies paid to the constituent unit, in the form of deposits, advance payments, etc., and be further responsible for any additional monies owed which the constituent unit deems necessary to cover expenses incurred due to the cancellation of the Contractor's event.

   b. **Termination for Convenience.**

      i. The constituent unit may terminate this Contract in whole or in part whenever, for any reason, the constituent unit shall determine that such termination is in the best interest of the constituent unit and/or the State of Connecticut.

      ii. If this Contract is terminated by the constituent unit pursuant to this section, the constituent unit will provide the Contractor fourteen (14) days written notice of such intention. In the event of such termination, the Contract Administrator and/or designee will notify the Contractor by certified mail, return receipt requested. Termination will be effective as of the close of business on the date specified in the notice.

9. **Force Majeure.** If the performance of obligations under this Contract are rendered impossible or hazardous or is otherwise prevented or impaired due to illness, accident, Act(s) of God, riots, strikes, labor difficulties, epidemics, earthquakes, and/or any other cause or event, similar or dissimilar, beyond the control of the Contractor, then each party's obligations to the other under this Contract shall be excused and neither party shall have any liability to the other under or in connection with this Contract.

10. **Campaign Contribution Restrictions.** For all State contracts, defined in section 9-612 of the Connecticut General Statutes as having a value in a calendar year of $50,000 or more, or a combination or series of such agreements or contracts having a value of $100,000 or more, the authorized signatory to this Contract represents that they have received the State Elections Enforcement Commission's notice advising state contractors of state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice, as set forth in "SEEC Form 10:" Notice to Executive Branch State Contractors and Prospective State Contractors of Campaign Contribution and Solicitation Limitations

11. **Entire Agreement and Amendment.** This Contract is the entire agreement between the Contractor and the constituent unit and supersedes and rescinds all prior agreements relating to the subject matter hereof. This Contract may be amended only in writing signed by both the Contractor and the constituent unit and approved by the Connecticut Attorney General, if applicable. The Contractor indicates it has read and freely signed this Contract, which shall take effect as a sealed instrument. The Contractor further certifies that the terms of this Contract are legally binding and its duly authorized representative has signed this agreement after having carefully read and understood the same.

VIII. ACCEPTANCE OF AGREEMENT

If a signed original of this Contract has not been received by the constituent unit 2 weeks prior to the Event, the constituent unit shall have the right to contract with other parties for the use of the space without notice to the Contractor.

IN WITNESS WHEREOF, the parties have executed this Contract by their duly authorized representatives with full knowledge of and agreement with its terms and conditions.

CONTRACTOR **WATERBURY PUBLIC SCHOOLS**		**CONSTITUENT UNIT** **CONNECTICUT STATE COMMUNITY COLLEGE NAUGATUCK VALLEY**	
By:		**By:**	
Print Name:	Paul K. Pernerewski Jr.	**Print Name:**	Lisa Dresdner, Ph.D.
Title:	Mayor	**Title:**	Chief Executive Officer
Date:		**Date:**	

By the Connecticut Attorney General

This contract template, having been reviewed and approved as to form by the Connecticut Attorney General, is exempt from review pursuant to a Memorandum of Agreement between the Connecticut State Colleges and Universities, Board of Regents for Higher Education and the Connecticut Attorney General dated March 25, 2019. Therefore, no signature is required below.

NV Events Planning Office
750 Chase Parkway
Waterbury CT 06708
203-596-2177 / 203-575-8085

Confirmation

Group

DaSilva, Patricia
NV-Administration

Reservation: 51212

Event Name:	Waterbury Public Schools - Superintendent Student Advisory Council
Status:	Web Confirmed
Phone:	203-575-8089
Email Address:	PDaSilva@nvcc.commnet.edu

Bookings / Details	Quantity	Price	Amount

Your event has been approved.

Tuesday, April 9, 2024

9:00 AM - 12:00 PM Waterbury Public Schools - Superintendent Student Advisory Council (Web Confirmed)
NV-FOU F101

Reserved: 8:00 AM - 1:00 PM

Academic Capacity for 85

NV Setup Notes:

Expected attendance: 85 (school van/bus delivery of most guests; parking required for 3-6 vehicles)

Contact: Tanya Bombero, Waterbury Public Schools, 236 Grand St., Waterbury, CT 06702; 203-574-8000, ext. 11201; tbombero@waterbury.k12.ct.us

One table with 2 chairs in front of lectern, for host and guest speaker.
One registration/check-in table with 2 chairs
15 tables, 6 chairs at each
2 tables in rear for food and beverages.

2 handheld mics
2 guest wifi accounts

Food and beverage delivery expected; details TBD (as of 2/29/2024)

Your event has been approved.

SECOR, CASSIDY & MCPARTLAND, P.C.

ATTORNEYS AT LAW

GAIL E. MCTAGGART
THOMAS G. PARISOT
PATRICK W. FINN
DAVID J. BOZZUTO
JAMES R. STRUB
CONNOR P. MCNAMARA
LINDA N. MAYO
WILLIAM F. BREG
ANNE MURDICA*

Tax Counsel
JOHN J. PALMERI, CPA, JD,LL.M.†*
† Taxation

41 Church Street
P.O. Box 2818
Waterbury, CT 06723-2818
Phone (203) 757-9261
Fax (203) 756-5762
www.ctlawyers.com

Southbury Office:
555 Heritage Road, Suite 105
P.O. Box 304
Southbury, CT 06488
(203) 264-8223
Fax (203) 264-6730

*Also Admitted in New York

March 12, 2024

Angela Juliani, Esq.
Corporation Counsel
City Hall Building
235 Grand Street, 3rd floor
Waterbury, CT 06702

RE: NVCC Room Usage for April 9, 2024

Dear Attorney Juliani:

I have reviewed the NVCC Facility Use Agreement that it requires the City to execute for room usage on campus for April 9, 2024.

It is my opinion that there is no legal impediment that would prohibit Mayor Pernerewski from executing this document.

If you have any questions please do not hesitate to call.

