CSK ARCHITECTS, P. C.

2025 ROOFING PROJECTS for the
MERRILLVILLE COMMUNITY SCHOOL CORPORATION
6701 DELAWARE STREET
MERRILLVILLE, INDIANA 46410

MERRILLVILLE COMMUNITY SCHOOL CORPORATION

DR. DEXTER SUGGS, Sr., SUPERINTENDENT / BUSINESS
MEGHAN DAMRON, CHIEF FINANCIAL OFFICER
GREG GRIFFITH, DIRECTOR: MAINTENANCE SERVICES

BOARD OF SCHOOL TRUSTEES

ALEX DUNLAP III, PRESIDENT
JAMES DONOHUE, VICE PRESIDENT
DELENA THOMAS, SECRETARY
JUDY DUNLAP, MEMBER
BOB KRAUSE, MEMBER

February 3, 2025

Architect's Project #24066

6919 W. LINCOLN HIGHWAY
CROWN POINT, IN 46307
219.322.5950 www.cskarchitects.com

CERTIFICATION PAGE

Project: **2025 Roofing Projects for the**
Merrillville Community School Corporation
6701 Delaware Street
Merrillville, Indiana 46410

Owner: **Merrillville Community School Corporation**
Dr. Dexter Suggs, Sr., Superintendent / Business
Meghan Damron, Chief Financial Officer
Greg Griffith, Director: Maintenance Services

Board of School Trustees
Alex Dunlap III, President
James Donohue, Vice President
DeLena Thomas, Secretary
Judy Dunlap, Member
Bob Krause, Member

Architect: **CSK Architects, P.C.**
6919 W. Lincoln Highway
Crown Point, Indiana 46307
(219) 322-5950

Project Architect: **Thomas E. Kuhn, AIA, CSI, ALA**
E-Mail: tkuhn@cskarchitects.com
Office: (219) 322-5950
Cell Phone: (219) 741-1849

Architect's Project #'s: **24066**

Dated: **February 3, 2024**

Certified By:

Thomas E. Kuhn, AIA, CSI, ALA

THOMAS E. KUHN
REGISTERED
AR 19500131
STATE OF INDIANA
ARCHITECT

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SECTION 00 1113

NOTICE TO BIDDERS
#____

2025 Roofing Projects for the
Merrillville Community School Corporation
6701 Delaware Street
Merrillville, Indiana 46410

Sealed proposals for the 2025 Roofing Projects for the Merrillville Community School Corporation at the Merrillville High School, Wood Elementary School, and Miller Elementary School in accordance with Bid Documents as prepared by CSK Architects, P.C. will be received by the Merrillville Community School Corporation at their Administrative Services Building at 6701 Delaware Street, Merrillville, Indiana 46410 until 3:00 AM on Tuesday February 20th, 2025, at which time they will be opened and publicly read aloud. Bids received after the above stated time and date as specified, shall be returned to the sender unopened and declared non-acceptable.

All Bidders are requested to attend the Pre-Bid Meeting. The Pre-Bid Meeting will start at 1:00 PM on Thursday February 6th, 2025 at Wood Elementary School and then will move to Miller Elementary School and then will move to Merrillville High School at Entrance D.

Work includes: Reroofing

Multiple Prime Bids will be received per the Architect's Bid Form for the Reroofing Work.

All Bidders must submit a satisfactory bid bond executed by the bidder and surety company or a certified check or bank draft, payable to the Merrillville Community School Corporation in an amount equal to five percent (5%) of their maximum bid, as provided by law.

The successful Bidder, within ten (10) days of acceptance of bids, will be required to execute a performance bond requiring one hundred percent (100%) performance and one hundred percent (100%) labor and material payment. In the event of failure of the successful bidder to execute said bond as stated above, the bidder shall forfeit its bid guaranty as liquidated damages. Bid guaranties of unsuccessful bidders shall be returned upon award of contracts.

Electronic copies of the Bid Documents will be made available at no cost via Dropbox upon an Email request from the Architect. Email Tom Kuhn at tkuhn@cskarchitects.com. Electronic copies of the Bid Documents will be made available at no cost via the Merrillville Community School Corporation website at www.mvsc.k12.in.us/bid. Hard copies of the Bid documents are available for review at the Office of the Architect and also available for review at the Merrillville Community School Corporation Administrative Services Building at 6701 Delaware Street, Merrillville, Indiana 46410.

All bids shall be sealed and submitted on the Bid Proposal Form in the Project Manual obtained from the office of CSK Architects, P.C., 6919 W. Lincoln Highway, Crown Point, 46307. Bids shall be properly executed on Form 96 including the Non-collusion Affidavit and Contractor's Financial Statement, as prescribed by the Indiana State Board of Accounts and all other Bid Documents requested.

The Merrillville Community School Corporation reserves the right to reject any or all bids, to waive any informalities in bidding, or to return unopened any proposal received after the time fixed herein.

No Base Bid or Alternates shall be withdrawn for a period of sixty (60) days, subsequent to the opening of bids.

Merrillville Community School Corporation, 6701 Delaware Street, Merrillville, Indiana 46410

(First Publication: January 28, 2025) (Second Publication: February 4, 2025)

END OF SECTION

SECTION 00 1115

BID AND POST BID SUBMISSION REQUIREMENTS

PART 1 GENERAL

1.01 BID SUBMISSION REQUIREMENTS

A. The following Bid Package Documents must be submitted in accordance with the Architect's Bid Documents and the Advertisement for Bid published by the Post Tribune and The Times on June 18, 2024 and June 25, 2024.

1. Current Indiana State Form 96. Fully executed with the Non-Collusion Affidavit signed.
2. Financial Statement as prescribed by the Indiana State Board of Accounts.
3. Bid guarantee in the form of a Bid Bond from a surety company or a certified check equal to 5% of the total of all Base Bids and Alternate Bids proposed by Bidder.
4. Qualification Statement per Specification Section 00 4513 - Bidder's Qualifications Statement.
5. Certification of E-Verify Program. Fully executed and notarized.
6. Certification Statement Regarding Investments in Iran.
7. Architect's Bid Form fully executed, signed and dated. Signator must be legally authorized by the bidder. All addendums issued by the Architect must be acknowledged on the Bid Proposal.

The above documents shall be submitted in sealed envelopes per specification Section 00 2113 - Instructions to Bidders and 00 1115 – Bid and Post Bid Submission Requirements. Failure to submit any of the above documents may disqualify the bidder's bid.

B. POST BID SUBMISSION REQUIREMENTS

1. The Bidders are also required to submit all RFI's for all portions of their and their subcontractors work for outstanding issues, clarifications, etc. that were not addressed prior to the bid. RFI's are required to be submitted to the Architect within seven (7) consecutive calendar days of the bid due date and time. The Owner is requesting this information in order to evaluate the bidders understanding of the Bid Documents, their responsiveness and level of responsibility and their complete and thorough comprehension of the Scope of Work.

2. The intention of this requirement is also intended to encourage the bidders to thoroughly evaluate the Scope of Work and to submit during the bidding process RFI's in order for the Architect to provide all Bidders with the level of detailed information the bidders require to submit a sound and competitive bid.

3. The bidders are required to submit to the Architect within 24 hours of bid due date and time a complete list of subcontractors listing only one contractor to be awarded a contract for each work category. The bidder may not deviate from awarding contracts to the listed subcontractors without permission from the Owner.

END OF SECTION

SECTION 00 2113

INSTRUCTIONS TO BIDDERS

1.01 SPECIAL INVITATION TO BIDDERS

A. The Owner reserves the right to reject any or all bids. Bidder's bid must comply with all requirements of Bid Documents. See Section 00 1115 Bid and Post Bid Submission Requirements.

B. The attention of bidders is directed to the fact that bids are invited separately as itemized in the bid documents. Each bidder submitting a bid for a base bid is requested to bid all alternate bids for that bid category of work as listed in the specifications and the bid proposal.

C. Bidders are required to inform themselves fully as to the conditions relating to construction and labor under which the work will be or is now being performed, and insofar as practicable, the Contractor must employ such methods and means in the carrying out of his work as will not cause any interruption of or interference with any other Contractor.

D. This Project Manual has bound hereto a complete set of bidding forms; these are for the convenience only of the bidders and are not to be detached from the Project Manual or filled or executed. Separate copies of bid forms are furnished for that purpose.

E. All bidders are cautioned to carefully read and examine the complete set of Bid Documents to acquaint themselves with any and all requirements therein and submit Requests for Information (RFI) to clarify all issues that are not understood by the bidder.

F. The Project Manual is bound into one book. The specifications are divided into sections. Such assembly and divisions does not relieve the Contractor from any work shown or specified in any part of the drawings or Project Manual. Bidders should also notice all cases where it is specified that certain work or materials, or both, is to be omitted by them, and is to be furnished by others or incorporated therein. It is understood that the various bidders have included such work in their bids even though the same is not specifically mentioned within various sections of the specifications upon which they are bidders.

1.02 BID FORMS

A. All bids must be submitted in conformity with and shall be based upon and submitted subject to all requirements of the Bid Documents.

B. Bid documents shall be enclosed in two envelopes (outer and inner), both of which shall be sealed and clearly labeled "Bid Documents" so as to guard against opening prior to the time set therefore. The bidder shall be responsible for the placement of his firm name and number of the project on the outside of both of such bid envelopes.

C. The Owner may consider as informal any bid on which there is an alteration of or departure from the Bid Form hereto attached.

D. The Bid will be based upon the completion of the work according to the Bid Documents together with all Addenda thereto and any alternates which may be requested.

E. Bidders may offer Voluntary Combination Bids on the Bid Form provided the Bidder also provides bids for all Base Bids included in Combination Bids.

1.03 INTERPRETATIONS

A. If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of these proposed Bid Documents, he may submit to the Architect a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt and actual delivery. Any interpretation of such documents will be made only by written addendum duly issued by the office of the architect and a copy of such addendum will be provided to each bidder on record at the Architect's office as a plan holder. The Owner will not be responsible for any other explanation or interpretations of such documents which anyone presumes to make on behalf of the Owner before expiration of the ultimate time set for the receipt of the bids.

1.04 CONDITIONS OF SITE AND WORK

A. All bidders shall examine the site and thoroughly familiarize themselves on the conditions to be met both above and below grade on the site of the proposed building. Any bidder that is awarded a contract, shall not be allowed any extra compensation by reason of any matter or thing concerning which such bidder might have fully informed himself prior to the bidding. The Contractor shall have free use of the premises surrounding the building and within the Owner's property, but shall box all trees and shrubs that come within his operations and which are not to be removed.

1.05 TAXES

A. This project has tax exempt status

1.06 PERMITS, FEES, LICENSES AND NOTICES

A. Unless otherwise provided in the Bid Documents, the owner shall pay for all other permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the work which are customarily secured after execution of the contract.

B. The bidder shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the work.

C. It is not the responsibility of the contractor to make certain that the Bid Documents are in accordance with applicable laws, statutes, building codes and regulations. If the bidder observes that any of the Bid Documents are at variance therewith in any respect, he shall promptly notify the Architect in writing, and any necessary changes shall be accomplished by appropriate modification.

D. The contractors and subcontractors are responsible to secure all local contractor licenses that may be required by the local governing agency having jurisdiction over the work.

1.07 CORRECTIONS

A. All erasure, interpolations and other physical changes in a bid should be signed or initialed by the bidder. No erasures, interpolation or other physical changes should be made by anyone in any bid after its submission.

1.08 TIME FOR RECEIVING BIDS

A. Bids received prior to the time of opening will be securely kept unopened. The officer whose duty it is to open them will decide when the specified time has arrived, and no bid received thereafter will be considered. No responsibility will attach to an officer for the premature opening of a bid not properly addressed and identified.

B. Bidders are cautioned to allow ample time for transmittal of bids by mail or otherwise. Bidders should secure correction information relative to the provable time of arrival and distribution of mail at the place where bids are to be opened and, so far as practicable, make due allowance for possible delays.

1.09 WITHDRAWAL OF BIDS

A. Bids may be withdrawn by written or facsimile request dispatched by the bidder in time for delivery in the normal course of business prior to the time fixed for opening, provided that telegraphic withdrawal is confirmed in writing over the signature of the bidder within 48 hours thereafter. Negligence on the part of the bidder in preparing the bid confers no rights for the withdrawals of the bid after it has been opened.

1.10 AWARD OF CONTRACT - REJECTION OF BIDS

A. The Contract will be awarded to the lowest responsive and responsible bidder complying with the conditions of the advertisement for bids, provided his bid is reasonable and to the interest of the Owner to accept it. The bidder to whom the award is made will be notified at the earliest possible date. The Owner also reserves the right to reject the bid of any bidders who have previously failed to perform properly, or complete on time contracts of a similar nature, who is not in the position to perform the contract or has habitually and without just cause neglected the payment of bills or otherwise disregarded his obligations to subcontractors, material men or employees. In determining the lowest responsive and responsible bidder, the following elements in addition to those above mentioned will be considered: whether the bidder involved (a) maintains a permanent place of business, (b) has adequate plant equipment to do the work properly and expeditiously, (c) has a suitable financial status to meet the obligation incidental to the work, (d) has appropriate technical experience (e) has responded to all conditions of the Contract Documents.

1.11 TIME OF COMPLETION

A. The work shall be commenced at the time stated in the notice to the Contractor to proceed or as stated in the contract and shall be completed in the number of days as proposed by the bidders on their Bid Form.

1.12 "OR EQUAL" CLAUSE

A. Whenever in any of the Bid Documents an article, material, or equipment is defined by describing a proprietary product, or by using the name of a manufacturer or vendor, the term "or equal", if not inserted, shall be implied. The specific article, material or equipment mentioned shall be understood as indicating the type, function, minimum standard of design, efficiency and quality desired and shall not be construed in such a manner as to exclude manufacturer's products of comparable quality, design and efficiency.

B. The bidders will be required to base their proposals on the articles, materials and equipment specified, and shall not make any substitutions, unless approval of proposed substitution is issued by an addendum issued by the Architect.

C. The contractor may offer any voluntary alternate for alternate articles, materials or equipment on the Bid Proposal. Award of bid shall not be based on voluntary alternates.

1.13 PERFORMANCE BOND, LABOR AND MATERIAL PAYMENT BOND AND EXECUTION OF CONTRACT

A. On Contracts $200,000 and above the successful bidder shall furnish a performance bond and a labor and material payment bond in the sum of at least one hundred percent (100%) of the total amount payable by the terms of the contract. Cost of performance bond and labor and material payment bond shall be included in the bid.

B. The successful bidder shall execute the contract with the Owner in the form of the contract included in the specifications in such number of counter-parts as the Owner may request.

C. Such performances and payment bond shall be furnished and such contract shall be executed and delivered by the successful bidder within 10 days after the receipt by the successful bidder of notice of acceptance of his bid by the Owner.

D. Address and Signature: Each bid should give the full business address of the bidder and should be signed by him with his usual signature. Bid by partnerships should be signed with the partnership name by one of the members of the partnership or by an authorized representative, followed by the signature and designation of the President, Secretary, or other person authorized to bid it in the matter. The names of all persons affixes to this signature the word "President", "Secretary", "Agent" or other designation, without disclosing his principal, may be held to the bid of the individual signing. When requested by the Owner, satisfactory evidence of the authority of the officer signing in behalf of the corporation should be furnished.

1.14 RIGHT OF FIRST REFUSAL

A. Owner shall have right of first refusal on any removed materials. If Owner elects not to keep any removed materials, bidder shall remove from site. If Owner elects to keep removed materials, bidder shall store on site as directed by Owner, until Owner can remove at a later date if he wishes.

END OF SECTION

SECTION 00 2413

SCOPE OF BIDS

PART 1 GENERAL

1.01 SCOPE OF BIDS

The scope of work consists of the following in accordance with the bid categories as listed below:

BASE BID #1 - Reroofing – Merrillville High School – 25 Year Warranty

To include any and all work associated with the Reroofing at the Merrillville High School all in accordance with the Bid Documents as Base Bid #1.

BASE BID #2 - Reroofing – Merrillville High School – 30 Year Warranty Reroofing

To include any and all work associated with the Reroofing at the Merrillville High School all in accordance with the Bid Documents as Base Bid #2.

BASE BID #3 - Reroofing – Merrillville High School and Intermediate School Out Buildings - Shingles

To include any and all work associated with the Reroofing at the Merrillville High School and Intermediate School Out Buildings all in accordance with the Bid Documents as Base Bid #3

BASE BID #4 - Reroofing – Pierce Middle School – Shingles

To include any and all work associated with the Reroofing at Pierce Middle School all in accordance with the Bid Documents as Base Bid #4.

BASE BID #5 - Reroofing – Iddings Elementary School – Shingles

To include any and all work associated with the Reroofing at the Iddings Elementary School all in accordance with the Bid Documents as Base Bid #5.