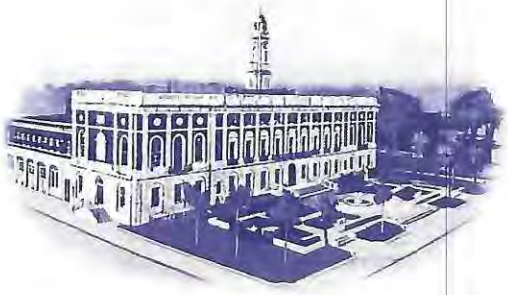
Very Truly Yours,

Thomas G. Parisot

TGP/lsw

Cc: Jerry Gay
Tanya Bombero

KEVIN McCAFFERY
DIRECTOR OF PURCHASING



OFFICE OF THE DIRECTOR OF PURCHASING
THE CITY OF WATERBURY
CONNECTICUT

To: Dr. Verna D. Ruffin, Superintendent of Schools

From: Kevin McCaffery, Director of Purchasing

Subject: Sole Source for Use of Space at Naugatuck Valley Community College to Conduct Superintendent's Student Advisory Council Meeting

Date: March 1, 2024

After review of your memo dated February 29, 2024 concerning the above, it is my opinion that this is a sole source procurement per §38.026 SOLE SOURCE PROCUREMENT.

235 GRAND STREET • WATERBURY, CONNECTICUT 06702 • PHONE (203) 574-6749 • FAX (203) 597-3437

WATERBURY
PUBLIC SCHOOLS

Dr. Verna D. Ruffin
Superintendent of Schools
(203) 574-8000
vruffin@waterbury.k12.ct.us

TO: Kevin McCaffery, Director of Purchasing

FROM: Dr. Verna D. Ruffin, Superintendent of Schools

DATE: February 29, 2024

SUBJECT: Sole Source Procurement Review of Naugatuck Valley Community College

I would like to utilize Naugatuck Valley Community College's Founders Hall Community Room on April 9, 2024 to host an in person meeting with my Superintendent's Student Advisory Council consisting of 84 students.

NVCC has the facility space to accommodate a larger group of students allowing them to participate in the meeting's activities. This location will be free from disturbances and disruptions from school building students and staff following a regular class day schedule. NVCC will provide the facility space free of charge and is within Waterbury for ease of access.

I respectfully request your approval for a sole source to move forward with the College Facility Request/Reservation Agreement. Please feel free to contact me with any questions.

Thank you for your consideration.

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE OF THE WHOLE

Item #13.3

February 16, 2023

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee of the Whole moves that the Waterbury Board of Education approve the job specifications for, and new position of, Director of Multilingual Education.

Waterbury Public Schools

JOB CLASSIFICATION DESCRIPTION

JOB CLASSIFICATION TITLE:
Director of Multilingual Education
DEPARTMENT: Academic Office

REPORTS TO: Chief Academic Officer
SALARY RANGE: $150,000 - $175,000
FLSA DESIGNATION: Exempt

PART I - SUMMARY OF CLASSIFICATION

This class is accountable to oversee and assist with programs designed to lead the development and implementation of all Waterbury Public Schools (WPS) initiatives related to multilingual, dual language, and world languages education. This position provides leadership to ensure that all students served by WPS have access to and excel in best-in-class world language programs designed to elevate high levels of proficiency in multiple languages and support and sustain multilingualism. This position will lead efforts in implementing the multi-year strategic planning for WPS multilingual services. The Director of Multilingual Education will provide strategic leadership towards ensuring that all students across the district, especially English learners, have access to and excel in best-in-class multilingual and dual language immersion initiatives, as well as world language education designed to elevate and cultivate students' cultures, languages, and identities, and accelerate student achievement.

The Director of Multilingual Education will lead the development and deployment of high-quality, research-based professional learning supports and work to implement innovative school models, programs, and master schedules in collaboration with the WPS Office of Academic Affairs and building level administrators to support all students towards grade level advancement, college preparation and/or career readiness. The position will work closely with key internal and external stakeholders in the development and implementation of highly effective programs and initiatives. The Director of Multilingual Education will collaborate with internal and external stakeholders to implement and scale programs and recommendations for educating and supporting multilingual students and their families and for recruiting, growing, and supporting teacher pipelines. The Director will ensure State of Connecticut compliance and will operationalize tools and techniques to establish high-quality instruction, assessment, monitoring, and service.

PART II - MINIMUM KNOWLEDGE, SKILLS, AND ABILITIES

A. EDUCATION AND EXPERIENCE:

General Experience:

- Master's or 6th Year degree in education or related field required
- Five (5) years of experience managing and leading Language Development and/or related programs or administering multilingual development-related programs in preschool through grade 12 settings required
- Completion of seven (7) years of successful classroom teaching associated with supporting multilingual learners or world languages required
- Experience in an urban school district and/or a multicultural environment is preferred

B. CREDENTIALS, LICENSURES, CERTIFICATIONS AND OTHER

- Connecticut State Department of Education certification(s), including but not limited, to subject areas in TESOL (111), Bilingual (902, 009) or varied world languages required
- Connecticut State Department of Education certification as an Intermediate Administrator/Supervisor (092) required
- Ability to communicate verbally and in writing in multiple languages
- Incumbents in this class may be required to possess a current Motor Vehicle Class D Operator's License

C. KNOWLEDGE, SKILLS AND ABILITIES:

- Knowledge of multilingual models and ability to work collaborative with others in creating and implementing such school models;
- Accepts accountability for developing multilingual school models and holds self and others accountable for student success;
- Ability to plan, organize and administer district-level professional development programs
- Considerable knowledge of how to use student profile data, district-wide data and State data to drive multilingual services;
- Knowledge of effective supervision;
- Knowledge of evidence-based research and best practices for public schools as it relates to multilingual student services and world language programs;
- Knowledge of relevant Federal and State statutes, guidelines and regulations;
- Knowledge of public school district and school safety procedures;
- Knowledge of student data privacy act;

- Knowledge of Connecticut Code of Professional Responsibility for Administrators and District policies and procedures governing teacher conduct;
- Knowledge of the principles and practices of education for students with multilingual needs and world language programs
- Knowledge of the school improvement or school program and quality review processes;
- Knowledge of the social, emotional, intellectual, and physical needs of the Pre-K, elementary, middle and high school age students;
- Excellent verbal and written communication skills;
- Excellent technological skills;
- Considerable problem-solving skills;
- Knowledge of crisis management, handling emergencies and de-escalation techniques skills;
- Ability to apply leadership skills within a shared decision-making model;
- Ability to demonstrate high moral and ethical standards;
- Ability to develop and foster a professional learning community that supports student success;
- Ability to establish and maintain effective working relationships with students, staff and the community;
- Ability to interact and present successfully with staff, parents, supervisors, executive leadership, district teachers, board members, and community;
- Ability to multitask complex issues with the ability to remain flexible and develop alternative strategies to achieve established goals;
- Ability to work well in a community with high expectations for its students and schools;
- Ability to work with individuals from diverse backgrounds.

PART III - POSITION SUPERVISES:

- Supervises assigned certified and non-certified staff.

PART IV - ESSENTIAL FUNCTIONS: The following identifies the primary and essential functions of the position and is not intended to be an exhaustive listing of all duties.

- Direct oversight and supervisor of all multilingual and world language education
- Develops, prepares, implements, and enforces program plans designed for multilingual and world languages students and district services
- Establishes policies and procedures governing multilingual and world languages education compliance with federal, state, and local laws
- Develops and implements professional learning for administrators and teachers of the district to broaden knowledge of multilingual services and student needs
- Works collaboratively with building administrators in implementing multilingual programs and world language courses
- Leads district collaboration with families of students who qualify for multilingual services and values the rich diversity of Waterbury, Connecticut
- Completes reports regarding multilingual programs and in compliance with governing laws and regulations; submitting reports to federal and state authorities on student attendance and services
- Leads the implementation of the vision, mission, and short- and long-term plans related to scaling high-quality multilingual education programs and world languages across the district in alignment with the WPS strategic plan
- Establishes programs, initiatives, and policies that scale asset-based approaches for educating multilingual learners and leads the development and implementation of WPS efforts and programs to accelerate the education of multilingual learners across the district
- Provides leadership, guidance, and technical assistance to building level leaders and early childhood education providers regarding the design and development of curriculum, data analysis, and the implementation of instructional programs, including best practices in multilingual services, content areas, and structured literacy practices to accelerate reading outcomes for multilingual learners.
- Ensures equity and access for multilingual learners and students taking world language courses by supporting the development of a comprehensive district-wide strategy to promote perspectives for multilingual learners and language access
- Works to continually enhance the district's multilingual and world languages programs in collaboration with internal and external stakeholders
- Develops and monitors structures to ensure that all students have access to and excel in best-in-class programs designed to elevate high levels of proficiency in multiple languages and support and sustain multilingualism
- Provides content expertise in the development of district-wide rubrics for high-quality, content-rich and culturally responsive instructional materials in multilingual and world languages education in collaboration with district and building level leaders
- Engages with the Chief Academic Office and Human Capital Office to align and deploy best in class professional learning for multilingual and world languages teachers
- Develops a structure for building leadership capacity at the district and building levels by effectively applying findings from high-quality research and best practices to guide and inform the implementation of multilingual education and dual language

immersion programs and initiatives and accelerate student achievement
- Effectively collects and presents data internally and externally to assess program implementation and refinement; benchmark programs and initiatives against best-in-class national and state programs; and ensure alignment with federal and state laws and regulations
- Leads multilingual and dual language education program and initiative budgets based on high-quality needs assessments
- Creates a responsible and sustainable budget, implement the budget to fidelity and monitor spending in alignment with the budget
- Apply for and effectively utilize federal and state grants associated with multilingual and world languages education
- Knowledge of standards, trends, regulations, policies, and effective instruction and assessment in multilingual and world languages education
- Lead the district work on expanding student access and achievement as it relates to the Seal of Biliteracy
- Knowledge of biliteracy programs that immerse students in multiple languages for the purposes of addressing college and career readiness pathways and standards and/or state and national standards, trends, regulations, policies, and issues affecting multilingual education
- Skill managing, leading, implementing, monitoring, and evaluating education programs
- Skill in providing high-quality and service-level-based support and technical assistance for education programs
- Skill collaborating with diverse communities and organizations for the purpose of implementing programs and strategies
- Skill in developing and delivering research-based and best-in-class professional development programs
- Ability to organize and manage multiple tasks and deadlines
- Ability to interpret and apply learning standards, policies, and regulations
- Ability to work as a team member and establish and maintain effective working relationships
- Ability to communicate effectively, both orally and in writing
- Performs other duties as assigned

PART V - WORKING CONDITIONS, PHYSICAL AND MENTAL REQUIREMENTS: Employees appointed to positions in this class must have adequate physical strength, stamina, physical agility and visual and auditory acuity and must maintain such physical fitness as to be able to perform the duties of the class. A physical examination may be required.

Frequency: Place an "X" in each box that is appropriate to your job.

NEVER (N)	**OCCASIONALLY (O) FREQUENTLY (F)**				**CONSTANTLY (C)**			
0 % of Shift	1-33% of Shift 34-66% of Shift				67-100% of Shift			
Working Conditions	**N**	**O**	**F**	**C Working Conditions**	**N**	**O**	**F**	**C**
Physical Demands				Depth Perception		X		
Standing		X		Color Distinction		X		
Walking		X		Peripheral Vision		X		
Sitting			X	Driving		X		
Lifting		X		**Physical Strength:**				
Carrying		X		Little Physical Effort (-10 lbs.)		X		
Pushing		X		Light Work (-20 lbs.)		X		
Pulling		X		Medium Work (20-50 lbs.)		X		
Climbing		X		Heavy Work (50-100 lbs.)	X			
Balancing		X		Very Heavy Work (100+ lbs.)	X			
Stooping		X		**Environmental Conditions**				

Kneeling		X		Cold (50 degrees F or less)	X			
Crouching		X		Heat (90 degrees F or more)	X			
Crawling Reaching Handling Grasping		X X X X		Temperature Changes Wetness Humidity Extreme Noise or Vibration	X X X	X		
Twisting		X		Exposure to Chemicals	X			

Feeling			X	Exposure to Gases and Fumes	X			
Talking			X	Exposure to Unpleasant Odors	X			
Hearing				X Exposure to bodily fluids	X			
Repetitive Motion			X	Exposure to dampness	X			
Hand/Eye/Foot Coordination			X	Confinement to Small or Restricting Area	X			
Visual Acuity/Near			X	Mechanical Hazards	X			
Visual Acuity/Far			X	Physical danger or abuse		X		

The above statements are intended to describe the general nature and level of work being performed by the employee assigned to this position. They are not to be construed as an exhaustive list of all job responsibilities and duties performed by personnel so classified.