COMBINATION BASE BID #6 - Reroofing – Shingles

To include any and all work associated with the Reroofing to include Base Bids #3, #4 and #5 as listed above all in accordance with the Bid Documents as Base Bid #6.

UNIT PRICE #1 – Metal Roof Deck Replacement

Unit price per square foot to replace the existing metal deck in kind with 1 ½" thick 22 gauge painted Type B metal deck.

UNIT PRICE #2 – Removal and Replacement of Additional Wet Areas of Roofing

State the unit price per square foot for the removal and replacement of additional wet areas of roofing with in-kind ___" thick rigid insulation, ½" Densdeck, roof membrane and the fluid applied roofing.

UNIT PRICE #3 – Removal and Replacement of Additional Wet Areas of Roofing

State the unit price per square foot for the removal and replacement of additional wet areas of roofing with in-kind 5” thick rigid insulation, ½” Densdeck, roof membrane and the fluid applied roofing.

UNIT PRICE #4 – Wood Roof Deck Replacement

Unit price per square foot to replace the existing wood roof deck in kind with ½” thick OSB sheathing.

END OF SECTION

SECTION 00 3100

AVAILABLE PROJECT INFORMATION

1.01 INFORMATION AVAILABLE

A. Certification Statement Regarding Investments in Iran – copy attached to this section.

B. CSK Architects, P.C.'s Disclaimer Form for limited use of electronic copies of the Contract Documents which will be made available to the successful bidder for their use to assist in the construction of the project per the requirements of such will be made available electronically from the Architect.

C. Attached is a copy of Tremco's Roof Diagnostic Survey for Merrillville Schools dated 12-11-25.

END OF SECTION

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CERTIFICATION STATEMENT REGARDING INVESTMENTS IN IRAN

I,_____ , certify to the following:

1. Pursuant to Indiana Code 5-22-16.5 *et seq.,* I am not now engaged in investment activities in Iran.
2. I understand that providing a false certification could result in the fines, penalties, and civil action listed in I.C. 5-22-16.5-14.

Executed this _____day of _____ , 2021.

Signature:_____

Printed:_____

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DISCLAIMER FOR USE OF
CSK ARCHITECTS, P.C.
CADD DRAWINGS

_____does hereby acknowledge they have the authority to act as the legal agent of _____ and does hereby acknowledge that CSK Architects, P.C. has been requested to deliver to them CADD Drawings for the Architect's Project #_____-_____ as prepared by CSK Architects, P.C. The requested drawings listed below are to be used at their own risk and solely in order to assist with the _____Project's As-Built Drawings, Shop Drawings, Submittals or Diagrams. CSK Architects, P.C. makes no warranty, expressed or implied for the use of such CADD Drawings.

Drawings requested:

Accepted: _____
(Signature)

Date: _____

Please return signed Disclaimer Form.

V:\CSK PC Architects\CSK Forms\CSK Disclaimer.docx

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Roof Diagnostics, LLC

Commercial/Industrial Roofing: Asset Management, Defect Investigation, Design/Build, Moisture Scanning, UAV Inspection

Moisture Scan

Date:	12/11/24
Prepared For:	Merrillville Community School Corporation
Location:	6701 Delaware St. Merrillville, IN
Scope:	Moisture Scan: Nuclear Meter Method Roof Area: Approx. 199,642 sq. ft.; Roof System: PVC/TPO
Purpose:	Determine presence & extent of trapped moisture within roof assembly

The Troxler 3216 Moisture Meter gauge measures moisture concentration within a roof structure utilizing the theory of neutron thermalization. This gauge contains an Americium 241: Beryllium source. This source emits fast neutrons which are then thermalized (or slowed) by hydrogen present in the measurement area. The He3 detector in the gauge then counts the thermalized neutrons. Because other hydrogen bearing materials are present in roof structures, a measurement survey is performed to establish a relative base level, or a gauge reading that indicates a dry area. Areas showing a higher than normal moisture count can then be determined to contain moisture of varying levels.

The Tramex CMEX II resistance pin-type moisture meter was used to calibrate the Troxler 3216 gauge to existing site conditions and used to verify the moisture content of the core samples.

Moisture found within a roofing assembly will eventually lead to rot and decay, mold growth, and failure to the roof system and the building's structure. Additionally, wet insulation loses its thermal value, resulting in unnecessary heat loss or gain and thermal movement in the structure.

The elevated moisture locations identified during our investigation were outlined with orange marking spray paint. These areas can be easily identified by your roofing contractor for repair or replacement. Cores at each location can be performed for subjective evaluation by your roofing contractor and/or roofing manufacturer. If objective moisture content is necessary, we can provide a gravimetric analysis of the core cuts to determine exact moisture content.

5 Revere Dr., Suite 200-#0022, Northbrook, IL 60062 **Office: 847-867-7093**
Web Site: www.RoofDiagnostics.net **E-Mail: DPerry@RoofDiagnostics.net**

Roof Diagnostics

12/11/2024 | 86 Photos

12/10/24 - Moisture Scan

6701 Delaware St. Merrillville IN

Building identification

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 2:52pm

Building identification

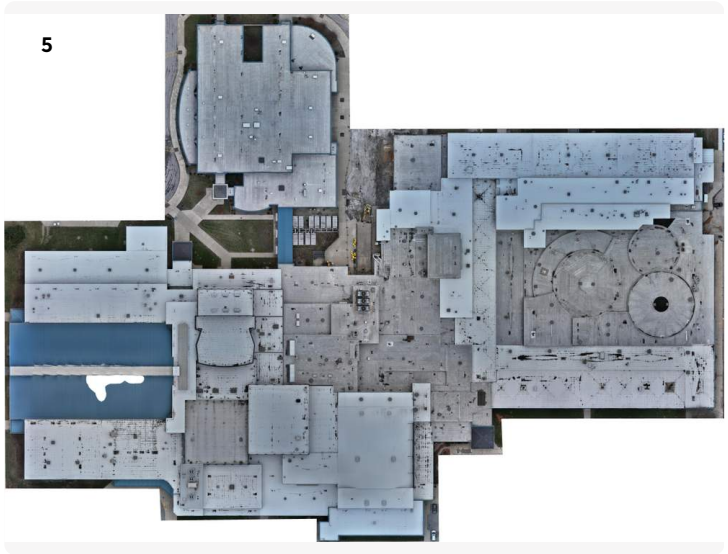
Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 2:52pm

Building identification

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 2:54pm

Building identification

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 2:53pm



Overhead of roofs

Project: 12/10/24 - Moisture Scan
Date: 12/11/2024, 4:02pm

Photo location #1

- Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:04am

Photo location #2
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:07am

Photo location #3
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:12am

Photo location #4
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:19am

Photo location #5
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:21am

Photo location #6
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:25am

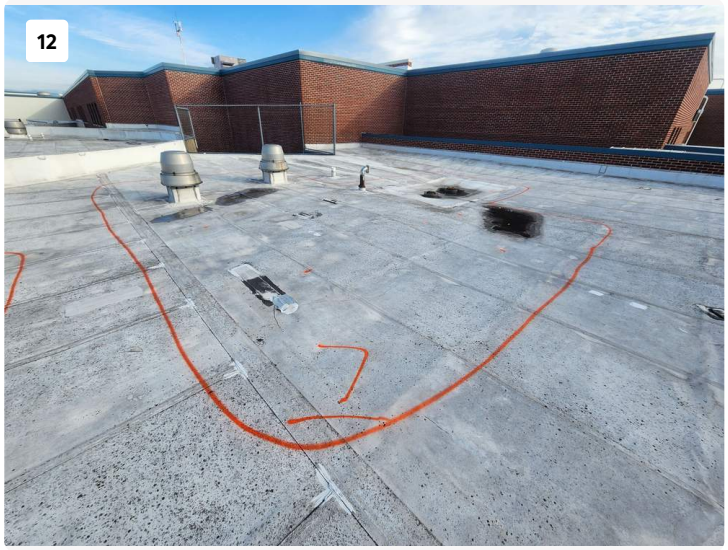


Photo location #7
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:29am

Photo location #8
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:31am

Photo location #9
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:32am

Photo location #10
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:40am

Photo location #11
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:42am

Photo location #12
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:47am

Photo location #13
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:48am

Photo location #14
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:51am

Photo location #15
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:54am

Photo location #16
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:56am

Photo location #17
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 10:09am

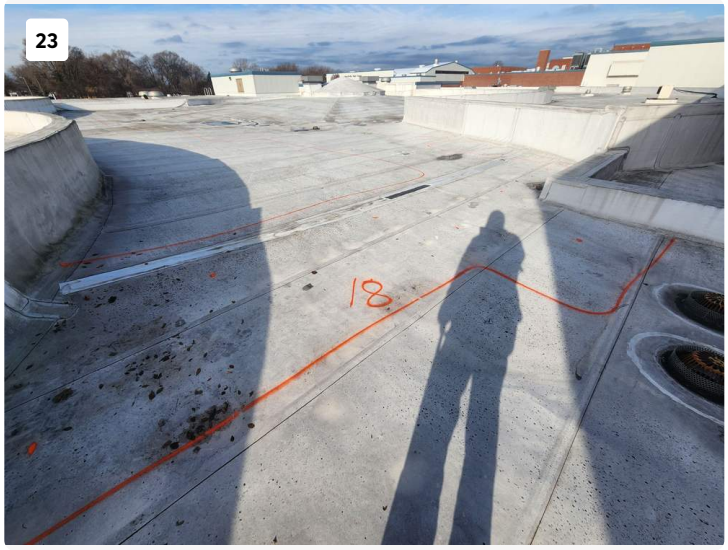


Photo location #18
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 10:10am

Photo location #19
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 10:14am

Photo location #20
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 10:16am

Photo location #21
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 10:22am

Photo location #22
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 10:23am

Photo location #23
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 10:28am

Photo location #24
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 10:30am

Photo location #25
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 10:33am

Photo location #26
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 10:51am

Photo location #27
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 10:54am

Photo location #28
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 10:55am

Photo location #29
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 10:55am

Photo location #30
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:04am

Photo location #31
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:07am

Photo location #32
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:09am

Photo location #33
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:11am

Photo location #34
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:13am

Photo location #35
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:18am

Photo location #36
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:18am

Photo location #37
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:23am

Photo location #38
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:24am

Photo location #39
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:26am

Photo location #40
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:29am

Photo location #41
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:31am

Photo location #42
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:35am

Photo location #43
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:38am

Photo location #44
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:40am

Photo location #45
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:46am

Photo location #46
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:46am

Photo location #47
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 11:48am

Photo location #48
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:06pm

Photo location #49
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:14pm

Photo location #50
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:18pm

Photo location #51
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:24pm

Photo location #52
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:26pm

58

Photo location #53
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:32pm

59

Photo location #54
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:34pm

60

Photo location #55
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:36pm

Photo location #56
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:41pm

Photo location #57
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:43pm

Photo location #58
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 1:29pm

Photo location #59
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 1:34pm

Photo location #60
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 1:36pm

Photo location #61
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 1:42pm

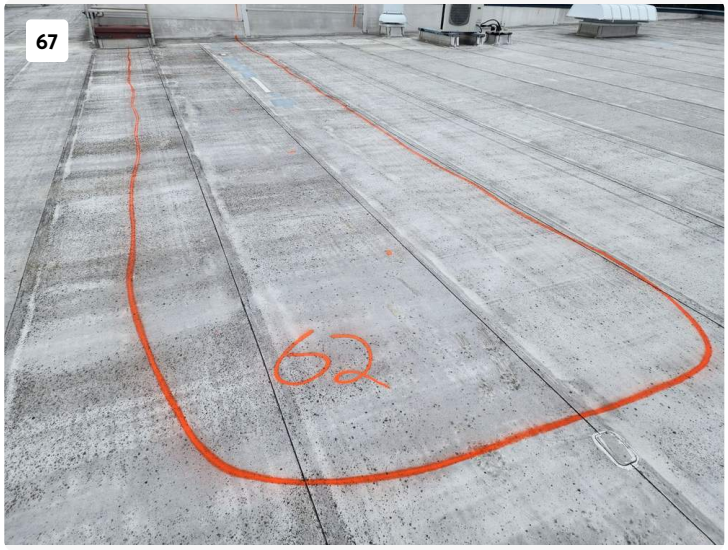


Photo location #62
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 1:46pm

Photo location #63
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 2:07pm

Photo location #64
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 2:14pm

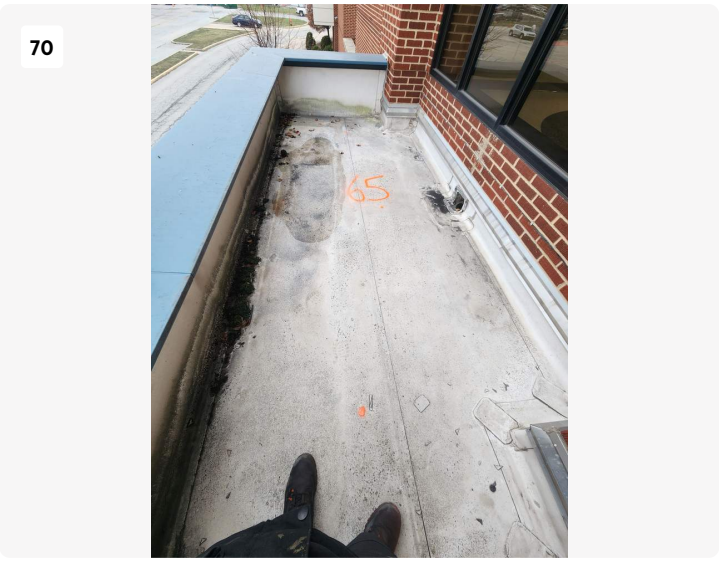


Photo location #65
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 2:21pm

Photo location #66
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 2:32pm

Photo location #67
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 2:32pm

Photo location #68
• Identified elevated moisture.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 2:33pm

Core #1
• Core take to calibrate moisture meter to existing roof conditions and verify elevated moisture with resistance pin moisture meter.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 8:48am

Core #1
• Core take to calibrate moisture meter to existing roof conditions and verify elevated moisture with resistance pin moisture meter.
• High amount of moisture in top layers of insulation.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 8:52am

Core #1
• Core take to calibrate moisture meter to existing roof conditions and verify elevated moisture with resistance pin moisture meter.
• High amount of moisture in middle layers of insulation.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 8:52am

Core #1
• Core take to calibrate moisture meter to existing roof conditions and verify elevated moisture with resistance pin moisture meter.
• Intermediate amount of moisture in lower layers of insulation.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 8:53am

Core #1
• Core take to calibrate moisture meter to existing roof conditions and verify elevated moisture with resistance pin moisture meter.
• Subjective analysis showing moisture under the membrane.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 8:50am

Core #1
• Core take to calibrate moisture meter to existing roof conditions and verify elevated moisture with resistance pin moisture meter.
• Subjective analysis showing moisture under the membrane.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 8:50am

Core #1
• Core patched with temporary repair materials. Your roofer should repair with permanent repair materials.

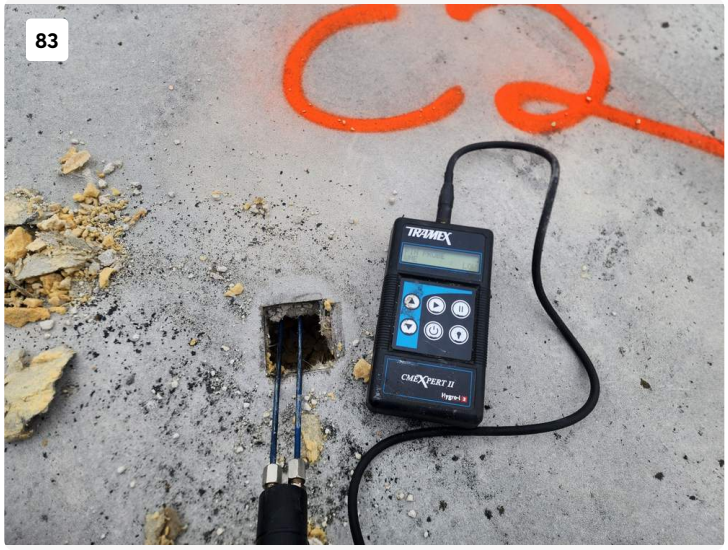
Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 9:00am

Core #2
• Core take to calibrate moisture meter to existing roof conditions and verify elevated moisture with resistance pin moisture meter.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:55pm

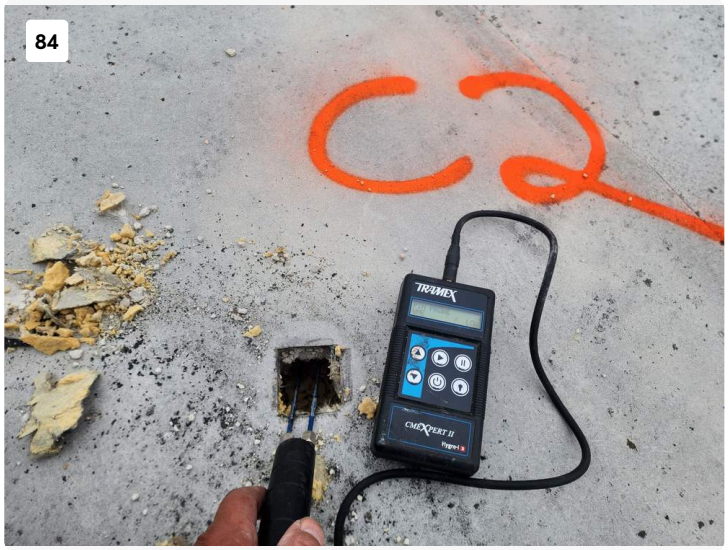
Core #2
• Core take to calibrate moisture meter to existing roof conditions and verify elevated moisture with resistance pin moisture meter.
• Low amount of moisture in top layers of insulation.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:57pm



Core #2
• Core take to calibrate moisture meter to existing roof conditions and verify elevated moisture with resistance pin moisture meter.
• Low amount of moisture in middle layers of insulation.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:57pm



Core #2
• Core take to calibrate moisture meter to existing roof conditions and verify elevated moisture with resistance pin moisture meter.
• Low amount of moisture in low layers of insulation.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:57pm

Core #2
• Core take to calibrate moisture meter to existing roof conditions and verify elevated moisture with resistance pin moisture meter.
• Subjective analysis showing dry insulation.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 12:57pm

Core #2
• Core patched with temporary repair materials. Your roofer should repair with permanent repair materials.