Waterbury Public Schools is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the District will provide reasonable accommodations to qualified individuals with disabilities and encourage both prospective and current employees to discuss potential accommodations with the District when necessary.

Prepared on:
February 2024

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE OF THE WHOLE

Item #13.4

February 16, 2023

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee of the Whole moves that the Waterbury Board of Education approve a Worksite Agreement with Northwest Regional Workforce Investment Board (NRWIB), at no cost, to provide employment, training and education services to eligible participants in the Internship Program.

Memorandum

To: Board of Education
From: Will Zhuta, Director of Technology, Department of Education
Date: March 19, 2024
Re: Internship agreement between Waterbury Public Schools and Northwest Regional Workforce Investment Board (NRWIB)

Waterbury Public Schools is eager to forge a transformative partnership with the Northwest Regional Workforce Investment Board, offering our youth a unique opportunity to gain invaluable work experience in the dynamic IT field. This collaboration holds the potential to foster skill development and career exploration and bridge the gap between education and employment, thereby empowering our youth and enriching our community.

Objectives:

The partnership agreement between Waterbury Public Schools and the Northwest Regional Workforce Investment Board (NRWIB) aims to achieve several objectives. It seeks to provide the intern with work experience in IT, allowing them to apply their knowledge and skills in a real-world professional environment. It enhances the youth's career awareness and decision-making by immersing them in a professional IT setting, providing valuable insights into the industry.

Expected Benefits:

Through the collaboration between Waterbury Public Schools and NRWIB, our interns will have the chance to develop practical skills and gain hands-on experience in the IT field. This direct exposure to the industry will significantly enhance their employability and equip them with the necessary tools for future career opportunities, instilling confidence in the success of this proposal.

Funding:

The Northwest Regional Workforce Investment Board (NRWIB) has committed to funding the interns for up to 400 hours. This financial support demonstrates NRWIB's dedication to investing in developing youth talent in the IT field. Further, it strengthens the partnership between NRWIB and Waterbury Public Schools in achieving the stated objectives.

NORTHWEST REGIONAL WORKFORCE INVESTMENT BOARD

Worksite Agreement PY 2024

This agreement is made between the City of Waterbury (the "City," or the "Worksite Agency") the Northwest Regional Workforce Investment Board ("NRWIB") to provide employment, training and educational services to eligible participants ("Program Participants") in the Internship Program funded under the State of Connecticut, Adult and Disabled Services.

SECTION I – CONDITIONS

1. The total hours of participation in the program by the Participant shall not exceed 400 hours for the entire term of the agreement and shall not be more than 30 hours per week.

2. The term of this agreement shall not exceed 12 months and shall terminate upon reaching 400 program hours.

3. Participants may not be used to free regular employees to perform other tasks and duties.

4. NRWIB and the City acknowledge and agree that the Program Participant(s) will **not** be considered employees or agents of the City, and that the relationship between the City and the Program Participant, NRWIB and the City is that of a contracted affiliation to provide internship opportunities as part of a NRWIB's "Subsidized Work Experience" program. The Program Participant shall not be entitled to the usual characteristics of employment such as income tax withholding, F.I.C.A. deductions, pension or retirement privileges, Workers compensation coverage, health benefits, from the City.

5. NRWIB's staff will have access to worksite records pertaining to this agreement; this will include payroll records and other related documents. The worksites will be open to NRWIB staff for program monitoring upon notification to the Worksite Agency.

6. Where a collective bargaining agreement is in existence, the union or bargaining agency must concur with the content of this agreement, attached hereto as Schedule A.

7. All worksites must abide by any applicable Sate or federal Occupational Safety and Health Act (OSHA) standards.

8. Participants shall be paid no less than the Connecticut minimum wage.

9. This Agreement may be terminated by either party by providing sixty (60) days' notice.

SECTION II – RESPONSIBILITES

A. The Worksite Agency will:

1. Maintain time and attendance records for each participant. Participants shall sign in when reporting to work and sign out at the completion of their scheduled hours. The participant and the supervisor will sign time and attendance records at the end of the week.

2. Comply with established payroll procedures and ensure that the participant(s) is paid only for actual time worked.

3. Provide adequate supervision, direction and assist in participant reviews and evaluations.

4. Adhere to the training outlines in section III as submitted.

5. Report accidents to the NRWIB Office within 24 hours of occurrence.

6. Notify the NRWIB Office regarding any problem or concern within 24 hours after being identified.

7. Comply with any and all provisions of Civil Rights Act of 1964 and the Unfair Employment Practice Act, Public Law 31-126.

8. Maintain evaluations on work performance. Other program reports will be completed as requested.

9. Refer participants to NRWIB staff as appropriate for counseling.

10. Immediately notify the NRWIB Office if the number of participants or activities included in this worksite agreement change at any time during the program.

B. The NRWIB will:

1. Provide payment to all participants.

2. Maintain earnings, social security and tax records.

3. Maintain workman's compensation coverage on all participants during the entire term of this agreement. NRWIB shall provide the insurance coverage as set for this in the Certificate of Insurance attached hereto as Schedule B for the entire term of this agreement and shall name the "City of Waterbury and the Board of Education arrested as additional insured on all lines of coverage on a primary and non-contributory bases on all polices accept Workers Compensation. All policies shall include a waiver of subrogation".

4. Provide Counseling services, educational classes and labor market orientation as needed.

5. Train the worksite supervisors; assure his / her attendance at the supervisor's orientation classes to be conducted by the Office prior to the start of the program, provide the supervisor with appropriate written materials to include a copy of this worksite agreement, the orientation handbook and other pertinent documents.

6. Confidentiality- NRWIB, its employees, agents and Participant shall strictly adhere to all State and Federal Statutes, rules, policy, regulations, codes of participant protection and confidentiality, administrative directives of the State of Connecticut Board of Education, Connecticut Department of Education and the Waterbury Board of Education regarding confidentiality of student records, files, PPTs, IEPs, etc. NRWIB shall further ensure that its employees, agents, or anyone performing work on their behalf under the terms of this Agreement shall strictly adhere to all State and Federal Statutes, rules, policy, regulations, codes of participant protection and confidentiality, administrative directives of the State of Connecticut Board of Education and those of the Waterbury Board of Education regarding confidentiality of student records.

7. Criminal Background Check and DCF Registry Check- NRWIB shall ensure, and represents to the City, that each and every Program Participant or any person affiliated with the Program who will have direct contact with a student pursuant to this Agreement has stated, in writing, whether such person has ever been convicted of a crime or whether criminal charges were ever pending against such person. NRWIB shall further ensure, and represents to the City that any Program Participant who will have direct contact with a student has submitted to a records check of the Department of Children and Families child abuse and neglect registry established pursuant to Conn. Gen. Stat. §17a-101k, as well as state and national criminal history records checks conducted in accordance with Conn. Gen. Stat. §29-17a, the federal National Child Protection Act of 1993, and the federal Volunteers for Children Act of 1998. The University shall not permit any Student Teacher with a disqualifying criminal history to have direct contact with a student.

8. NRWIB shall advise each proposed Program Participant that they shall be required to submit to a State and national criminal history records check, Department of Children and Families registry check and NRWIB shall ensure that they have completed the requires checks and shall provide a copy of the records check to the City prior to the commencement of this agreement. NRWIB shall be response for the cost of the records check.

9. Indemnification- NRWIB agrees to indemnify and hold harmless the City and the Board of Education, its officers, directors, employees and agents from and against liabilities, damages, costs and costs of defense arising out of the death or bodily injury to any person or the destruction or damage to any property arising out of the performance of this agreement or the negligence of the Program Participants' obligations under this Agreement.

C. **City of Waterbury's Ethics Code Ordinance.**

NRWIB hereby acknowledges it is responsible for familiarizing itself with and adhering to Chapter 39 of the City's Ordinance regarding, Ethics and Conflicts of Interest. The text of Chapters 38 and 39 of said Code may be obtained from the Office of the City Clerk of the City and on the internet at the City Clerk's web site: https://www.waterburyct.org/services/city-clerk/code-of-ordinances [click link titled "Code of Ordinances (*Rev. 12/31/19)*". For Chapter 39, click on "TITLE III: ADMINISTRATION", then click on "CHAPTER 39: ETHICS AND CONFLICTS OF INTEREST"].

i. **Prohibition Against Gratuities and Kickbacks (§39.042 of City's Code of Ordinances)**

ii. No person shall offer, give, or agree to give any current or former public official, employee or member of a board or commission, or for such current or former public official, employee or member of a board or commission to solicit, demand, accept or agree to accept from another person a gratuity or an offer of employment in connection with any: decision; approval; disapproval; recommendation; preparation of any part of a program requirement or a requisition; influencing the content of any specification or procurement standard; or rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy, or other particular matter pertaining to any program requirement or a contract or purchase order, or to any solicitation or proposal therefore.

iii. No person shall make any payment, gratuity, or offer of employment as an inducement for the award of a subcontract or order, by or on behalf of a subcontractor, the prime contractor or higher tier subcontractor or any person associated therewith, under contract or purchase order to the City.

iv. The value of anything transferred or received in violation of the provisions of this Chapter or regulations promulgated hereunder by any person subject to this Chapter may be recovered by the City.

D. **Prohibition Against Contingency Fees (§39.47 of City's Code of Ordinances).** NRWIB hereby represents that it has not retained anyone to solicit or secure a contract with the City upon an agreement or understanding for a commission, percentage, brokerage or contingency fee.

SECTION III – TRAINING OUTLINE

Name of the Worksite: Board of Education, Technology Center

Title of Worksite or Work Based Project: Distribution Center

Address: 32 Harper Avenue, Waterbury CT Phone: (203)574-8347

Name and Title of On-Site Supervisor: Frank Reese

Phone Number of On Site Supervisor: (203)574-6770

Name and Title of Alternate Supervisor: Samantha Warren

Phone Number of Alternate Supervisor: (203)574-6770

Ration of Participants to Supervisor: 1 to 10

Participant Job Title	**Number of Slots**
Information Technology (IT) Intern	1

Slot(s) shall commence on April 1, 2024 and continue until 400 total work hours have been completed.

Day	**Time**	**Hours of Work**
Monday	08:00am – 02:30pm	6
Tuesday	08:00am – 02:30pm	6
Wednesday	08:00am – 02:30pm	6
Thursday	08:00am – 02:30pm	6
Friday	08:00am – 02:30pm	6

Consistent with the job identified above, provide the following information:

Training Outline for Interns:

Objective: To equip interns with the necessary skills and knowledge to effectively troubleshoot hardware and network issues, perform system updates and security patches, maintain inventory control, and provide technical support for various devices.

Session 1: Introduction to Hardware and Network Troubleshooting
Understanding common hardware issues
Identifying network connectivity problems
Troubleshooting techniques and best practices
Session 2: Operating System Updates and Security Patches
Importance of OS updates and security patches
Hands-on practice with updating operating systems
Ensuring system security through timely patch management
Session 3: Anti-Virus Updates and Malware Scans

Overview of anti-virus software
Updating anti-virus definitions
Performing malware scans and removal

Session 4: Data Closet Management and Maintenance
Understanding data closets and their importance
Cleaning and organizing data closets
Proper wiring techniques for data closets

Session 5: Inventory Control and Asset Tagging
Importance of inventory control in IT management
Asset tagging procedures
Hands-on practice with asset tagging

Session 6: Wiring Mobile Carts
Setting up and wiring mobile carts
Ensuring proper cable management
Troubleshooting common issues with mobile carts

Session 7: Chromebook Maintenance
Refreshing Chromebooks for optimal performance
Reimaging PCs for software issues
Repairing Chromebook devices (keyboard, batteries, screens)

Session 8: Hands-on Practice and Assessment
Practical exercises covering all learned skills
Assessment of interns' proficiency in troubleshooting, maintenance, and repair tasks

Session 9: Review and Feedback
Recap of key concepts and skills learned
Gathering feedback from interns on the training program
Addressing any remaining questions or concerns

Conclusion: By the end of this training program, interns will have acquired a comprehensive understanding of hardware and network troubleshooting, system maintenance, inventory control, and technical support tasks, preparing them for successful roles in IT support and management.