Project: 12/10/24 - Moisture Scan
Date: 12/10/2024, 1:05pm

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SECTION 00 4100

BID FORM

To: Merrillville Community School Corporation
6701 Delaware Street
Merrillville, Indiana 46410

Submitted By: _____.
(Company Name)

The undersigned, having familiarized themselves with the local conditions affecting the cost of the work and the Bid Documents, including the Project Manual and Construction Documents on file in the Office of the Architect, hereby propose to perform everything required to be performed and to provide and furnish all of the labor and materials, necessary tools, expendable equipment, and all utility and transportation services necessary to complete in a workmanlike manner all of the work in connection with the 2025 Roofing Projects for the Merrillville Community School Corporation 6701 Delaware Street Merrillville, Indiana 46410, all in accordance with the Bid Documents as prepared by the Architect CSK Architects, P.C., 6919 W. Lincoln Highway, Crown Point, Indiana 46307, including Addenda __,__,__, __, issued thereto for the sum stated below in accordance with the category designations listed:

BASE BID #1 – Reroofing – Merrillville High School – 30 Year Warranty

To include any and all work associated with the Reroofing – Merrillville High School – 30 Year Warranty all in accordance with the Bid Documents as Base Bid #1.

$_____

ALTERNATE BID #1 – Reroofing – Merrillville High School – 30 Year Warranty

To include any and all work associated with providing new roofing in lieu of rehabilitating the existing roof in certain areas of the Project all in accordance with the Bid Documents as called for as Alternate Bid #1. State the amount to be added to or to be deducted from Base Bid #1.

$_____

BASE BID #2 – Reroofing – Wood Elementary School

To include any and all work associated with the Reroofing – Wood Elementary School all in accordance with the Bid Documents as Base Bid #2.

$_____

BASE BID #3 – Reroofing – Miller Elementary School

To include any and all work associated with the Reroofing – Miller Elementary School all in accordance with the Bid Documents as Base Bid #3.

$_____

BASE BID #4 – Reroofing Combination Bid – Base Bids #2 & #3

To include any and all work associated with the Reroofing Combination Bid Base Bids #2 & #3 all in accordance with the Bid Documents as Base Bid #3.

$_____

In submitting this proposal, it is understood that the right is reserved by the Owner to reject any and all bids. It is agreed that this bid may not be withdrawn for a period of sixty (60) days from the opening thereof.

If awarded all of the work in either Combination Bid the undersigned agrees to substantially complete the work in ____ consecutive calendar days.

THIS BID PROPOSAL MUST BE ACCOMPANIED BY ALL REQUIRED BID DOCUMENTS AS SPECIFIED IN THE PROJECT MANUAL AND LISTED IN SECTION 00 11 53 BID AND POST BID SUBMISSION REQUIREMENTS.

Date: _____

Firm Name: _____

By: _____

Title: _____

Official Address: _____

_____

END OF SECTION

SECTION 00 4513

BIDDER'S QUALIFICATIONS

QUALIFICATIONS FOR BIDDERS

In order for a Bidder to submit a prime bid on this project, the Bidder must have completed a project of comparable size, type and complexity and must have been in business as their current licensed/incorporated entity for at least five (5) years.

Bidder's shall submit a statement with their bid acknowledging this and shall so list those projects in that statement.

The Bidder is required to maintain on a continual basis at least one (1) major trade (i.e., carpentry, masonry, etc.) with their own employees (in house). The bidder may add additional employees, as they need. The intention of this requirement is to attract bidders that are contractors capable and experienced adequately to manage, coordinate and complete the work in accordance with typically accepted and required practices of general contracting and the Bid Documents.

END OF SECTION

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SECTION 00 5200

CONSTRUCTION CONTRACT

The A.I.A. Document A101-2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a stipulated sum, 2017 Edition shall be included as part of this Specification by reference, and all parties active on the project are bonded thereto. A copy of said document is on file at the Architect's Office for review by the contractor.

END OF SECTION

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SECTION 00 7200

GENERAL CONDITIONS

The A.I.A. Document A201-2017, General Conditions of the Contract for Construction 2017 Edition, shall be included as part of this Specification by reference and all parties active on the project are bound thereto. A copy of said document is on file at the Architect's Office for review by the contractor.

END OF SECTION

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SECTION 00 7510

INDIANA'S ILLEGAL IMMIGRATION LAW

PART 1 – GENERAL

1.01 The Contractor shall comply with Indiana's Illegal Immigration Law, 2011 Senate Enrolled Act 590. The Contractor shall enroll in and verify the work eligibility status of all newly hired employees through E-verify, as that term is defined under Indiana Law. The requirement to enroll and verify the work status under E-verify shall terminate if the E-verify program ceases to exist.

1.02 The Contractor must submit with their bid a fully executed copy of the attached "Contractor's E-Verify Affidavit of Compliance with Indiana's Illegal Immigration Law".

1.03 If notified by the Owner of a violation of these provisions, the Contractor must, within thirty (30) days, remedy the breach and inform the Owner, in writing, of the actions taken to remedy. Failure to remedy within thirty (30) days can result in termination of the contract.

CONTRACTOR'S E-VERIFY AFFIDAVIT OF COMPLIANCE
WITH INDIANA'S ILLEGAL IMMIGRATION LAW

_____

COMES NOW _____ and having been first sworn
(Printed Name)

upon his or her oath does affirm under penalties of perjury that:

1. I make this affidavit upon personal knowledge.

2. This affidavit is made by me as an individual or as the authorized legal agent of the below-noted entity.

3. I, nor the below-noted entity, knowingly employ unauthorized aliens as that term is defined under Indiana law.

I hereby verify under penalties for perjury that the foregoing statement is true.

_____
(Signature)

_____
(Date)

Executed as:

An Individual ____, or

A Representative of _____
(Name of Company)

_____
(Address)

END OF SECTION

SECTION 01 1100

SUMMARY OF WORK

PART 1 GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

A. General: The work consists of furnishing all labor, materials, equipment, supplies, transportation, fuel, superintendence, temporary construction facilities, insurance, taxes, permits, fees and all other services and facilities, except as stated to be furnished by others, necessary to complete the work as called for on the plans and/or herein specified.

1.02 WORK BY OWNER

A. Items noted 'NIC' (Not in Contract), and 'by others' will be furnished and installed by the Owner or by others under separate contracts. This does not relieve the Bidder to supply all requirements of the Bid Documents when certain portions of such are noted to be furnished by others.

B. The bidder shall assist and accommodate all other contractors contracted directly with the Owner and must anticipate and accommodate their requirements during construction and scheduling.

1.03 CONTRACTOR USE OF SITE AND PREMISES

A. Project Access: The Owner does not intend on closing the facilities or portions thereof to carry out the work at each Library which must be coordinated and scheduled with the Owner.

B. Employee parking will be permitted where approved by the Owner.

C. Utility Outages and Shutdowns: Coordinate with the Owner.

1.04 PROJECT SCHEDULE

A. Assuming the bids are acceptable to the Owner the Owner intends to award the contracts at their next Board meeting on March 4, 2025.

B. Work may commence immediately after the execution of contracts along with the submission of the bidder’s Certificate of Insurance and Bonds.

C. The Owner expects the work to be completed as soon as possible.

END OF SECTION

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SECTION 01 2600

CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.01 GENERAL

A. Contract Documents: The Contract Documents include:
Project Manual
Advertisement for Bid
Bid Proposal
Contract
General Conditions
Contractor's Qualification Statement
Instructions to Bidders
Specifications and Construction Documents
Addenda
Performance Bond
Insurance Policies

For convenience of reference, this Specification is divided into various headings and sub-headings. However, such divisions do not make the Owner or Architect responsible for the limitations of the Contract of any subcontractor, each of which is dependent upon its own definite confines, regardless of Specification Divisions. Also, all items shown on the Plans must be furnished and installed even though not specifically specified or noted in the Specifications.

Perform all work required to complete the Project, as awarded, and provide and furnish all labor, tools, materials, expendable equipment, transportation, services, Permits, Fees, Bonds, Insurance and Warranties required to perform and complete in a workmanlike manner, all the work required by the Drawings and/or described in the Specifications, including all addenda as prepared by CSK Architects, P.C., 6919 W. Lincoln Highway, Crown Point, 46307.

B. Examination of Site: All Contractors are held to have examined the site and to have compared it with the Drawings and Specifications and to have satisfied themselves as to the conditions.

C. Hours of Work: The Contractors shall furnish sufficient forces to insure the execution of the work in accordance with the approved progress schedule. Work shall be performed during regular working hours. Work may be performed on night shifts, overtime, and holidays when permission to do so has been obtained from the Owner. No requirements of work other than at regular working hours shall form the basis of claims by the Contractors for additional compensation. There shall be no compensation from owner to work on overtime hours. Contractor shall include all expected overtime expenses in their bid.

D. Errors and Omissions: The Specifications, Drawings and directions furnished by the Architect are intended to cooperate and agree. The Drawings and Specifications are to be interpreted according to the true meaning, spirit and intention of the work without any extra charge whatsoever. If any discrepancies or variations appear between any of the Drawings or Specifications, such discrepancies are to be interpreted by the Architect. The contractors shall immediately notify the Architect of all such discrepancies. Architect has the right to

correct any errors or omissions in the work as necessary for proper fulfillment of their intentions for the Project. In case of discrepancies which vary in the quantity or quality, the greater quantity or quality of work shall prevail.

Anything shown on the Plans and not mentioned in the Specifications, or vice-versa, must be furnished by the respective contractor without extra compensation. Further, if any material or work is required which is absolutely necessary to carry out the full meaning and intent of the Plans and Specifications, the respective contractor hereby agrees to consider and allow for the same as fully as if they are so noted, and perform the work without extra charge or claim for extra compensation.

Drawings and Specifications shall be treated as equals. In the occurrence of discrepancies between drawings and specifications, it shall be the contractor's responsibility to notify the Architect in writing immediately upon discovery for interpretation by the Architect.

E. Contractor's Acknowledgment: The Contractor acknowledges, upon submittal of a Proposal:

1. That he understands the Bid Documents.
2. That he has the equipment, technical ability, personnel, and facilities to construct the Project in accordance with the Bid Documents.
3. That he has examined the Bid Documents and has found these sufficiently complete to prepare a sound Bid for the work contemplated.
4. That he has personally inspected the project site and verified information indicated.

F. Standards and Industry Specifications: Comply with any material or operation specified by reference to the published Specifications of a manufacturer, society, institute, association, administration, conference, council, bureau, etc. Use the requirements of the Specification or Standard listed. Those not listed herein, if any, must be current copies at time of Award of Contract.

In case of conflicts between the referenced Specifications or Standards, the one having the more stringent requirements govern. The Contractor, if requested, must furnish an affidavit from the requirements specified. Certification does not relieve the Contractor from the responsibility of complying with any added requirements specified herein.

G. Federal Construction and Safety Requirements (OSHA): All construction and safety procedures used on this Project must meet the Occupational Safety and Health Standards, National Consensus Standards, and Established Federal Standards including all requirements of the Williams-Steiger Occupational Safety and Health Act of 1970, Hornberge, Lee Occupational Safety and Health Act, Volume 36 Federal Register Number 105 Occupational Safety and Health Standards and any other requirements set by the Occupational Safety and Health Administration.

H. Other Construction and Safety Requirements: Work on this Project must comply with the requirements of any Specifications and/or Standards listed and/or organizations referred to throughout these Contract Documents.

I. Explanation of Specifications:

1. These specifications are of the abbreviated type and include incomplete sentences. Omissions of words or phrases such as "the Contractor shall", "shall be", etc., are intentional. Omitted words or phrases shall be supplied by inference in the same manner as they are when a "note" occurs on the drawings.
2. Where "as shown", "as indicated", "as detailed" or words of similar import are used, it shall be understood that reference to the drawings accompanying the specifications is made unless otherwise stated. Where "as directed", "as required", "as authorized", "as approved", "as accepted", or words of similar import are used, it shall be understood that the direction, requirement, permission, authorization, approval or acceptance of the Architect is intended unless otherwise stated. As used herein, "provide" shall be understood to mean "provided complete in place", that is, "furnished and installed".

J. No Damages for Delays:

1. An extension of time shall be the Contractor's exclusive remedy in the event of a delay, no matter how or by whom caused. Contractor further specifically acknowledges that it shall have no claim for increase in contract price or damages because of any delays whatsoever to all or any part of the work whether foreseen or unforeseen, and whether caused by any person's hindrance or active interference.

1.02 CASH ALLOWANCE

A. Costs Included in Allowances: Actual cost of product to Contractor or Subcontractor and delivery to site, less applicable trade discounts. The Contractor shall not be allowed to mark up the cost of the materials. The Contractor must substantiate actual quantities purchased and costs of the products to the Contractor with copies of paid invoices referencing the project and submit them to the Architect.

B. Costs Not Included in the Allowance: Substantiating and submitting cost estimates for selected materials, handling at the site, including unloading uncrating, and storage; protection of products from elements and from damage and labor for installation and finishing.

C. Architect Responsibilities:

1. Consult with Contractor in consideration and selection of products and suppliers.
2. Select products in consultation with Owner and transmit decision to Contractor.
3. Prepare Change Order.

D. Contractor Responsibilities:

1. Assist the Architect in selection of products and suppliers and verification of required quantities of each product and associated costs thereof.
2. Obtain proposals from suppliers and offer recommendations.
3. On notification of selection by Architect, execute purchase agreement with designated supplier.

4. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
5. Promptly inspect products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.

E. Funds will be reconciled with the specified Cash Allowances only by Change Order prior to ordering materials.

F. Cash Allowances: Refer to Specific Sections

1.03 SCHEDULE OF VALUES

A. Submit three (3) typed schedule of values on AIA Form G703 - Application and Certificate for Payment Continuation Sheet with each Application for Payment.

B. The AIA Form G703 - Application and Certificate for Payment continuation sheet shall be executed as follows:

1. The prime contractor's material supplier's name(s) and type(s) of material(s) shall be listed as a separate line item.
2. Each subcontractor's name and type of work that his contract covers shall be listed as a separate line item.
3. The subcontractor's material supplier's name(s) and type(s) of material(s) shall also be listed as a separate line item directly below the subcontractor.
4. The prime contractor's profit and overhead shall be listed as a separate line item.

C. Revise schedule to list approved Change Orders, with each Application for Payment.

1.04 APPLICATION FOR PAYMENT

A. Submit three (3) copies of each application on AIA Form G702 - Application and Certificate for Payment, submit three (3) copies of Owner Claim Form when required by the owner.

B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.

C. Progress payments: Based upon Application for Payment submitted to the architect by the Contractor and Certificates for Payment issued by the architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided in the Conditions of the Contracts as follows:

On the first day of each month 95% of the proportion of the Contract Sum properly provided and allocable to labor, materials and equipment incorporated in the work and 95% of the portion of the Contract Sum properly allocable to materials and equipment suitable stored at the site or at some other location agreed upon in writing by the parties, up to the first day of that month, less the aggregate of previous payments in each case.

Payout requests submitted in proper order and received by the Architect by the first of the month will be processed and delivered to the Owner by the 10th of the month for Owner processing.

Until final payment, the Owner will pay 95% of the amount due the Contractor on account of progress payments.

Until final payment, the Owner will withhold 5% retainage of the amount due to the contractor on account of progress payments.

On all contracts totaling $200,000.00 or more the retainage withheld by the Owner for such progress payments shall be placed in an escrow account with a bank, savings and loan institution, or the State of Indiana or an instrumentality thereof as escrow agent pursuant to an escrow agreement as provided in I.C. 1971, 5-16-5.5 and the escrow agent shall promptly invest all escrowed principal and income for the Contractor and/or according to the terms of the escrow agreement.

D. Submit three copies of AIA Form G702 - Application and Certificate for Payment for the retainage only to be withheld and placed in the escrow account.

E. Submit with final payment the following fully executed forms:
   1. AIA Form G 706 - Contractors Affidavit of Payment of Debts and Claims
   2. AIA Form G 706A - Contractors Affidavit of Release of Liens.
   3. AIA Form G 707 - Consent of Surety Company to Final Payment.

1.05 WAIVERS OF LIEN

A. Submit three (3) copies of Partial Waivers of Lien fully with each Application for Payment and Final Waivers of Lien as follows:

   1. Prime Contractor’s shall submit with each Application for Payment a Partial Waiver of Lien in full amount equal to payment amount requested.
   2. Prime Contractor’s shall submit with each Application for Payment, Partial Waivers of Lien from their material suppliers, subcontractor(s) and subcontractor's material suppliers for the previous month's payment. The Waivers of Lien shall be executed in amounts equal to the Schedule of Values of the previous payment. The Prime Contractor will not receive payment until this requirement is fulfilled.
   3. Prime Contractor’s shall submit with Final Application for Payment his Final Waiver of Lien and Final Waivers of Lien from material suppliers, subcontractors and subcontractor's material suppliers.

1.06 PAYMENT FOR MATERIALS STORED

A. Payments may be made on account for materials or equipment not incorporated in the work, but delivered and suitably stored at the site. Materials may be stored at another location other than the work site if properly identified as the property of the Owner and properly protected. Storage of material at the place of business of the vendor is not acceptable. Such payments shall be conditional upon the submission by the contractor of the following: 1) receipts marked by the supplier as paid; 2) supplier's waiver of lien listing specific materials involved; 3) invoice with copy of canceled check showing payment; or 4) such other evidence of payment as the Owner may require in lieu thereof to establish ownership of all items except those listed as miscellaneous materials below. For materials stored off site the contractor shall provide a Certificate of Insurance listing the materials insured in the Owner's name.

For the aggregate of miscellaneous stored materials for which payment is requested and above proof of payment is not available, a complete list will be provided along with the affidavit of payment for stored materials. Upon certification by the Owner's representative that the listed materials are suitably stored, payment can be made. Miscellaneous materials are defined as pipe, fittings, wire, conduit, etc., normally stored as stock items in contractor's warehouse. For materials stored other than at the construction site, applicable insurance and transportation to the site shall be provided by the contractor.

B. In no instance shall the payments exceed 95% of the net value of material or equipment stored. As stored materials are incorporated into the work, the value shall be removed from the total value of stored material requested in successive payments. Proof of ownership through one of the above methods will be required for additional materials.

1.07 ALTERNATES

A. Alternate Construction: In case the Owner accepts quantitative alternates in which certain items or building portions are omitted, the respective Contractors must construct the building and make necessary provisions to permit omitted portions to be added at a future date with minimum difficulty. Provide blind openings. Leave necessary extensions of reinforcing steel. Provide capped tees in pipes and conduits, etc.

In case qualitative alternatives are accepted, any substitute material or items used must harmonize with the intended design. The arrangement of substitute material or items must equal or exceed the quality of those specified in the Base Proposal as nearly as possible.

All cost of evaluating equipment and material proposed under the terms of these Specifications for design, quality and performance compliance incurred by the Architect, must be borne by the Contractor.

The Architect will provide the final decision as to acceptance or rejection of such alternate proposals.

For approval of products other than those specified, Bidders must submit a request in writing at least ten (10) days prior to Bid date and hour. Requests received after this time will not be reviewed or considered regardless of cause. Clearly define requests to describe the product for which approval is desired. Accompany all requests with manufacturer's literature, specifications, drawings, cuts, performance data, and list of references or other information necessary to completely describe the item. Approval by the Architect will come in the form of an Addendum to the Specifications issued to all bidders on record. The Addendum will indicate the additional products which are acceptable for this Project.

All additional costs associated with the acceptance of an alternate in order to accommodate such alternate into the design must be borne by the contractor proposing such alternate, regardless of the type of trade or construction affected.

B. Voluntary Alternates: The Bidder, at his option, may submit voluntary alternates as may be permitted in other sections of these Specifications or Bid Forms.

In Voluntary Alternates, clearly indicate the amount to be added to or deducted from the base Proposal if material or equipment other than that specified is proposed to be furnished and indicate manufacturer.

1.08 CHANGE ORDERS

A. The general contractor mark-up on change orders shall not exceed 10% for change orders under $10,000.00. For change orders exceeding $10,000.00 the general contractor's mark-up shall not exceed 10% for first $10,000.00 and shall not exceed 5% for the amount in excess of the first $10,000.00.

B. The general contractor's mark-up on change orders shall include and cover all general contractor profit, overhead, supervision, bond cost, record drawing cost, etc.

C. All change orders shall be substantiated by submission of subcontractor's proposals. Cost breakdowns requested by the Architect must be provided.

D. Change orders will be verbally approved by the Architect and the Owner on an as needed basis and the paperwork will be processed on a monthly basis. However, on a case by case basis changes may be approved more frequently at the Owner's discretion.

1.09 INSURANCE

A. Insurance Policy Requirements:

1. All insurance policies required under the terms hereof shall be executed by companies authorized to do business in the State of Indiana and proof of such authority shall be furnished to the Owner prior to the signing of the Contract. All insurance policies shall be in form and all other particulars satisfactory to the Owner.
2. The Prime Contractors shall furnish the Owner with satisfactory proof of carriage of the insurance required and shall not commence work under this Contract until he has obtained all the insurance required under this paragraph and such insurance has been approved by the Owner, nor shall the Contractor allow any Subcontractor to commence work on his subcontract until all similar insurance required of the Subcontractor has been obtained and approved.

B. Prime Contractors' Insurance:

1. <u>Compensation and Occupational Disease Insurance</u>
   a. The Contractor shall take out and maintain during the life of this contract, Workmen's Compensation and Occupational Disease Insurance, Employers Liability, for all of his employees employed at the site of the project, in full compliance with the statutes of the project, in full compliance with the statutes of Indiana applicable thereto, and, in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation and Occupation disease Insurance for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in hazardous work under this contract at the site of the project are not

protected under Workmen's Compensation statute, the Contractor shall provide and shall cause each subcontractor to provide insurance coverage equal to that provided under the Workmen's Compensation statute for the protection of his employees not otherwise protected.

b. Workmen's Compensation and Employer's Liability Insurance in amounts sufficient, in the opinion of the Contractor, the Owner, and the Architect, to protect the Owner, the Architect, the Contractor and the Subcontractors from all liability for bodily injury, sickness, or disease (including death resulting at any time therefrom) of any of their employee, including all liability or damage which may arise by virtue of any statute or law in force or which may hereafter be enacted.

2. Public Liability and Property Damage Insurance

a. Contractor shall effect and maintain during life of this Contract Commercial Public Liability including Personal Injury and Property Damage Liability Insurance (construed as including Contractor's Contingent or Protective Insurance if necessary to protect the Contractor from damage claims arising from any operation under this contract) as shall protect him and any Subcontractors performing work covered by this Contract, from claims for damage for personal injury, including accidental death, as well as from claims for property damage which may arise from operations under this Contract, whether such operations by himself or by any Subcontractor, or anyone directly or indirectly employed by either of them, and the amounts of insurance shall be as follows:

Contractor's liability insurance shall be a $1,000,000.00 Single Limit Comprehensive General Liability Insurance Policy covering all his operations on an occurrence basis with the following coverages included:

Bodily Injury Liability
Property Damage Liability
Products Liability (including contractual)(Broad Form)

General Contractor agrees to continue Completed Operations coverage for one (1) year after the work is accepted by the Owner. Commercial General Liability shall include coverage on: Premises, Operations, Independent Contractors (Protective Liability), Products and Completed Operations, Contractual Liability as may be assumed and insurable under this contract. There shall be no exclusions for special hazards under Property Damage for "c," collapse caused by grading or excavation: "u," underground property: "x," explosion or blasting.

3. Subcontractor's Public Liability and Property Damage Insurance

a. Contractor shall require each of his Subcontractors to procure and maintain during the life of his subcontract, Subcontractor's Public Liability and Property Damage Insurance of the type and of the limits specified in Subparagraph 3 above.

4. The Contractor's Commercial General Liability Insurance shall include premises – operations (including explosion, collapse and underground coverage) elevators, independent contractors, products liability,

completed operations, and blanket contractual liability on all written contracts, all including broad form property damage coverage.

5. The insurance shall name the Owner and Architect as an additional insured and shall be written for the greater of the following limits, or those required by law.

   a. Workers' Compensations
      1. State: Statutory
      2. Applicable Federal Statutory
      3. Employer's Liability $1,000,000 per Accident
         $1,000,000 Disease, Policy Limit
         $1,000,000 Disease, Each Employee

   b. Comprehensive General Liability (including Premises- Operations; Independent Contractors' Protective; Products and Completed Operations; Broad Form Property Damage)
      1. Bodily Injury: $1,000,000 Each Occurrence
         $2,000,000 Annual Aggregate
      2. Property Damage: $1,000,000 Each Occurrence
         $2,000,000 Annual Aggregate
      3. Products and Completed Operations to be maintained for two years after Substantial Completion: $5,000,000 Aggregate
      4. Property Damage Liability Insurance shall provide X, C, and U coverage
      5. Broad Form Property Damage Coverage shall include Completed Operations.

   c. Contractual Liability
      1. Bodily Injury: $1,000,000 Each Occurrence
         $2,000,000 Annual Aggregate
      2. Property Damage: $1,000,000 Each Occurrence
         $2,000,000 Annual Aggregate

   d. Personal Injury, with Employment Exclusion deleted: $2,000,000 Annual Aggregate

   e. Business Auto Liability (including owned, non-owned, and hired vehicles):
      1. Bodily Injury: $1,000,000 Each Person
         $1,000,000 Occurrence
      2. Property Damage: $1,000,000 Each Occurrence

   f. For all worker's compensation and employer's liability insurance required hereby, Contractor shall require wavier of subrogation for itself and for all subcontractors, or others performing Work on the Project pursuant to the terms of Contractor's Contract with Owner.

   g. In addition to the above, each Prime Contractor will be required to verify that he carries an Umbrella or Blanket Excess Liability insurance coverage in an amount not less than $2,000,000.00

   h. All risks of Physical Loss (including Fire and Extended Coverage). The General Contractor at his own expense shall provide fire and extended coverage insurance protection for materials and equipment belonging to the Contractor which is not to be worked into the building, and the Owner assumes no responsibility for fire and extended coverage or loss on such scaffolding, equipment or materials which are not be worked into the building. During the entire construction period, the General Contractor shall provide extinguishers of the type for the intended protection as approved

by NFPA and OSHA and shall provide such extinguisher in each construction shed and temporary office, as well as in other locations are reasonably required, and all other fire protection reasonably required, to properly protect the project, and to comply fully with the requirements of insurance underwriters for the project and municipal county and state authorities.

C. Owner Furnished Insurance

1. Owner shall effect and maintain a Special Perils Building Risk Insurance upon all work to one hundred percent (100%) of the insurable value thereof, including all items of labor and materials connected therewith in or adjacent to the structure, materials in place or to be used as part of the permanent construction. This insurance does not cover any tools owned by mechanics, any tools, equipment, scaffolding, stagings, towers, forms, etc., rented by the Prime Contractor. This insurance shall be extended to include vandalism. Each Prime Contractor will be named as an additional insured.
2. The Owner shall furnish the Contractor, if so requested, copies of the Owner Insurance policies.
3. The Owner and Contractor waive all rights against each other for damages caused by fire or other perils to the extent covered by insurance provided under this paragraph, except such rights as they may have to the proceeds of such insurance held by the Owner as trustee. The Contractor shall require similar waivers by Subcontractors and Sub-subcontractors.
4. The Owner as trustee shall have power to adjust and settle any loss with the insurance unless one of the parties in interest shall object in writing within five days after the occurrence of loss to the Owner's exercise of this power; and if such objection be made, arbitrators shall be chosen as provided in Paragraph 4.5 of General Conditions. The Owner as trustee shall in that case, make settlement with the insurers in accordance with the directions of such arbitrators. If distribution of the insurance proceeds by arbitration is required, the arbitrators will direct such distribution.
5. The Architect shall be listed as co-insured on the Builder's Risk Policy.

END OF SECTION

SECTION 01 3100

PROJECT MANAGEMENT AND COORDINATION

1.01 COORDINATION

A. The General Contractor shall have full responsibility to coordinate and expedite all phases of the work of all Contractors notwithstanding the fact that the Owner may take bids and award separate Contracts on some divisions of work. The Contractors must give sufficient notice of their work schedule to other contractors so they may have ample time to install their work.

Each and every contractor and subcontractor must afford all other contractors and subcontractors reasonable opportunity for the introduction and storage of their material and execution of their work, and properly connect and coordinate his work with theirs, and employ as far as possible such methods and means in carrying out his work as will prevent any interruptions or interference with any other Contractor's or subcontractor's work. Any defects as may develop in any other Contractor's work after the execution of this work and which could not be ascertained before this work commenced is the responsibility of the original contractor who developed the work which became defective.

B. Equipment: Verify that utility requirement characteristics of operating equipment are compatible with building utilities. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

C. Layout of Work: Thoroughly examine the construction documents and Specifications carefully checking the figured dimensions, before commencing work and report to the Architect if any error, discrepancy or defect appears. Unless otherwise directed by the Architect, the location and arrangement of the various parts of the installations must be as indicated on the construction documents. Each Contractor is responsible to make any changes necessary to pass immovable obstructions without additional cost to the Owner. Under no circumstances is any size to be decreased or any radical changes to be made in any part of the installation without the written consent of the Architect.

Each Contractor must lay out his own work. Locations, lines and grades, pipe and conduit lines, valves and other appurtenances for which no figured dimensions or elevations are given are considered approximate only. Set the Actual locations as directed at the time of the installation.

D. Mechanical and Electrical Construction documents: In addition to the Architectural Construction documents issued together with the Mechanical and Electrical Construction documents, all contractors must pay particular attention to the Mechanical and Electrical Construction documents with respect to the locations of ducts, chases, pipes, conduits, panels, fixtures, etc., as they relate to the General Construction items, such as floors, walls, partitions and ceilings.

Coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on construction documents. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs. In finished areas except as otherwise

indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.

E. Substantial Completion: Coordinate completion and clean-up of work of separate Sections in preparation for Substantial Completion.

F. Owner Occupancy: After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

G. Damage to Other Contractors: Any Contractor or subcontractor claiming damages from another Contractor or other subcontractor, or Owner on account of delay, negligence, or carelessness of other Contractors or subcontractors must make claim for same in writing at the time the damages are incurred, and within five (5) days, deliver such written claims to the Architect, to the Owner, and to the party at fault, so that such claim may be arbitrated by the Architect. Failure to act as above will render such claim null and void.

H. Trade Regulations: The Contractors agree to accord with such lawful agreements as it may have either individually, or as a member of any employer's association with trade unions, and to work in harmony with such labor unions and the representatives thereof for both his own employees and subcontractor's employees. The Contractor shall likewise take all steps to settle any differences that might arise between employees or groups thereof or trade unions as to work to be performed by any employee or member of any union.

I. Acceleration of Work: If in the Architect's judgment, it becomes necessary during the execution of the work to accelerate any of the work of any Contractor, the Architect can direct any contractor as follows:

1. Cease work at any point and transfer men to other point or points directed and execute such portions of contracted work in advance of other parts.
2. Promote the progress of any work as a whole and enable other Contractors to hasten, properly engage and carry on their work.
3. Temporarily omit such portions of any work as necessary for the advancement of the work of other contractors and then go back thereafter and execute the work left out at such a time the Architect directs. All expense involved in transfer or going back must be borne by the respective contractors who are required to cease work, transfer their men and execute portions of their work in advance of other parts to promote the progress of the work as a whole.

J. Anchor Bolts, Sleeves, Etc.: Furnish any required anchor bolts for any apparatus to be installed. Respective Contractors are to set to template those apparatus including anchor bolts, etc.

K. Where pipes, ducts, or conduits pass through walls, floors or roof, install one inch (1") or larger sleeves than required opening, consisting of sheet metal or steel pipe. Extend sleeves flush with the inside face. Provide firestopping in all openings in fire rated walls.