NORTHWEST REGIONAL WORFORCE INVESTMENT BOARD

Signature Catherine N. Awwad	Title President and CEO	Date 3/18/2024

WORKSITE AGENCY
CITY OF WATERBURY

Signature Paul K. Pernerewski, Jr.	Title Mayor	Date

Schedule A

UNION CONCURRENCE

I, _____, as chief representative for the named bargaining unit, being_____, do hereby attest that this worksite does not infringe upon or hinder the current collective bargaining agreement, or negotiations thereof, which exist between this bargaining unit and the worksite.

_____ _____ _____

Signature Title Date

Please sign if not applicable:

Does not apply: _____ _____

Signature Date

SCHEDULE B

NORTREG-01 RAJASRAM

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 3/15/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Kennedy Barrow	
NFP Property & Casualty Services, Inc. 29 South Main Street, Suite 300 West Hartford, CT 06107	PHONE (A/C, No, Ext): (802) 473-9566	FAX (A/C, No):
	E-MAIL ADDRESS: kennedy.barrow@nfp.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Sentinel Insurance Company Ltd	11000
INSURED	INSURER B : Twin City Fire Insurance Company	29459
Northwest Regional Workforce Investment Board 249 Thomaston Ave. Waterbury, CT 06702	INSURER C : Great American Insurance Company	16691
	INSURER D : Hudson Excess Insurance Company	14484
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO-JECT LOC OTHER:	X	X	02SBABA9234	7/1/2023	7/1/2024	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 1,000,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	AUTOMOBILE LIABILITY ANY AUTO OWNED AUTOS ONLY SCHEDULED AUTOS X HIRED AUTOS ONLY X NON-OWNED AUTOS ONLY	X		02SBABA9234	7/1/2023	7/1/2024	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 10,000	X	X	02SBABA9234	7/1/2023	7/1/2024	EACH OCCURRENCE AGGREGATE	$ 3,000,000 $ 3,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	X	02WECAS3VAG	7/1/2023	7/1/2024	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
C	Directors & Officers			EPP1817049	7/1/2023	7/1/2024	Aggregate	1,000,000
D	E&O/Professional Lia			EEB 13403 03	7/1/2023	7/1/2024	Aggregate	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Re: NRWIB Internship Program 2024

City of Waterbury, Board of Education is named Additional insured as respects to General Liability, Automobile Liability and Umbrella Liability so long as a written contract or agreement to such exists with the named insured prior to a loss. A Waiver of subrogation in favor of the additional insured applies as respects to General Liability, Umbrella Liability and Workers Compensation coverage so long as written contract or agreement exists

CERTIFICATE HOLDER

City of Waterbury
Board of Education
235 Grand Street
Waterbury, CT 06702

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



© 1988-2015 ACORD CORPORATION. All rights reserved.
The ACORD name and logo are registered marks of ACORD

Schedule A

UNION CONCURRENCE

I, William George, as chief representative for the named bargaining unit, being UPSEU UNIT 69, do hereby attest that this worksite does not infringe upon or hinder the current collective bargaining agreement, or negotiations thereof, which exist between this bargaining unit and the worksite.

Signature	Title	Date
	President	3-18-24

Please sign if not applicable:

Does not apply: _____ _____

Signature Date

BOARD OF EDUCATION

Waterbury, Connecticut

COMMITTEE OF THE WHOLE

Item #13.5

February 16, 2023

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Committee of the Whole

BOARD OF EDUCATION

Waterbury, Connecticut

SUPERINTENDENT'S NOTIFICATION TO THE BOARD

Item #14.1

March 21, 2024

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Superintendent of Schools notifies the Board of Education of the following athletic appointments:

Name	*Position*	*Location*	*Effective*
Aresti, Robert	Baseball Coach	WSMS	03/04/24
Catricala, Julie	Assistant Softball Coach	KHS	03/16/24
Dubois, Zachary	Co-op Golf Coach	n/a	03/16/24
O'Toole, Laura	Head Volleyball Coach	WCA	08/15/24

Respectfully submitted,

Dr. Verna D. Ruffin
Superintendent of Schools

BOARD OF EDUCATION

Waterbury, Connecticut

SUPERINTENDENT'S NOTIFICATION TO THE BOARD

Item #14.2

March 21, 2024

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Superintendent of Schools notifies the Board of Education of the following grant funded appointments:

Name	*Position/Location*	*FT/PT*	*Rate*	*Union*	*Funding*	*Effective*
Boutagy, Laurice	Tutor WAMS	PT	$34/hr	NONBOE	Title I/A 23-25	02/15/24
Boyd, Donald	Prev. Specialist NEMS	FT	$22/hr	F UPSEU 69	Priority 23-24	02/12/24
Callahan, Tanner	Teacher Apprentice/MMS	PT	$17.14/hr	NONBOE	ESSER III 21-24	02/15/24
Cardona, Elizabeth	Parent Liaison Hopeville	FT	$20.06/hr	UPSEU 69	Title I/A 23-25	02/15/24
Diorio, Meghan	Tutor Bucks Hill	PT	$25/hr	NONBOE	Title I/A 23-25	02/29/24
Estrada, Ann	Tutor Holy Cross	PT	$25/hr	NONBOE	Title I/A 22-24	02/08/24
Green, Joshua	Network Spec. I 12 Month/WSMS	FT	$22.17/hr	UPSEU 69	Title I/A 23-25	02/22/24
Green, Samone	Classroom Assist. Sprague	FT	$21.47/hr	UPSEU 68	SR Priority 23-24	02/15/24
Kenneson, Sandra	Parent Liaison Maloney	FT	$20.06	UPSEU 69	Title I/A 23-25	02/22/24
Martinez-Sosa, Daybelys	Secretary Liaison to the Homeless	FT	$18.54/hr	F UPSEU 69	Title I/A 23-25	02/29/24
Morris, Ruddia	Network Spec. I 10 month/Sprague	FT	$22.17/hr	UPSEU 69	Title IV/A 23-25	02/29/24
Plourde, Malerie	Network Spec. I 10 month/WAMS	FT	$22.17/hr	UPSEU 69	ID Magnet WAMS 23-24	02/22/24
Reese, Frank	Network Spec. 2 12 month/Supply	FT	$29.30/hr	UPSEU 69	Title I/A 23-25	02/22/24
Smith, Kathryn	Tutor Bunker Hill	PT	$25/hr	NONBOE	Title I/A 23-25	02/29/24

Respectfully submitted,

Dr. Verna D. Ruffin
Superintendent of Schools

BOARD OF EDUCATION

Waterbury, Connecticut

SUPERINTENDENT'S NOTIFICATION TO THE BOARD

Item #14.3

March 21, 2024

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Superintendent of Schools notifies the Board of Education of the following miscellaneous before/after-school program appointments:

Name	*Position/Program*	*Location*
Gartman, Alexandera	Teacher/After School Star Program	WMS
Gluz, Debra	Teacher/After School Star Program	WMS
Grossman, Melissa	Teacher/After School Star Program	WMS
LaSalle, Ashley	Teacher/After School Star Program	WMS
Thornton, Micole	Teacher/After School Star Program	WMS
Zupperoli, Robert	Teacher/After School Star Program	WMS
Geffken, Melissa	Teacher/21st Century	
Crocetto, Kyle	Program Coordinator/Books & Basketball	Wilson FRC
Fengler, Kelly	Teacher/Books & Basketball	Wilson FRC
Guerrera, Sara	Sub/Books & Basketball	Wilson FRC
Jones, Catherine	Teacher/Books & Basketball	Wilson FRC
Roy, Brittany	Sub/Books & Basketball	Wilson FRC
Jester, Kristen	Social Worker/Books & Basketball	Reed FRC
Price, Deborah	Para/Books & Basketball	Reed FRC

Respectfully submitted,

Dr. Verna D. Ruffin
Superintendent of Schools

BOARD OF EDUCATION

Waterbury, Connecticut

SUPERINTENDENT'S NOTIFICATION TO THE BOARD

Item #14.4

March 21, 2024

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Superintendent of Schools notifies the Board of Education of the following Extended School Hours (ESH) appointments:

School	*Last name*	*First Name*	*Assignment*
Wilson	Guerrera	Sara	Teacher
Wilson	Fengler	Kelly	Teacher

Respectfully submitted,

Dr. Verna D. Ruffin
Superintendent of Schools

BOARD OF EDUCATION

Waterbury, Connecticut

SUPERINTENDENT'S NOTIFICATION TO THE BOARD

Item #14.5

March 21, 2024

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Superintendent of Schools notifies the Board of Education of the following miscellaneous appointments:

Name	*Position/Program*
Murphy, Amy	Extended School Year (ESY) Coordinator
Braun, Brooklyn	Academic Academy Student Selection Committee Member
Burgess, Susan	Academic Academy Student Selection Committee Member
Garcia, Sharyn	Academic Academy Student Selection Committee Member
Gluz, Debra	Academic Academy Student Selection Committee Member
Gordon, Kimberly	Academic Academy Student Selection Committee Member
Krampitz, Paula	Academic Academy Student Selection Committee Member
O'Connor, Timothy	Academic Academy Student Selection Committee Member
Poveda, Carlos	Academic Academy Student Selection Committee Member
Shortt, Katia	Academic Academy Student Selection Committee Member
Bayliss, Michelle	ELA Curriculum Writing Team
Franks-Blanchard, Lauren	ELA Curriculum Writing Team
Riddick, DeAndre	ELA Curriculum Writing Team

Respectfully submitted,

Dr. Verna D. Ruffin
Superintendent of Schools

BOARD OF EDUCATION

Waterbury, Connecticut

SUPERINTENDENT'S NOTIFICATION TO THE BOARD

Item #14.6

March 21, 2024

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Superintendent of Schools notifies the Board of Education of the following retirements:

Name	*Assignment*	*Effective*
Delaney, Robert	Special Education Supervisor	06/30/24
DiPietro, Aline	WSMS/PE-Health	06/30/24
Dizenzo, Vincent	WMS/Special Ed	06/30/24
Hastings, Paula	Reed/Special Ed	06/30/24
Motowidlo, Diane	Duggan/Bilingual	06/30/24
Smyth, Susan	WMS/Theater	06/30/24
Valenti, Michele	WMS/Computer & Business	06/30/24
Washington, Brenda	WAMS/Science-Biology	06/30/24

Respectfully submitted,

Dr. Verna D. Ruffin
Superintendent of Schools

BOARD OF EDUCATION

Waterbury, Connecticut

SUPERINTENDENT'S NOTIFICATION TO THE BOARD

Item #14.7

March 21, 2024

To the Board of Education
Waterbury, CT

Ladies and Gentlemen:

The Superintendent of Schools notifies the Board of Education of the following resignations:

Name	*Assignment*	*Effective*
Abuhamed, Hoda	WMS/Tech. Ed-Information-CAD	03/15/24
Cassella, Mark	WMS/ELA	02/28/24
DiBella, Lisa	Washington/Grade 1	03/13/24
Holda-Vaccaro, Michelle	WSMS/Grade 6 ELA	03/01/24
Maghini, Michele	Sprague/K	03/15/24
Napp, Matthew	Carrington/ELA	03/14/24
Vidal, Nelly	R. C. International/Biliteracy Coach	06/30/24

Respectfully submitted,

Dr. Verna D. Ruffin
Superintendent of Schools



COMMUNICATIONS



March 6, 2024 through
March 19, 2024

Carrie Swain

From: noreply@cabe.myenotice.com on behalf of Shannon Hamilton <noreply@cabe.myenotice.com>
Sent: Friday, March 15, 2024 8:01 AM
To: Carrie Swain
Subject: Policy Highlights

EXTERNAL MAIL- Think before you Click. More than 90% of successful cyber attacks start with a phishing email. This email originated from outside the District.

Policy Services

CABE Policy Highlights

Jody I. Goeler, Senior Staff Associate for Policy Service

The topic for the March 14, 2024 issue of the CABE Policy Highlights includes the **Seven Principles for AI in Education, Increasing Educator Diversity (continued) and CSDE Financial Literacy Course Kit.**. A link is included in this Highlights to Policy/Regulation 4111.3. We have also included a link to CSDE Financial Literacy Course Kit and the CSDE Personal Financial Management and Financial Literacy (ct.gov) webpage for additional resources.

Please take the time to read through this informative issue of the Policy Highlights.

Please click this link to download the PDF version of this Policy Highlights

---

Connecticut **A**ssociation of **B**oards of **E**ducation
81 Wolcott Hill Road
Wethersfield, Connecticut 06109
Phone 860-571-7446 Fax 860-571-7452
www.cabe.org

Unsubscribe from this mailing list

Connecticut Association *of* Boards of Education

Jody I Goeler, Senior Staff Associate for Policy Service

PRESENTS

POLICY HIGHLIGHTS

March 14, 2024

In a report published in eSchool News, Laura Ascione identifies a new framework intended to guide the responsible use of AI to enhance learning while also protecting privacy and promoting educational equity. (November 10, 2023) Released in October 2023, the Software & Information Industry Association (SIIA) released Principles for the Future of AI in Education, which is expected to help the ed tech industry support educators' efforts to infuse AI effectively and safely in their classrooms. As boards and superintendents consider adopting and/or updating AI and responsible use policies, these seven principles may provide useful guidance to balance privacy concerns with instructional opportunities:

1. AI technologies in education should address the needs of learners, educators, and families.
2. AI technologies used in education should account for educational equity, inclusion and civil rights as key elements of successful learning environments.
3. AI technologies used in education must protect student privacy and data.
4. AI technologies used in education should strive for transparency to enable the school community to effectively understand and engage with AI tools.
5. Companies building AI tools for education should engage with education institutions and stakeholders to explain and demystify the opportunities and risks of new AI technologies.
6. Education technology companies and AI developers should adopt best practices for accountability, assurance, and ethics, calibrated to mitigate risks and achieve the goals of these principles.
7. The education technology industry should work with the greater education community to identify ways to support AI literacy for students and educators.

Sara Kloek, Vice President, Education and Children's Policy for SIIA, noted, "As the trade organization representing the leading companies in ed tech, it is our mission to advance the responsible use of AI to enhance a learner's educational experiences while at the same time protecting their privacy, promoting educational equity, upholding civil rights, and developing important skills for the future." Not a bad opening line for a responsible use policy.

In January 29's Policy Highlight, I shared CABE's updated policy, which spelling out the board's obligation to submit their district's Educator Diversity Plans to the State Department of Education by March 15th. Policy no. 4111.3, Educator Diversity Plan, which replaces the policy previously titled Minority Recruitment Plan, is not a mandated policy.

Boards of Education are not required to have a policy for increasing educator diversity. However, CABE has developed this model policy and regulations to support boards of education and

superintendents as they carry out this multifaceted and critical work. The policy speaks to the board's commitment and recognition that there will need to be a sustainable effort to close the gap between the increasing diversity of our students and the current under-representation among the educator workforce.

The regulations provide a broad overview of the important elements of successful planning. Perhaps more importantly, they include links to excellent resources for the teams developing these plans and leading the work forward.

To lend support for this critical initiative, the legislature passed in 2023 a $10 million allocation for the Aspiring Educators Diversity Scholarship Program. Available to Connecticut's 16 Priority Districts, students can receive up to $10,000.00 to pursue a career in education. In a recent Op-Ed piece published in the Hartford Courant (March 12, 2024), a member of the Windsor Board of Education and Chair of the CABE Board of Directors, Leonard Lockhart, requested the General Assembly "keep its promises." One of those commitments noted in his piece is to "Invest in programs that promote the training, hiring, and retention of educators of diverse backgrounds and increase opportunities for district's and RESC's grow-your-own programs."

While the Educator Diversity Plan calls attention to this important initiative and provides a meaningful and broad framework and useful resources for districts, investing in our young people of color to pursue careers in teaching remains a critical lynchpin in meeting our goal as a State to diversify the educator workforce.

In the CT Mirror article, *CT Urges Students to Apply for $10K Educator Diversity Scholarship* (Jessika Harkay, March 11, 2024), Senator Doug McCrory, co-chair of the Education Committee, noted about this scholarship program, "It was one of the most important pieces of legislation that passed last year." Calling urgency to the matter of increasing educator diversity, he added, "Right now, about 53% of the children that attend public schools in the state of Connecticut are children of color. Yet, about 11% of the teachers are teachers of color. That has to change."

The second application period for the Aspiring Educators Diversity Scholarship Program closes March 15th, the date districts are required to submit their plans for increasing educator diversity. With the appropriate level of urgency related to initiatives addressing the lack of educator diversity and the overall teacher shortage our State is confronting, perhaps this scholarship opportunity can be extended to students of color in all of our districts.

In a recent update provided to superintendents, the Connecticut State Department of Education is now making available its CSDE Financial Literacy Course Kit, which they describe as a resource "to support the design, development, and implementation of financial literacy and financial management courses or learning experiences to support the accumulation of credit in grades 9-12."

The statement continues, "This unique resource provides guidance for certification, learning models, updating local curricula, access to instructional resources, and alignment to Career and Technical Student Organizations. The CSDE Personal Financial Management and Financial Literacy (ct.gov) webpage has additional resources as well. All inquiries can be sent to Chief Academic Officer Irene Parisi at Irene.Parisi@ct.gov."