1.02 FIELD ENGINEERING

A. Grades, Lines and Levels: The Contractors verifies all grades, lines, levels, and dimensions indicated on the construction documents, and must report all inconsistencies before commencing work.

The Contractors must provide and maintain well-built batter boards at corners. Establish and safeguard benchmarks in at least two (2) widely separated places. As work progresses, establish benchmarks at each level and establish exact locations of partitions on rough floors as a guide to trades. Provide protection to preserve all benchmarks, reference points and lines and stakes. In the case of willful or careless destruction, the Contractor is charged with the resulting expense and responsibility for any mistakes that may be caused by unnecessary loss or disturbance.

B. Verification of Level: Data on the construction documents regarding present elevation is given solely for the assistance of Contractors developing their proposals for the cost of the work. The Owner and the Architect do not guarantee the data given. Contractors are expressly directed to verify all levels by personal inspection at the site and govern themselves accordingly.

C. Field Measurements: Each Contractor or subcontractor must obtain their own lines and grades and assume all responsibility for their accuracy. They must reconcile all measurements and conditions on the site of the proposed work.

1.03 ALTERATION PROJECT PROCEDURES

A. Materials: As specified in product Sections; match existing products and work for patching and extending work.

B. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.

C. Remove, cut, and patch work in a manner to minimize damage and to provide a means of restoring products and finishes to original condition.

D. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with a neat transition to adjacent finishes.

E. Where new work abuts or aligns with existing, perform a smooth and even transition. Patched work to match existing adjacent work in texture and appearance.

F. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.

G. Where a change of plane of 1/4 inch or more occurs, submit recommendation for providing a smooth transition for Architect review.

H. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.

I. Finish surfaces as specified in individual product Sections.

J. Sand existing floors as required to prepare them ready to receive new finish flooring/carpeting.

1.04 CUTTING AND PATCHING

A. All Contractors must notify the other trades of the location and size of openings and/or provide sleeves for openings in construction required for their work within

sufficient time as work progresses. If notified in sufficient time and/or provided with sleeves, the Contractor shall provide openings and/or install sleeves for such openings. If the Contractor is not notified in sufficient time to provide openings or install sleeves each contractor is responsible for cutting and patching in the openings for their work.

B. Cutting and patching shall be performed by the proper trades or crafts necessary for the material involved, but the cost of same shall be borne by the Contractor requiring the cutting and patching.

C. Patching shall mean the restoration of a surface or item to its original condition to match the existing adjoining surfaces unless otherwise indicated, noted, detailed or specified.

1. When patching involves painting, special coating, vinyl fabric or other applied finish, the entire surface affected (i.e., wall or ceiling) shall be refinished as a part of this requirement.

D. Cutting and patching includes cleaning of all surfaces soiled by this work.

E. Submit written request in advance of cutting or altering elements which affects structural integrity of element.

F. Identify any hazardous substance or condition exposed during the Work to the Architect.

G. Do not field cut metal deck with cutting torches without permission of the Architect.

1.05 PRECONSTRUCTION CONFERENCE

A. The Architect will schedule a preconstruction conference.

B. Attendance Required: Owner's representatives, Architect, General Contractor and all other contractors as requested by the architect.

C. Agenda:

1. Submission of list of Subcontractors for approval, list of Products for approval, schedule of values, progress schedule and critical work sequencing.
2. Designation of personnel representing the parties in Contract, and the Architect.
3. Relation and coordination of prime contractors.
4. Submittal of shop drawings, project data and samples.
5. Procedures and processing of field decisions, submittals and Change Orders.
6. Scheduling.
7. Use of premises by Owner and Contractor.
8. Major equipment deliveries and priorities.
9. Owner's requirements.
10. Construction facilities and controls provided by Owner.
11. Temporary utilities provided by Owner.
12. Security and housekeeping procedures.
13. Safety and First-Aid Procedures.
14. Procedures for maintaining record documents.

1.06 PROGRESS MEETINGS

A. The Architect shall schedule and administer progress meetings.

B. The General Contractor and all subcontractors active on the project are required to attend progress meetings with the owner's representative and architect every week, or at more frequent intervals if conditions require same, during the entire life of the project for the purpose of expediting the work and considering other matters pertaining thereto.

C. Architect's Duties:

1. Notify contractors of regular and called meeting 4 days in advance of meeting date.
2. Record minutes; include significant proceedings and decisions.
3. Type and distribute minutes of meetings to the Owner and Prime Contractors.

D. Meeting Agenda:

1. Review of Work progress.
2. Field observations, problems, and decisions.
3. Identification of problems which impede planned progress.
4. Review of submittals schedule and status of submittals.
5. Review of off-site fabrication and delivery schedules.
6. Maintenance of progress schedule.
7. Corrective measures to regain projected schedules.
8. Planned progress during succeeding work period.
9. Coordination of projected progress.
10. Maintenance of quality and work standards.
11. Effect of proposed changes on progress schedule and coordination.
12. Other business relating to Work.

E. Location: General Contractors field office or as indicated in notice.

1.07 PREINSTALLATION CONFERENCES

A. When required in individual specification Sections the Contractor shall schedule and coordinate a Pre-installation Conference at the work site prior to commencing work of the Section.

B. Require attendance of parties directly affecting, or affected by, work of the specific section or as requested by the architect.

C. Notify Architect three (3) days in advance of meeting date.

D. Review conditions of installation, preparation and installation procedures, and coordination with related work.

END OF SECTION

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SECTION 01 3300

SUBMITTALS

1.01 GENERAL

A. The contractors are fully responsible for and required to provide all submittals in a timely manner to avoid delaying construction. Contractors are requested to provide submittals electronically as much as possible.

B. The Architect shall be held harmless for the contractor's failure to provide submittals, provide them in a timely manner or for their accuracy.

1.02 SUBMITTAL PROCEDURES

A. The Contractor shall prepare, review, stamp with his approval, and submit all shop drawings, and other submittals electronically when possible to the Architect for all products and equipment to be incorporated into the project.

B. The Contractor shall submit all samples and other submittals that cannot be submitted electronically to the Architect for all products and equipment to be incorporated into the project.

C. Identify Project, Contractor, Subcontractor or supplier; pertinent Drawing sheet and detail number(s), and specification Section number, as appropriate.

D. Apply Contractor's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.

E. Coordinate submission of related items and schedule submittals to expedite the Project.

F. Contractor must identify on the submittals variations from the Contract Documents, specified Products or system limitations which may be detrimental to successful performance of the completed Work.

G. Revise and resubmit submittals as required, identify all changes made since previous submittal.

H. The contractor shall distribute copies of reviewed submittals to concerned parties and instruct parties to promptly report any inability to comply with provisions.

1.03 SUBCONTRACTOR'S LIST

A. Each contractor submitting a prime bid shall submit a complete list of all subcontractors to be awarded contracts on the project within 24 hours of bid due date and time. The list shall list only one subcontractor for each work category. The contractor's bid may be rejected if the subcontractor's list is not submitted as requested. The successful bidder's award of subcontractor's contracts shall not deviate from the subcontractor's list as submitted unless approved by the Owner.

1.04 SCHEDULE OF VALUES

A. Each successful bidder shall submit their Schedule of Values for approval on AIA Form G703 - Application and Certificate for Payment Continuation Sheet within 15 days of execution of construction contract.

B. The Schedule of Values shall be executed under provisions of Specification Section 01 2600 – Contractor Considerations, Item 1.03 "Schedule of Values".

1.05 CONSTRUCTION PROGRESS SCHEDULES

A. Submit to the Architect and the Owner within 10 days after date of Owner-Contractor Agreement an initial Progress Schedule.

B. Revise and resubmit as required.

C. Submit revised schedules with each Application for Payment, identifying changes since previous version.

D. Submit a horizontal bar chart with separate line for each section of Work, identifying first workday of each week.

E. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, duration and critical activities.

F. Indicate estimated percentage of completion for each item of Work at each submission.

1.06 PROPOSED PRODUCTS LIST AND SUBMITTAL LOG

A. Within 10 days after date of Owner-Contractor Agreement, submit a Submittal Log as well as a complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.

B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards for approval.

1.07 SHOP DRAWINGS

A. Submit Shop Drawings for all manufactured products and all shop of field fabricated items.

B. Shop Drawings shall mean drawings indicating in detail all pertinent information of the item being depicted.

1. Advertising brochures will not be accepted as Shop Drawings.
2. Erection and setting drawings and schedules are considered Shop Drawings and shall be submitted along with detailed Shop Drawings.
3. Shop Drawings and schedules shall repeat the identification shown on the contract drawings; sheet number, detail number, room number and specification section and article number.
4. Shop drawings shall be submitted only on sheets 8-1/2" x 11" or of a size corresponding to the construction documents.

5. Note variances from the Contract Documents. Failure to do so will void any claim by the contractor against the Owner based upon submittals being approved by the Architect.

C. Shop Drawings, Product Data and Samples submitted to the Architect by the Contractor shall bear the Contractor's approval stamp indicating that: 1) he has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents, and 2) there are no material changes or deviations from the contract documents. Failure of the contractor to accurately review Shop Drawings which results in additional review by the Architect may result in back charge to the contractor for the Architects additional review time.

D. Submit one copy of all submittals. The Architect will return one copy of the approved shop drawings to the Contractor and Owner. All copies submitted electronically will be returned electronically. The Architect will retain one copy. Submit shop drawings to Architect a minimum of (15) fifteen days prior to date contractor requires them back and note date that contractor requires approved Shop Drawings returned on contractor transmittal.

E. Architects review of shop drawings is for design only and is subject to all conditions of the contract documents. This review is not for quantities or dimensions. The contractor is responsible for all dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades. Any additional cost incurred by the contractor resulting from failure of the contractor to field verify dimension are solely the responsibility of the said contractor.

F. Architect’s Drawings: Copies of the Architect’s CADD drawings may be obtained from the Architect for use by the General Contractor and their direct subcontractors solely for the purpose of coordination and expediting of work for shop drawings or layout work and not for any other purpose.

1.08 PRODUCT DATA

A. Submit product data for all manufactured items.

B. Product data includes manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data.
1. Clearly mark each copy to identify pertinent materials, products or models and contract document identification; sheet number, detail number, room number and specification section and article number.
2. Submit only pages, which are pertinent.
3. Show dimensions and clearances required for maintenance and service.
4. Show performance characteristics, capacities and reference standards.
5. Show wiring and piping diagrams, controls and finishes.
6. Provide manufacturer's preparation, assembly, and installation instructions.
7. Note variances from the contract documents including manufacturer's recommended changes to sequencing and to piping and control diagrams.
8. Supplement manufacturers' standard data to provide information unique to this Project.

C. Submit one copy of all submittals. The Architect will return one copy each of the approved shop drawings to the Contractor and Owner. All copies submitted electronically will be returned electronically. The Architect will retain one copy. Submit shop drawings to Architect a minimum of (15) fifteen days prior to date

contractor requires them back and note date that contractor requires approved Shop Drawings return on contractor transmittal.

1.09 SAMPLES

A. Submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.

B. Submit samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for Architect's selection.

C. Include identification on each sample, with full Project information.

D. Submit the number or samples specified in individual specification Sections one of which will be retained by Architect/Engineer.

E. Reviewed samples which may be used in the Work are indicated in individual specification Sections.

1.10 MANUFACTURER'S INSTRUCTIONS

A. When specified in individual specification Sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.

B. Identify conflicts between manufacturers' instructions and Contract Documents.

C. Architect will take no action on these submittals.

1.11 MANUFACTURER'S CERTIFICATES

A. When specified in individual specification Sections, submit manufacturers' certificate to Architect for review, in quantities specified for Product Data.

B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference date, affidavits, and certifications as appropriate.

C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Architect.

D. Architect will take no action on these submittals.

END OF SECTION

SECTION 01 4500

QUALITY CONTROL

1.01 QUALITY ASSURANCE/CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply fully with manufacturers' instructions, including each step in sequence.

C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.

D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Perform work by persons qualified to produce workmanship of specified quality.

F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.02 REFERENCES

A. Conform to reference standard by date of issue current on date of Contract Documents.

B. Obtain copies of standards when required by Contract Documents.

C. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.

D. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.03 FIELD SAMPLES

A. Install field samples at the site as required by individual specifications Sections for review.

B. Acceptable samples represent a quality level for the Work.

C. Where field sample is specified in individual Sections to be removed, clear area after field sample has been accepted by Architect.

1.04 MOCK-UP

A. Assemble and erect specified items, with specified attachment and anchorage devices, flashings, seals, and finishes.

B. Where mock-up is specified in individual Sections to be removed, clear area after mock-up has been accepted by Architect.

1.05 INSPECTION AND TESTING LABORATORY SERVICES

A. Owner will employ and pay for services of an Independent Testing Laboratory acceptable to Architect, to perform specified services and testing.

1. Contractor shall cooperate with the laboratory to facilitate the execution of its required services.
2. Employment of the laboratory shall in no way relieve Contractor's obligations to perform the Work of the Contract.

B. The Testing Laboratory will perform inspections, tests, and other services specified in individual specification Sections and as required by the Architect.

C. Five copies of written reports will be promptly submitted by the Testing Laboratory to the Architect, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents. Each report shall include:

1. Date issued.
2. Project title and number.
3. Testing laboratory name, address and telephone number.
4. Name and signature of laboratory inspector.
5. Date and time of sampling of inspection.
6. Record of temperature and weather conditions.
7. Date of test.
8. Identification of product and specification section.
9. Location of sample or test in the project.
10. Type of inspection or test.
11. Results of tests and compliance with Contract Documents.
12. Interpretation of test results, when requested by Architect.

D. The Testing Laboratory is not authorized to:

1. Release, revoke, alter or enlarge on requirements of Contract Documents.
2. Approve or accept any portion of the Work.
3. Perform any duties of the Contractor.

E. Contractor's Responsibilities:

1. Cooperate with laboratory personnel, provide access to Work, to manufacturer's operations.
2. Secure and deliver to the laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.
3. Provide to the laboratory the preliminary design mix proposed to be used for concrete, and other material mixes which require control by the testing laboratory.
4. Furnish copies of products test reports as required.
5. Furnish incidental labor and facilities:
   a. To provide access to work to be tested.
   b. To obtain and handle samples at the Project site or at the source of the product to be tested.
   c. To facilitate inspections and tests.
   d. For storage and curing of test samples.

6. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
   a. When tests or inspections cannot be performed after such notice, reimburse Owner for laboratory personnel and travel expenses incurred due to Contractors negligence.
7. Make arrangements with laboratory and pay for additional samples and tests required for Contractor's convenience.
8. Employ and pay for the services of a separate, qualified, independent testing laboratory to perform additional inspections, sampling and testing required when initial tests indicate work does not comply with Contract Documents.

1.06 MANUFACTURERS' FIELD SERVICES AND REPORTS

A. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance of equipment as applicable, and to initiate instructions when necessary.

B. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

C. Submit report in triplicate within 30 days of observation to Architect for review.

END OF SECTION

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SECTION 01 5000

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

1.01 ROOFING

A. The Roofing Contractor shall be responsible for arranging for and providing all construction facilities and temporary controls as specified herein and as required for the proper and expeditious prosecution of the work unless specified otherwise. The Roofing Contractor shall pay all costs for such facilities and controls unless otherwise specified, until date of substantial completion of project.

1.02 TEMPORARY ELECTRICITY

A. Electric service is existing: connect to existing power service. Power consumption shall not disrupt owner's need for continuous service. Owner will pay cost of energy used. Exercise measures to conserve energy.

B. Provide temporary power distribution at 120/240 volt, single phase, 3-wire, 60 cycle, A.C. The termination of power distribution shall be at a central location on each floor of the building, as directed. Terminations shall be provided for each voltage supply complete with circuit breakers; disconnect switches and other devices as required to protect the existing power system. Convenience outlets for fractional horsepower tools such as saws, drills, etc., and extension cords shall be located at convenient points on each floor or in each working area in such quantity as to permit 50-foot maximum extension cords to be used. Each outlet shall have two 120 volt, 20 ampere, 3-wire grounded duplex receptacles.

C. If subcontractors require special electric power for facilities beyond that provided for herein for such items as large pumps, welding machines, special hoists, etc., they shall arrange and pay for the installation of such facilities and arrange for the payment of any additional cost thereof.

D. All temporary equipment and wiring for power and lighting shall be in accordance with the applicable provisions of the governing codes. All temporary wiring shall be maintained in a safe manner and utilized so as not to constitute a hazard to persons or property.

1.03 TELEPHONE SERVICE

A. The Roofing Contractor shall provide cell phone accessibility for their onsite Project Manager.

1.04 TEMPORARY SANITARY FACILITIES

A. The Roofing Contractor shall provide suitable and adequate temporary toilet facilities for entire work force of all contractors on site. The number and type of such facilities shall conform to labor work rules, governing codes and health requirements. Unless otherwise required, portable chemical toilets shall be serviced twice weekly, service to include emptying tanks, recharging with a germicidal and deodorizing solution and scrubbing entire interior with a germicidal solution.

1.05 TEMPORARY FIRE PROTECTION

A. The Roofing Contractor shall prohibit all lighting of fires about the premises and all smoking in restricted areas where posted with "NO SMOKING" signs and shall use due diligence to see that such prohibition is enforced. "NO SMOKING" signs shall be furnished and posted by the Roofing Contractor in locations subject to Architect's approval.

B. The Roofing Contractor will provide the Roofing temporary fire protection requirements. Subcontractors will be responsible for their own specialty requirements. Permanent fire protection equipment used for fire protection during construction shall be the responsibility of the installing contractor.

C. No debris or waste materials shall be burned at the construction site.

D. It shall be the responsibility of the Roofing Contractor to notify the Architect in advance of the work when welding or other fire hazardous work is to be performed so that proper precautionary measures may be taken to prevent fire.

E. Stove heaters in temporary offices and sheds shall be properly installed to protect combustible walls, floors and roof.

1.06 CONSTRUCTION AIDS

A. Each Contractor and Subcontractor shall provide all their own temporary ladders, ramps, runways, stairs, scaffolding, staging, temporary enclosures, hoists, rubbish chutes, etc., as may be required for performance of the Work.

B. All construction aids shall comply with Federal, State and local laws and regulations.

C. Temporary Enclosures:

1. The Roofing Contractor shall provide temporary partitions and ceilings as required to separate work areas from Owner occupied areas, to prevent penetration of dust and moisture into Owner occupied areas, and to prevent damage to existing materials and equipment. Construction shall be of framing and plywood sheet materials and visqueen with closed joints and sealed edges at intersections with existing surfaces.

D. Temporary Hoists: Each Contractor shall provide his own cranes, hoists, towers, and other lifting devices necessary for the proper and efficient movement of his materials. Provide operating personnel for equipment as required. Provide equipment with proper guys for bracing and other safety devices as required by Federal, Local and State codes. Remove towers and hoisting equipment when they are no longer needed, or as directed.

E. Trash: The Roofing Contractor will be responsible for providing trash dumpsters and/or receptacles if required. The Roofing Contractor will be responsible for collecting and depositing his debris in such trash receptacles. The Roofing Contractor will be responsible for coordination of trash removal. Trash and debris shall not be allowed to accumulate. Subcontractors at the direction of the Roofing Contractor, shall collect and remove their own liquid waste and solid waste from the job site at periodic intervals so as not to hinder the overall progress of construction.

1.07 BARRIERS

A. Each Prime Contractor shall provide and maintain required barricades, protection and warning lights in good condition until the completion of the part of the Work requiring such protection and then remove same. Each Contractor shall be responsible for all acts and operations of his employees or subcontractors including the neglect or failure to take proper safety precautions, and for all damages to persons or property in consequence of neglect or failure to take the necessary or required precautions.

B. All barriers shall comply with Federal, State, and local laws and regulations.

C. The Roofing Contractor shall limit his material and equipment storage, work preparation and management activities to area indicated on the Construction Documents, and he shall move his equipment and materials when so directed by Architect. No material or equipment shall be stored on adjoining or adjacent property.

D. If it becomes necessary at any time during the execution of the work to move materials temporarily located and to be used in the final construction, the Contractor furnishing said materials, when so directed by the Architect, must move them or cause them to be moved. Include the cost of moving these materials in the Contract Sum for the work involved.

E. The Roofing Contractor shall provide a 6’ high chain link temporary construction fence with gates as needed around the entire project site.

1.08 WATER CONTROL

A. Roofing Contractor shall make every attempt to keep the interior of the building dry.

1.09 TEMPORARY CONTROLS

A. The Roofing Contractor shall conform to the requirements of Federal, State and local codes and authorities with regard to noise, dust, pest and pollution control.

B. Materials and equipment shall be properly stored in accordance with the manufacturer's recommendations and in limited quantities so as not to overload the construction.

C. Materials shall be adequately covered, protected, and secured to avoid being blown around.

1.10 TRAFFIC REGULATIONS AND TEMPORARY DRIVES

A. The Roofing Contractor shall be responsible for conforming to local regulations governing load limits of vehicles.

B. The Roofing Contractor shall be responsible for regulating his traffic around the site in accordance with local regulations including parking and flagmen.

C. The Roofing Contractor shall provide and maintain all necessary temporary crushed stone drives and parking areas as required for construction.

D. All temporary drives shall be removed by the Roofing Contractor upon project completion or as the Roofing Contractor deems necessary.

1.11 PROTECTION OF INSTALLED WORK

A. The installing contractor is responsible to provide protection for his/her work and shall provide special protection where specified in individual specification Sections.

B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to minimize damage.

C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

F. Prohibit traffic from landscaped areas.

1.12 SECURITY

A. Provide security and facilities to protect work, and existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

1.13 PARKING

A. Parking areas shall be designated by the Owner or Architect.

1.14 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.

D. Remove waste materials, debris, and rubbish from site and dispose off-site.

1.15 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.

B. Clean and repair damage caused by installation or use of temporary work.

C. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

1.16 PROVISIONS FOR CONTRACTOR EMPLOYEES

A. It is required that all construction employees comply with the following rules.

1. Construction employees to use only their own toilet facilities.
2. No employees are to eat in the occupied premises.
3. There is to be no smoking within the building.
4. All construction personnel will conduct themselves in an unimpeachable manner while on the construction site, including proper language, etc.
5. No radios, TV's or musical instruments at site unless approved by owner.
6. No drinking of alcoholic beverages.

1.17 SITE SIGNAGE

A. Unless specified otherwise, there will be no signs posted at the job site except as called for on the drawings or in the specifications or as required by applicable codes and regulations. Placement of contractor signage shall only be allowed at the review and discretion of the Owner.

END OF SECTION

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SECTION 01 6600

PRODUCT STORAGE AND HANDLING REQUIREMENTS

1.01 PRODUCTS

A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.

B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.

C. Provide interchangeable components of the same manufacturer, for similar components.

1.02 TRANSPORTATION AND HANDLING

A. Transport and handle products in accordance with manufacturer's instructions.

B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.03 STORAGE AND PROTECTION

A. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate controlled enclosures.

B. For exterior storage of fabricated products, place on sloped supports, above ground.

C. Provide off-site storage and protection when site does not permit on-site storage or protection.

D. Cover <u>all</u> products to be installed within building with impervious sheet covering. Provide ventilation to avoid condensation.

E. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.

F. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

G. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

1.04 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: For approval of products other than those specified, Bidders must submit a request in writing at least ten (10) days prior to Bid date and hour. Requests received after this time will not be reviewed or considered regardless of cause. Clearly define requests to describe the product for which approval is desired. Accompany all requests with manufacturer's literature, specifications, drawings, cuts, performance data, and list of references or other information necessary to completely describe the item. All requests must indicate in detail all deviations of proposed products from those specified. Approval by the Architect will come in the form of an Addendum to the Specifications issued to all bidders on record. The Addendum will indicate the additional products which are acceptable for this Project.

All additional costs associated with the acceptance of an alternate in order to accommodate such alternate into the design must be borne by the contractor proposing such alternate, regardless of the type of trade or construction affected.

END OF SECTION

SECTION 01 7400

CLEANING AND WASTE MANAGEMENT

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work includes: The following is required of each contractor unless otherwise specified.

1. Each contractor:

a. Maintain premises and adjacent properties free of waste, debris and rubbish caused by construction operations.

b. At completion of work, or at such other times as directed by the Architect, remove all waste, debris, rubbish, tools, equipment, machinery and surplus materials. Clean all sight-exposed surfaces; leave work clean and ready for occupancy.

c. At the completion of his work, each Contractor must remove all his own tools, scaffoldings, and surplus materials and must leave work area "broom clean". In the case of dispute over who does the cleaning, the Owner may remove the rubbish and charge the cost to the several Contractors as the Architect determines to be just.

B. When any work is completed and prior to final cleaning, the respective equipment manufacturers or Contractors shall carefully adjust all parts of their equipment and systems.

1.02 SAFETY REQUIREMENTS

A. Standards: Maintain project in accordance with established safety and insurance standards.

B. Hazards Control:

1. Store volatile wastes in covered metal containers and remove from premises daily.

2. Prevent accumulation of wastes which create hazardous conditions.

3. Provide adequate ventilation during use of volatile or noxious substances.

C. Conduct cleaning and disposal operations to comply with Federal, State and local anti-pollution laws.

1. Rubbish and waste materials shall not be burned or buried on project site.

2. Volatile wastes such as mineral spirits, oil or paint thinner shall not be disposed of into storm or sanitary drains.

3. Wastes shall not be disposed of into streams or waterways.

1.03 SUBMITTALS

A. Manufacturer's recommendations for cleaning specified products.

B. Proposed cleaning agents for those products whose manufacturers do not recommend a cleaning agent.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Select and use all cleaning materials and equipment with care to avoid scratching, marring, defacing, staining or discoloring surfaces cleaned.

B. Use only cleaning materials recommended by manufacturer of surface to be cleaned.

C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

PART 3 - EXECUTION

3.01 GENERAL

A. Execute cleaning to ensure that building(s), grounds and public properties are maintained free from accumulations of waste materials and rubbish.

B. Wet down material and rubbish to lay dust and to prevent blowing dust.

C. Twice weekly, during progress of work, clean site and public properties and dispose of waste materials, debris and rubbish.

D. Provide on-site transportable cart containers for collection of waste, materials, debris and rubbish as required.

E. Remove waste materials, debris and rubbish from site and legally dispose of at public or private dumping areas off Owner's property.

F. Handle materials in a controlled manner with as few handlings as possible. Materials shall not be thrown from heights.

END OF SECTION

SECTION 01 7700

CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 USE OF COMPLETED PORTIONS OF THE WORK

A. Upon completion of the entire work the Owner may take over the buildings for occupancy and occupy and use same thereafter. Furthermore, if any spaces in the buildings are sufficiently completed that they can be occupied and used by the Owner in advance of completion of other unfinished work on the buildings and the Owner's occupancy or use of such spaces would not unduly interfere with the Contractor's subsequent work of the job, the Owner shall be allowed to occupy and use such space or spaces pending completion of the entire work.

B. It shall be understood however, that the Owner's occupancy or use of such spaces in the buildings shall not constitute the Owner's acceptance of any work or materials nor to relieve the Contractor from his obligations or responsibilities under the contract.

C. In the event the Owner occupies space or spaces in the buildings pending completion of the entire work as provided, the Contractor shall cooperate with the Owner in making available for the Owner's use such building services as heating, lighting, telephone, etc., for the space or spaces so occupied and if the equipment required to furnish such services not entirely completed at the time the Owner desires to occupy the aforesaid space or spaces the Contractor shall make every effort to complete same as soon as possible to the extent that the necessary equipment can be put into operation or use. In each case where the Owner takes over space in the buildings for occupancy or use, the Owner shall give the Contractor notice in writing of his taking over the space of spaces involved.

1.02 CLOSEOUT PROCEDURES

A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Architect's inspection.

B. Provide submittals to Architect that are required by governing or other authorities.

C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

D. Apply for and secure an occupancy certificate from the local governing body and submit to the Owner.

1.03 ADJUSTING

A. Adjust operating Products and equipment to ensure smooth and unhindered operation.

1.04 PROJECT RECORD DOCUMENTS

A. Maintain on site, one set of the following record documents; record actual revisions to the Work:

1. Contract Drawings.
2. Specifications.
3. Addenda.
4. Change Orders and other Modifications to the Contract.
5. Reviewed shop drawings, product data, and samples.

B. Store Record Documents separate from documents used for construction.

C. Record information concurrent with construction progress. Progress payments will not be approved if the Record Documents are not kept current with construction.

D. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:

1. Manufacturer's name and product model and number.
2. Product substitutions or alternates utilized.
3. Changes made by Addenda and Modifications.

E. Record Documents and Shop Drawings: Legibly mark each item to record actual construction including:

1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
3. Field changes of dimension and detail.
4. Details not on original Contract Drawings.

F. Delete Architect title block and seal from all documents.

G. Submit one (1) set of prints to Architect with claim for final Application for Payment.

H. The contractor shall provide Record Drawings on disc in current AutoCad format for the entire project.

I. Contractor must maintain Record Drawings current with the construction process in order to receive monthly progress payments.

1.05 OPERATION AND MAINTENANCE DATA

A. Submit one (1) set prior to final inspection, bound in 8-1/2 x 11 inch text pages, three D side ring capacity expansion binders with durable plastic covers. Provide an electronic copy on a flash drive as well.

B. Prepare binder covers with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required.

C. Internally subdivide the binder contents with permanent page dividers, and logically organized.

1.06 SPARE PARTS AND MAINTENANCE MATERIALS

A. Provide products, spare parts, maintenance and extra materials in quantities specified in individual specification Sections.

B. Deliver to Project site and place in location as directed; obtain receipt prior to final payment.

END OF SECTION

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SECTION 02 4116

STRUCTURE DEMOLITION

PART 1 GENERAL

1.01 WORK INCLUDED

A. Demolish all existing construction that is necessary to complete the project.

B. Remove materials from site.

1.02 SUBMITTALS

A. Submit demolition and removal procedures and schedule under provisions of Division 1.

B. Submit record documents under provisions of Division 1.

C. Secure all required permits for work.

1.03 EXISTING CONDITIONS

A. Conduct demolition to minimize interference with adjacent surfaces.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.01 PREPARATION

A. Prevent movement or settlement of adjacent structures. Provide bracing and shoring.

3.02 EXECUTION

A. The use of gas powered tools is not permitted.

B. Demolish appurtenances in an orderly and careful manner.

C. All items and systems noted on the drawings to be removed shall be removed in their entirety including all caulking, hangers and fasteners.

D. All surfaces exposed by the demolition process that will be left exposed shall be cleaned, patched and finished.

E. Cease operations and notify Architect immediately if adjacent surfaces appear to be endangered. Do not resume operations until corrective measures have been taken.

F. Except where noted otherwise, immediately remove demolished material from site.

G. Relics, antiques, and similar objects remain the property of the Owner. Notify Architect immediately prior to removal and obtain acceptance regarding method of removal.

H. Remove materials to be re-installed or retained in manner to prevent damage. Store and protect under provisions of Division 1.

I. Remove and promptly dispose of contaminated, vermin infested, or dangerous materials encountered. Comply with governing regulations.

J. Do not burn or bury materials on site.

K. Storage or sale of removed materials will not be permitted on the site.

L. Owner has the right to claim any salvageable materials or equipment. Contractor will take possession of all salvageable materials and equipment which the Owner refuses and remove from the site.

END OF SECTION

SECTION 07 0150

MAINTENANCE CLEANING OF MEMBRANE ROOFING

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Pressure washing of roof membrane including membrane flashings, with full water reclamation.

1.02 QUALITY ASSURANCE

A. Operator Qualifications: Trained and approved by manufacturer of cleaning equipment, with a record of successful roofing membrane cleaning.

B. Regulatory Requirements: Comply with governing EPA regulations. Comply with hauling and disposal regulations of authorities having jurisdiction.

1.03 PROJECT / FIELD CONDITIONS

A. Owner will occupy portions of building immediately below roof area to be maintained. Conduct operations so Owner's operations are not disrupted. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.

B. Protect building to be cleaned, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from maintenance operations.

C. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.

PART 2 - PRODUCTS

2.01 CLEANING SYSTEM OPERATORS

A. Source Limitations: Engage a qualified roofing maintenance cleaning firm to perform cleaning of membrane roofing.

B. Approved Operators: Beachwood OH, (800) 562-2728, Tremco, Inc., RoofTec Cleaning Systems.

2.02 PERFORMANCE REQUIREMENTS

A. Water Reclamation: Provide maintenance cleaning of membrane roofing that provides 100 percent reclamation of cleaning water and complies with applicable provisions of the US EPA National Pollutant Discharge Elimination System (NPDES) program and requirements of local authorities having jurisdiction.

2.03 MATERIALS

A. Pre-cleaning Treatment: Detergent-free.

1. Product: Tremco, Inc., RoofTec PREKLEEN.

B. Pressure Wash Cleaning Solution: VOC, detergent, phosphate, and surfactant free.

1. Product: Tremco, Inc., RoofTec RENEW Cleaner.

PART 3 - EXECUTION

3.01 PREPARATION

A. Comply with warranty requirements of existing roof membrane manufacturer.

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. Immediately notify Owner of any blockages or restrictions.

D. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work. Cover air-intake louvers before proceeding with maintenance cleaning work that could affect indoor air quality or activate smoke detectors in the ductwork.

E. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors.

3.02 MAINTENANCE CLEANING OF ROOF MEMBRANE

A. Pretreat membrane and flashings when recommended by cleaning equipment manufacturer based upon site assessment of membrane condition.

B. Apply pressure wash cleaning solution onto membrane and flashing surfaces.

C. Pressure wash membrane and flashings using equipment and methods recommended in writing by cleaning equipment manufacturer for specific application. Utilize rotating wash head equipment operated at not less than 2,000 psi. Use equipment utilizing vacuum removal of wash water and residues.

3.03 DISPOSAL

A. Collect cleaning water and associated cleaning compounds and residual material and process to meet US EPA and local environmental requirements for legal discharge.

END OF SECTION

SECTION 07 3113

ASPHALT FIBERGLASS SHINGLES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Granular surfaced asphalt fiberglass shingle roofing.

B. Moisture shedding underlayment, eave, valley and ridge protection.

C. Associated metal flashings.

1.02 SUBMITTALS

A. Submit under provisions of Division 1.

B. Product Data: Provide data indicating material characteristics, performance criteria, limitations and color selections.

C. Manufacturer's Installation Instructions: Indicate preparation required and installation procedures.

D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.03 REGULATORY REQUIREMENTS

A. Conform to Federal Specifications SS-S-294 A Type I and SS-S-001534 Class A, Type I.

1.04 ENVIRONMENTAL REQUIREMENTS

A. Refer to special application instructions published by Johns-Manville when temperatures average 25° F or less.

PART 2 PRODUCTS

2.01 MANUFACTURERS – ASPHALT FIBERGLASS SHINGLES

A. Shingles: CertainTeed

B. Ice Dam Protection - W.R. Grace.

C. Substitutions: Under provisions of Division 1

2.02 ASPHALT FIBERGLASS SHINGLES

A. Asphalt Fiberglass Shingles: CertainTeed Landmark Pro - Lifetime Limited Warranty: ASTM D3462/3018 Type 1, Class A - Self Sealing, UL Rating of A and Wind Resistance Label, two glass fiber mat base, mineral granule surface type; color selected by Architect.

2.03 SHEET MATERIALS

A. Roll Roofing: Matching shingles mineral surface and all other properties.

B. Eave/Ice Dam Protection: CertainTeed's Wintergaurd Granular Waterproofing Shingle Underlayment.

C. Underlayment: CertainTeed's DiamondDeck high-performance Synthetic Roofing Underlayment.

2.04 ACCESSORIES

A. Ridge Vent: Certainteed Rolled Roof Vent – Filtered Rolled Ridge Vent.

B. Nails: Hot dipped galvanized steel sharp pointed roofing nails - 11 to 12 gauge, with approximately 3/8" diameter head; nails shall penetrate through roof sheathing.

2.05 FLASHING FABRICATION

A. Form flashings to profiles indicated on Drawings, and to protect roofing materials from physical damage and shed water.

B. Form sections square and accurate to profile, in maximum possible lengths, free from distortion or defects detrimental to appearance or performance.

C. Hem exposed edges of flashings minimum 1/2 inch on underside.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing site conditions under provisions of Division 1.

B. Verify that roof penetrations and plumbing stacks are in place and flashed to deck surface.

C. Verify roof openings are correctly framed prior to installing work of this Section.

D. Verify deck surfaces are dry, free of ridges, warps, or voids.

3.02 PREPARATION

A. Broom clean deck surfaces under eave protection, underlayment, and insulation.

3.03 INSTALLATION - UNDERLAYMENT

A. Place one ply of underlayment over roof deck with ends and edges lapped 2 inches. Stagger end laps of each consecutive layer.

3.04 INSTALLATION – EAVE ICE DAM PROTECTION

A. Apply rubberized asphalt/polyethylene sheet eave protection in accordance with manufacturer's instructions over the entire roof.

3.05 INSTALLATION – METAL FLASHING

A. Weather lap joints minimum 2 inches and seal weather tight with plastic cement.

B. Secure in place with nails at 8 inches oc. Conceal fastenings.

C. Flash and seal work projecting through or mounted on roofing with plastic cement, weather tight.

3.06 INSTALLATION – ASPHALT SHINGLES

A. Install shingles in accordance with manufacturer's instructions.

B. Place shingles in straight coursing pattern with 5 inch weather exposure to produce double thickness over full roof area.

C. Project first course of shingles 1/4 inch beyond fascia boards.

D. Extend shingles 1/4 inch beyond face of gable edge fascia boards.

E. Cap hips and ridges with individual shingles, maintaining 5 inch weather exposure. Place to avoid exposed nails. Install ridge vents as shown on the drawings. Install ridge shingles over ridge vent.

F. Extend shingles on both slopes across valleys in a weave pattern and fasten. Extend shingles a minimum of 12 inches beyond valley center line to achieve woven valley, concealing the valley protection.

G. Coordinate installation of roof mounted components or work projecting through roof with weather tight placement of counter flashings.

H. Complete installation to provide weather tight service.

3.07 GUARANTEE

A. All work shall be done in such a manner as to guarantee neat appearance, and weather tightness.

B. The roof shingles shall have the manufacturer’s lifetime limited transferable warranty, 50-year limited transferable warranty against manufacturing defects, 15-year StreakFighter algae-resistance warranty, 10-year SureStart protection,10 year 130 MPH Wind warranty which requires CertainTeed starter, hip and ridge materials. Warranties will be delivered to the Owner upon completion of the roofing.

C. The installing Contractor shall guarantee and maintain all roofing for a period of five (5) years after installation in a leak-free condition.

3.08 PROTECTION OF FINISHED WORK

A. Protect finished Work under provisions of Division 1.

B. Do not permit traffic over finished roof surface.

3.09 CLEAN-UP

A. Contractor shall remove his debris from the site.

END OF SECTION

SECTION 07 5423

THERMOPLASTIC SHEET ROOFING

PART 1 GENERAL

1.01 WORK INCLUDED

A. Removal of the existing roofing and insulation down to the existing metal deck.

B. Rhino-Bonded PVC sheet membrane roofing.

C. Rigid roof insulation.

D. Flashings.

1.02 SYSTEM DESCRIPTIONS

A. Roof system is a single ply PVC membrane rhino-bonded to mechanically fastened two layers of 2” rigid insulation to the existing metal roof deck.

1.03 SUBMITTALS

A. Submit under provisions of Division 1.

B. Warranty: Submit a copy of the manufacturer’s warranty prior to commencement of any work.

C. Product Data: Provide membrane and all accessories.

D. Manufacturer's Installation Instructions: Indicate special precautions required for seaming the membrane.

E. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.04 QUALITY ASSURANCE

A. Membrane Manufacturer: Company specializing in sheet roof membranes with 5 years’ experience.

B. Applicator: Company specializing in installation of sheet roofing membranes with 5 years documented experience, approved by membrane manufacturer.

C. Roof manufacturer's representative must make site inspections during the installation in order to assure compliance with the manufacturer's standards.

D. Work of this Section to conform to NRCA Roofing and Waterproofing Manual and manufacturer's instructions.

1.05 REGULATORY REQUIREMENTS

A. Underwriters Laboratories, Inc. (UL): Class A Fire Hazard Classification.

1.06 DELIVERY, STORAGE AND HANDLING

A. Deliver products to site under provisions of Division 1.

B. Under provisions of Division 1, store materials in weather protected environment clear of ground and moisture. Protect foam board from direct sunlight exposure if required.

1.07 ENVIRONMENTAL REQUIREMENTS

A. Comply with manufacturer's restrictions.

1.08 PREINSTALLATION CONFERENCE

A. Convene one week prior to commencing work of this Section under provisions of Division 1.

B. Review conditions of installation, installation procedures, and coordination required with related work.

1.09 GUARANTEE

A. Roofing contractor shall guarantee and maintain all roofing, flashing, accessories, and insulation for a period of five (5) years in a leak-free condition at no cost to the Owner. This period shall extend from the date of final acceptance of the building by Owner. Provide warranty under provisions of Division 1.

B. New Roof: Roofing manufacturer shall furnish a thirty (30) year "no dollar limit" guarantee for all new roofing material in accordance with the manufacturer's warranty for wind speed of 90 m.p.h. This warrantee shall provide for replacement of any failed product at no cost to the owner for materials and labor. Provide warranty under provisions of Division 1. Warranty will be signed by Roofing Contractor and Roofing Manufacturer.

C. Roofing manufacturer shall furnish a thirty (30) year warranty on the roof membrane materials. Provide warranty under provisions of Division 1.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS – MEMBRANE

A. Sarnafil 80 mil textured grey PVC thermoplastic membrane.

B. Substitutions: The above listed roof systems are acceptable on the Base Bid. Contractors wishing to submit bids using other manufacturers or other systems must bid those systems or manufacturers as a Voluntary Alternate and state the manufacturer and system that they are bidding.

2.02 MEMBRANE MATERIALS

A. Membrane: Membrane shall be compatible with all materials it comes in direct contact with.

B. Flexible Flashings: As recommended by membrane manufacturer.

C. Special Flashings: As recommended by membrane manufacturer.

D. Prefabricated Control or Expansion Joint Flashing: As recommended by membrane manufacturer.

2.03 RIGID INSULATION

A. Rigid Insulation: Shall be in thicknesses as shown on the drawings and compatible with all components of roof system and shall be approved by the membrane manufacturer. Insulation shall be Polyisocyanurate with 11.4 LTTR for 2" thickness.

2.04 ACCESSORIES

A. Sealants: As recommended by membrane manufacturer.

B. Reglet Strip Devices: As recommended by membrane manufacturer.

C. Mechanical Fasteners: Fasteners shall be sized appropriately for the application with Sarnadisc RhinoBond TreadSafe 3” round polymer coated steel plates.

PART 3 EXECUTION

3.01 INSPECTION

A. Mechanically fasten through two layers of 2” rigid insulation to the existing metal deck.

B. Verify insulation is clean and smooth, free of depressions, waves, or projections, properly sloped to drains, or eaves.

C. Verify roof openings and penetrating elements through roof are solidly set; wood cant strips, wood nailing strips, and reglets are in place. Verify deck is supported and secured.

D. Do not apply roofing materials to damp, frozen, dirty, dusty, or deck surfaces unacceptable to manufacturer or applicator.

E. Verify deck surfaces are dry and free of snow or ice.

F. Beginning installation means acceptance of existing surfaces.

3.02 RIGID INSULATION APPLICATION

A. Verify roof deck is clean and dry and edges are overlapped as required.

B. Place insulation in accordance with insulation manufacturer's instructions.

C. Lay 2 layers of 2” thick rigid insulation with staggered joints.

D. Lay insulation boards to moderate contact without forcing joints. Cut insulation to fit neatly to perimeter blocking and around protrusions through roof.

E. Lay tapered boards for a distance of 24 inches back from roof drains for positive drainage. Minimum thickness at roof drains 2”.

3.03 MEMBRANE INSTALLATION

A. Install membrane roofing in strict accordance with manufacturer's instructions.

B. Roll out membrane. Work out air bubbles, wrinkles, and fishmouths. Firmly press sheet into place without stretching.

C. Shingle joints on sloped substrate in direction of drainage.

D. T-joints require .060 Sarnafil membrane patches.

E. Seal to adjoining surfaces.

F. Continue membrane up vertical surfaces as required by membrane manufacturer. Extend membrane across all wood plates at copings or under metal copings to outside edge. All vertical applications shall be fully adhered in adhesive.

G. Install flashings. Seal watertight to membrane.

H. Reinforce membrane with multiple thickness of membrane material over joints, whether joints are static or moving.

I. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.

J. All membrane overlaps shall be hot-air welded. The membrane shall be clean and dry prior to hot-air welding.

K. Field membrane overlaps for automatic machine-welding will vary in width depending on the plate and fastener combination used. A minimum of 4” (10.2 cm) wide overlap is required when hand-welding details.

L. Secure new membrane to the insulation fasteners by induction welding the membrane to the Sarnadisc RhinoBond plates. After weld is complete, immediately apply magnetic heat sink.

3.04 PROTECTION

A. Protect finished installation under provisions of Section 01500.

B. After installation, close off area to prevent unauthorized traffic.

3.05 CLEAN UP

A. Remove debris and unused materials from site. Leave area clean and ready for use.

END OF SECTION

SECTION 07 5630

REHABILITATION OF SINGLE PLY ROOFING – 30 YEAR WARRANTY - BASE BIDS #1B, #2B, #3B, #4B & #5B

PART 1 - GENERAL

1.01 SUMMARY

A. This Section includes the following:

1. Roof membrane coating preparation.

2. Application of reinforced fluid-applied roof membrane and flashings over existing fully adhered roof membrane.

1.02 ROOFING CONFERENCES

A. Roofing Rehabilitation Pre-installation Conference: Conduct conference at Project site to review methods and procedures related to roofing system.

1. Meet with Owner; Architect; roofing coating materials manufacturer's representative; roofing rehabilitation Installer including project manager and foreman; and installers whose work interfaces with or affects rehabilitation including installers of roof accessories and roof-mounted equipment requiring removal and replacement as part of the Work.

2. Review temporary protection requirements for existing roofing system that is to remain uncoated, during and after installation.

3. Review methods and procedures related to re-coating preparation, including coating manufacturer's written instructions.

4. Review roof drainage during each stage of coating and review roof drain plugging and plug removal procedures.

5. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

6. Review base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that will affect coating.

7. Review HVAC shutdown and sealing of air intakes.

8. Review shutdown of fire-suppression, -protection, and -alarm and -detection systems.

9. Review procedures for asbestos removal or unexpected discovery of asbestos-containing materials.

10. Review governing regulations and requirements for insurance and certificates if applicable.

11. Review existing conditions that may require notification of Owner before proceeding.

1.03 MATERIALS OWNERSHIP

A. Demolished materials shall become Contractor's property and shall be removed from Project site.

1.04 DEFINITIONS

A. Roofing Terminology: Refer to ASTM D1079 "Standard Terminology Relating to Roofing and Waterproofing" and glossary in NRCA's "The NRCA Roofing Manual: Membrane Roof Systems" for definition of terms related to roofing work in this Section.

B. Roofing Coating Preparation: Existing roofing that is to remain and be prepared to accept restorative coating application.

C. Patching: Removal of a portion of existing membrane roofing system from deck or removal of selected components and accessories from existing membrane roofing system and replacement with similar materials.

D. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and reinstalled.

E. Existing to Remain: Existing items of construction that are not indicated to be removed.

1.05 QUALITY ASSURANCE

A. Installer Qualifications: An employer of workers trained and certified by manufacturer, including a full-time on-site supervisor with a minimum of three years' experience installing products similar to those specified, able to communicate verbally with Contractor, Architect, and employees, and the following:

1. Qualified by the manufacturer to install manufacturer's product and furnish warranty of type specified.

B. Manufacturer Qualifications: Primary product manufacturer that is UL listed for roofing system identical to that specified for this Project with minimum five years' experience in manufacture of comparable products in successful use in similar applications, and able to furnish warranty with provisions matching specified requirements.

C. Roofing Inspector Qualifications: A technical representative of manufacturer not engaged in the sale of products and experienced in the installation and maintenance of the specified roofing system, qualified to perform roofing observation and inspection specified in Field Quality Control Article, to determine Installer's compliance with the requirements of this Project, and approved by the manufacturer to issue warranty certification. The Roofing Inspector shall be one of the following:

1. An authorized full-time technical employee of the manufacturer.`

2. An independent party certified as a Registered Roof Observer by the International Institute of Building Enclosure Consultants (formerly the Roof Consultants Institute) retained by the Contractor or the Manufacturer and approved by the Manufacturer.

1.06 FIELD CONDITIONS

A. Weather Limitations: Proceed with rehabilitation work only when existing and forecasted weather conditions permit Work to proceed without water entering into existing roofing system or building.

1. Store all materials prior to application at temperatures recommended by manufacturer.

2. Apply coatings within range of ambient and substrate temperatures recommended by manufacturer.

3. Do not apply roofing in snow, rain, fog, or mist.

B. Protect building to be rehabilitated, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from rehabilitation operations.

C. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.

D. Daily Protection: Coordinate installation of roofing so insulation and other components of roofing system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is forecast.

E. Owner will occupy portions of building immediately below re-coating area. Conduct re-coating so Owner's operations will not be disrupted. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.

1.07 WARRANTY

A. Manufacturer's Warranty: In which manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within warranty period, as follows.

1. Form of Warranty: Manufacturer's standard warranty form amended as needed to meet the requirements of this specification.

2. Scope of Warranty: Includes all areas of roofing work provided at no cost to the Owner for the entire warranty period.

3. Warranty Period: 30 years from date of completion.

4. Response time after notification of any warranty issue shall occur on site within two business days or 48 hours. This response period does not include Saturdays or Sundays.

B. Manufacturer Inspection Services: By manufacturer's technical representative, to report maintenance responsibilities to Owner necessary for preservation of Owner's warranty rights. The cost of manufacturer's inspections is included in the Contract Sum.

1. Inspections to occur in following years: 2, 5, 10, 15 and 20 following completion.

C. Installer Warranty: Installer's warranty signed by Installer, as follows.

1. Form of Warranty: Form acceptable to Roofing Manufacturer and Owner.

2. Scope of Warranty: Work of this Section.

3. Warranty Period: 5 years from date of completion.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Basis of Design: The roof system specified in this Section is based upon products of Tremco, Inc., Beachwood, OH, (800) 562-2728, www.tremcoroofing.com that are named in other Part 2 articles.

B. Other approved Manufacturers: Garland

C. Substitutions per Division 0 and Division 1 requirements.

D. Source Limitations: Obtain components for roofing system from same manufacturer as membrane roofing or manufacturer approved by membrane roofing manufacturer.

2.02 PERFORMANCE REQUIREMENTS

A. General Performance: Rehabilitated roofing shall withstand exposure to weather without failure or leaks due to defective manufacture or installation.

1. Accelerated Weathering: Roofing system shall withstand 5000 hours of exposure when tested according to ASTM G152, ASTM G154, or ASTM G155.

B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.

C. Exterior Fire-Test Exposure: Roofing system exterior fire-test exposure performance following application of rehabilitation coating shall be not be less than that of the prerehabilitated roof performance when tested in accordance with ASTM E108, based upon manufacturer's tests of identical applications.

2.03 MATERIALS, GENERAL

A. General: Rehabilitation materials recommended by roofing system manufacturer for intended use and compatible with components of existing membrane roofing system.

B. Infill Materials: Where required to replace test cores and to patch existing roofing, use infill materials matching existing membrane roofing system materials, unless otherwise indicated.

C. Temporary Roof Drainage: Design and selection of materials for temporary roof drainage are responsibilities of the Contractor.

2.04 FLUID-APPLIED ROOFING MEMBRANE COATING

A. Polyurethane Elastomeric Fluid-Applied System: Two-coat fluid-applied roofing membrane formulated for application over prepared existing roofing substrate.

1. Polyurethane Roof Coating System Base Coat: Single-part moisture-curing, for use with a compatible top coat.

a. Basis of design product: Tremco, AlphaGuard MT Base Coat.

b. Combustion Characteristics, UL790: Maintains combustion characteristics of existing roof system.

c. Volatile Organic Compounds (VOC), maximum, ASTM D3960: 35 g/L.

d. Accelerated Weathering, 5000 hours, ASTM G154: Pass.

e. Solids, by volume, ASTM D2697, minimum: 87 percent.

f. Minimum Thickness, Base Coat on Smooth Surface: 48 mils (1.22 mm) wet.

2. Polyurethane roof coating system top coat, low odor low VOC single-part, for application over compatible base coat.

a. Basis of design product: Tremco, AlphaGuard MT Top Coat.

b. Combustion Characteristics, UL790: Maintains combustion characteristics of existing roof system.

c. Volatile Organic Compounds (VOC), maximum, ASTM D 3960: 40 g/L.

d. Solar Reflectance Index (SRI), ASTM C1549: 86 percent.

e. Accelerated Weathering, 5000 hours, ASTM G154: Pass.

f. Hardness, Shore A, minimum, ASTM D2240: 85.

g. Solids, by volume, ASTM D2697: 87.

h. Minimum Thickness: 48 mils (1.22 mm) wet over cured base coat.

i. Color: As selected from manufacturer's standard color.

B. Primers:

1. Primer for Asphaltic and Single-Ply Membranes: Water-based, polymer-modified quick-dry low odor primer.

a. Basis of design product: Tremco, AlphaGuard WB Primer.

b. Volatile Organic Compounds (VOC), maximum, ASTM D3960: 1 g/L.

c. Solids, by weight: 70 percent.

C. Fluid-Applied Roofing Reinforcing Fabric:

1. Polyester Reinforcing and Protection Fabric: 100 percent stitch-bonded mildew-resistant polyester fabric intended for reinforcement of compatible fluid-applied membranes and flashings and as a protection layer under pavers or stone aggregates.

a. Basis of design product: Tremco, Permafab.

b. Tensile Strength, Minimum, ASTM D1682: 50 lbf (23 kg) avg..

c. Elongation, Minimum, ASTM D1682: 60 percent.

d. Tear Strength, Minimum, ASTM D1117: 16 lbf (7.3 kg) avg..

e. Weight: 3 oz./sq. yd (102 g/sq. m).

2.05 AUXILIARY ROOFING REHABILITATION MATERIALS

A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with existing roofing system and roofing coating system.

B. Miscellaneous Accessories: Provide miscellaneous accessories recommended by roofing system manufacturer.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine existing roofing substrates, with Installer present, for compliance with requirements and for other conditions affecting application and performance of roof coatings

1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance.

2. Verify compatibility with and suitability of substrates.

3. Verify that substrates are visibly dry and free of moisture.

4. Verify that roofing membrane surfaces have adequately aged to enable proper bond with base coat.

5. Verify that roofing membrane is free of blisters, splits, open laps, indications of shrinkage, and puncture damage or other indications of impending roof system failure.

6. Commencing application of coatings indicates acceptance of surfaces and conditions.

3.02 PREPARATION

A. Protect existing roofing system that is indicated not to be rehabilitated, and adjacent portions of building and building equipment.

1. Mask surfaces to be protected. Seal joints subject to infiltration by coating materials.

2. Limit traffic and material storage to areas of existing roofing membrane that have been protected.

3. Maintain temporary protection and leave in place until replacement roofing has been completed.

B. Shut down air intake equipment in the vicinity of the Work in coordination with the Owner. Cover air intake louvers before proceeding with coating work that could affect indoor air quality or activate smoke detectors in the ductwork.

1. Verify that rooftop utilities and service piping affected by the Work have been shut off before commencing Work.

C. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.

1. Do not permit water to enter into or under existing membrane roofing system components that are to remain.

3.03 ROOFING COATING PREPARATION

A. Removal of Wet Insulation: Remove portions of roofing membrane with underlying wet insulation. Remove wet insulation, fill in tear-off areas to match existing insulation and membrane, and prepare patched membrane for application of roof coating as specified below.

B. Repair of Ponding Areas: Repair areas indicated as ponding areas or areas of inadequate drainage by removing roof membrane, adding additional insulation as required to provide minimum slopes to drain required by roofing rehabilitation coating manufacturer, and replace membrane with material matching existing. Submit photographic report indicating compliance.

C. Membrane Surface Preparation:

1. Remove walkway pads and pavers from roofing membrane. Discard damaged pavers.

2. Remove blisters, ridges, buckles, roofing membrane fastener buttons projecting above the membrane, and other substrate irregularities from existing roofing membrane that would inhibit application of uniform, waterproof coating.

3. Broom clean existing substrate.

4. Substrate Cleaning: Clean substrate in accordance with requirements of Division 07 Section "Maintenance Cleaning of Membrane Roofing."

5. Verify that existing substrate is dry before proceeding with application of coating. Spot check substrates with an electrical capacitance moisture-detection meter.

6. Verify adhesion of new products.

D. Existing Flashing and Detail Preparation: Repair flashings, gravel stops, copings, and other roof-related sheet metal and trim elements. Reseal joints, replace loose or missing fasteners, and replace components where required to leave in a watertight condition.

1. Do not damage metal counterflashings that are to remain. Replace metal counterflashings damaged during removal with counterflashings of same metal, weight or thickness, and finish.

2. Roof Drains: Remove drain strainer and clamping ring. Grind metal surfaces down to clean, bare, metal.

E. Surface Priming: Prime surfaces to receive fluid-applied coating using coating manufacturer's recommended product for surface material. Apply at application rate recommended by manufacturer.

1. Ensure primer does not puddle and substrate has complete coverage.

2. Allow to cure completely prior to application of coating.

3.04 FLUID-APPLIED FLASHING APPLICATION

A. Fluid-Applied Flashing and Detail Base Coat Application: Complete base coat and fabric reinforcement at parapets, curbs, penetrations, and drains prior to application of field of fluid-applied membrane. Apply base coat in accordance with manufacturer's written instructions.

1. Apply base coat on prepared and primed surfaces and spread coating evenly. Extend coating minimum of 8 inches (200 mm) up vertical surfaces and 4 inches (100 mm) onto horizontal surfaces.

2. Back roll to achieve minimum coating thickness indicated on Part 2 product listing, unless greater thickness is recommended by manufacturer; verify thickness of base coat as work progresses.

3. Reinforcing Fabric: Embed fabric reinforcement into wet base coat. Lap adjacent flashing pieces of fabric minimum 3 inches (75 mm) along edges and 6 inches (150 mm) at end laps.

a. Roll surface of fabric reinforcing to completely embed and saturate fabric. Leave finished base coat with fabric free of pin holes, voids, or openings.

4. Roof Drains: Install base coat onto surrounding membrane surface and metal drain bowl flange. Install target piece of fabric reinforcement immediately into wet base coat and roll to fully embed and saturate fabric. Reinstall clamping ring and strainer following application of top coat. Replace broken drain ring clamping bolts.

3.05 FLUID-APPLIED MEMBRANE APPLICATION

A. Fluid-Applied Membrane Base Coat: Apply base coat to field of membrane in accordance with manufacturer's written instructions.

1. Apply base coat on prepared and primed surfaces and spread coating evenly.

2. Back roll to achieve minimum coating thickness indicated on Part 2 product listing, unless greater thickness is recommended by manufacturer; verify thickness of base coat as work progresses.

B. Fluid-Applied Membrane Top Coat: Apply top coat to field of membrane and flashings uniformly in a complete, continuous installation.

1. Allow base coat to cure prior to application of top coat.

2. Following curing of base coat and prior to application of top coat, sand raised or exposed edges of fabric reinforcement.

3. Prime base coat prior to application of top coat if top coat is not applied within 72 hours of the base coat application, using manufacturer's recommended primer.

4. Apply top coat extending coating up vertical surfaces and out onto horizontal surfaces. Install top coat over field base coat and spread coating evenly.

5. Back roll to achieve minimum coating thickness indicated on Part 2 product listing, unless greater thickness is recommended by manufacturer; verify thickness of base coat as work progresses.

6. Avoid foot traffic on new fluid-applied membrane for a minimum of 24 hours.

3.06 FIELD QUALITY CONTROL

A. Roofing Inspector: Owner will engage a qualified roofing inspector to perform roof tests and inspections and to prepare test reports.

B. Roofing Inspector: Contractor shall engage a qualified roofing inspector for a minimum of 1 full-time days on site, per 40-hour crew week, to perform roof tests and inspections and to prepare start up, interim, and final reports. Roofing Inspector's quality assurance inspections shall comply with criteria established in Quality Control and Quality-assurance Guidelines for the Application of Membrane Roof Systems."

C. Roof Inspection: Contractor shall engage roofing system manufacturer's technical personnel to inspect roofing installation, and submit report. Notify Architect 48 hours in advance of dates and times of inspections. Inspect work as follows:

1. Upon completion of preparation of first component of work, prior to application of re-coating materials.

2. Following application of re-coating to flashings and application of base coat to field of roof.

3. Upon completion of re-coating but prior to re-installation of other roofing components.

D. Repair fluid-applied membrane where test inspections indicate that they do not comply with specified requirements.

E. Arrange for additional inspections, at Contractor's expense, to verify compliance of replaced or additional work with specified requirements.

3.07 PROTECTING AND CLEANING

A. Protect roofing system from damage and wear during remainder of construction period.

B. Correct deficiencies in or remove coating that does not comply with requirements, repair substrates, and reapply coating.

C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION

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SECTION 07 6200

SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.01 WORK INCLUDED

A. Roof flashings.

B. Counterflashings over base flashings.

C. Counterflashings at roof mounted mechanical equipment and vent stacks

D. Gutters and downspouts.

1.02 SYSTEM DESCRIPTION

A. This Contractor shall coordinate his work with that of the roofing contractor to insure that all work is properly installed to insure against leakage.

B. In all cases, all work shall be done in such a manner as to guarantee neat appearance, proper anchorage, weather-tightness, and to provide for adequate expansion and contraction.

C. This Contractor shall fully guarantee the weather-tightness of all his work.

1.03 QUALITY ASSURANCE

A. Applicator: Company specializing in sheet metal flashing work with 5 years minimum experience.

B. This work shall be included in the roofing warranties specified.

1.04 SUBMITTALS

A. Submit product data under provisions of Division 1.

B. Submit samples under provisions of Division 1.

C. Provide full sized sample of metal flashing illustrating typical material, finish, joints and seams.

1.05 STORAGE AND HANDLING

A. Store products under provisions of Division 1.

B. Stack preformed and prefinished material to prevent twisting, bending, or abrasion, and to provide ventilation.

C. Prevent contact with materials during storage which may cause discoloration, staining, or damage.

D. Protect from direct sunlight as required by manufacturer.

1.06 GUARANTEE

A. Roofing contractor shall guarantee and maintain all sheet metal work for a period of five (5) years in a leak-free condition at no cost to the Owner. This period shall extend from the date of final acceptance of the building by Owner.

B. Roofing manufacturer shall furnish a minimum ten (10) year guarantee for all roof flashing materials in accordance with the manufacturer's warranty. If the standard warranty exceeds ten (10) years for that manufacturer's product, then the standard warranty shall be provided. This warrantee shall provide for replacement of any failed product at no cost to the Owner for materials and labor. Provide warranty under provisions of Division 1.

C. Provide thirty (30) year warranty on paint finish failures due to fading, checking, peeling, blistering and chalking after date owner accepts entire project.

D. Provide warranties and guarantees under provisions of Division 1.

PART 2 PRODUCTS

2.01 SHEET MATERIALS

A. Pre-coated Galvanized Steel: ASTM A525, G 90; 24 gauge hot dipped galvanized core steel, commercial quality, extra smooth primed and finished one side with Kynar 500 FSF resin-based coating applied over an epoxy primer. An acrylic washcoat of .3 to .4 mil dry film thickness is applied to the reverse side. The pre-painted finished side shall be coated with a liquid applied factory installed strippable film.

2.02 COMPONENTS

A. Gutters: Continuous 5” K Style.

B. Downspouts: 3”x4” Rectangular profile.

C. End Caps, Downspouts Outlets, Rain Diverters, Gutter, Downspout, Straps, Support Brackets, Joint Fasteners, Down Spout Strainers, Gutter Screens, Downspout Header: Profiled to suit gutters and downspouts.

2.03 ACCESSORIES

A. Fastener: Size and type to suit application. Finish exposed fasteners same as flashing.

B. Anchorage Devices: SMACNA Requirements; type as recommended by fabricator.

C. Gutter Supports: Type, size and spacing recommended by fabricator.

D. Sealant: As recommended by sheet material manufacturer.

E. Reglets: Size and type as shown on the Drawings or as recommended by the sheet material manufacturer.

2.04 FABRICATION

A. Form sections true to shape, accurate in size, square, and free from distortion or defects.

B. Form gutters and downspouts of profiles and sizes indicated to SMACNA requirements.

C. Form pieces in longest practical lengths.

D. Hem exposed edges on underside 1/2 inch; miter and seam corners.

E. Fabricate corners from one piece with minimum 18 inch long legs; seal with sealant.

F. Fabricate vertical faces with bottom edge formed outward 1/4 inch (6 mm) and hemmed to form drip or as shown on Drawings.

G. Fabricate flashings to allow toe to extend 2 inches over roofing. Return and brake edges.

H. Fabricate gutter and downspout accessories; seal watertight.

PART 3 EXECUTION

3.01 INSPECTION

A. Verify roof openings, curbs, pipes, sleeves, ducts, or vents through roof are solidly set, cant strips and reglets in place, and nailing strips located.

B. Verify membrane termination and base flashings are in place, sealed, and secure.

C. Verify that surfaces are ready to receive work.

D. Beginning of installation means acceptance of existing conditions.

3.02 PREPARATION

A. Field measure site conditions prior to fabricating work.

3.03 INSTALLATION

A. Install starter and edge strips, and cleats before starting installation.

B. Install surface mounted reglets true to lines and levels. Seal top of reglets with sealant.

C. Insert flashings into reglets to form tight fit. Secure in place as required. Seal flashings into reglets with sealant.

D. Secure flashings in place using concealed fasteners. Use exposed fasteners only in locations approved by Architect.

E. Apply plastic cement compound between metal flashings and felt flashings.

F. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.

G. Conform to drawing details included in SMACNA manual. All metal work shall conform to SMACNA standards.

H. Install gutters, downspouts, and accessories in accordance with manufacturer's instructions.

I. Join lengths with seams sealed watertight. Flash and seal gutters to downspouts and accessories.

END OF SECTION