LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OES, PUBLIC PARTICIPATION AND PERMIT SUPPORT DIVISION
NOTIFICATIONS AND ACCREDITATIONS SECTION

Required Elements for Asbestos Management Plans for School and State Buildings
Form AAC-8
LAC 33:III.Chapter 27

In accordance with federal and state law, Schools (LEAs) and State Buildings are required to determine whether asbestos containing material (ACM) is present, what types of ACM may be present, and where the ACM is located. This information and subsequent activities to ensure that the ACM is maintained to prevent or repair any damages to the ACM is documented in the Asbestos Management Plan. The completion and maintenance of the AAC-8 will ensure that the Management Plan includes the plan elements required by law to meet federal (40 CFR Part 763) and state (*LAC 33:III.Chapter 27*) requirements and will facilitate accurate and timely state review.

Directions: Please note that the current AAC-8 form is an interactive Asbestos Management Plan and the information shall be typed or legibly hand written on the form itself, not referencing another document as in the previous AAC-8 form. This form must be completed properly by an LDEQ accredited Management Planner and submitted as the Asbestos Management Plan required for a school (Kindergarten through Post-graduate), state owned, leased, or state-used building. **A written explanation must be provided for any incomplete section.** The explanation must be included in the section or if too long, attached behind the corresponding section.

All **schools** must submit their Asbestos Management Plan directly to **LDEQ, OES, Public Participation and Permit Support Division, Notifications and Accreditations Section, P.O. Box 4313, Baton Rouge, LA 70821-4313.** For a School Building Exclusion (LAC 33:III.2735), only complete the AAC-8 Form, pages 1, 4, and 5 (Sections I, II, and III), and provide supporting evidence as applicable.

Any Asbestos Management Plan for a **state building**, whether it is owned, leased, or otherwise used as a state building must submit the Asbestos Management Plan directly to **Real Estate Leasing Administrator, Division of Administration, Facility Planning and Control, Real Estate Leasing Section, P.O. Box 94095, Baton Rouge, LA 70804-9095.**

APPLICABILITY:

The building is being used for the following purpose:

☒ School (Kindergarten through Post-Graduate) ☐ New School (Constructed after October 12, 1988)

☐ State building (Owned, Leased, or Used) ☐ Other: _____

STATE BUILDING EXEMPTION (*LAC 33:III.2701.B*)

I. **If the following exemption applies, complete pages 1, 2, 5 (Section A: I and III), and provide supporting evidence as applicable.** Note: A.II. does not apply to state buildings

1. ☐ This building is **not** a school building (see definition of school building) used for grades kindergarten through post-graduate; and

2. ☐ This state building was built after 1978 and is exempt from the requirements of this Chapter because there is no possibility of the presence of asbestos ***(LAC 33:III.2701.B.2)***; or

3. ☐ This state building was built before 1979 and is exempt from the requirements of this Chapter because an inspection was conducted in accordance with ***LAC 33:III.2707.A***, and no asbestos is contained in the building, provided that:

a. a copy of the inspection report is submitted within 90 days of the inspection;
b. a copy of the report is maintained at the administrative office; and
c. no asbestos material was added in a renovation.

II. If an exemption is being requested from the requirements of submitting an asbestos Management Plan as indicated in ***LAC 33:III.2701.B.2***, "State buildings built after 1978 are exempt from the requirements of this Chapter unless there is the possibility of the presence of asbestos or the building is used for education of grades kindergarten through post-graduate."

The undersigned does hereby certify that the building will be used as a state building and there is no possibility of the presence of asbestos in the building as stated above (***LAC 33:III.2701.B.2***).

Responsible Individual (printed/typed name): _____
Responsible Individual Signature: _____
Responsible Individual Contact Information: Phone No: _(____)_____
Fax No: _(____)_____ Email Address: _____

III. If an exemption is being requested from the requirements of submitting an asbestos Management Plan as indicated in ***LAC 33:III.2701.B.3***, "This state building was built before 1979 and is exempt from the requirements of this Chapter because an inspection was conducted in accordance with ***LAC 33:III.2707.A***, and no asbestos is contained in the building or on the outside of the building **(*LAC 33:III.2701.B.3.b.ii*)**," attach the inspection report as noted above and a copy of current Louisiana inspector accreditation certificate behind this page. **(*LAC 33:III.2707.A.5*).**

Name of Louisiana Accredited Inspector: _____
Louisiana Accredited Inspector Signature: _____
Louisiana DEQ Accreditation No: _____
Expiration Date: _____

STATE BUILDING EXEMPTION (Continued) (*LAC 33:III.2735.C*)

*Please note that, in accordance with LAC 33:III.2735.C, "**If ACBM is subsequently found** in a homogeneous or sampling area of the **state government** [the responsible party for the state building] that had been identified as receiving an exclusion by an accredited inspector under Paragraph A.3, 4, or 5 of this Section, or an architect, project engineer, or accredited inspector under Paragraph A.7 of this Section, the state government [responsible party for the state building] shall have 180 days following the date of identification of ACBM to comply with this Chapter."

SCHOOL BUILDING EXCLUSIONS (*LAC 33:III.2735*)

I. If the following exclusions apply, complete pages 1, 4, 5 (Section A: I, II, and III), and provide supporting evidence as applicable.

a. ☐ An architect or project engineer responsible for the **construction of a new school building built after October 12, 1988**, or an accredited inspector signs a statement that no ACBM was specified as a building material in any construction document for the building or, to the best of his or her knowledge, no ACBM was used as a building material in the building. The local education agency **shall submit a copy of the signed statement of the architect, project engineer, or accredited inspector to the Office of Environmental Services and shall include the statement in the management plan for that school.**

The signed statement (supporting evidence) shall be placed behind this Section.

*****Please note that, in accordance with LAC 33:III.2735.C, "**If ACBM is subsequently found** in a homogeneous or sampling area of a **local education agency** or the state government [responsible party for the state building] that had been identified as receiving an exclusion by an accredited inspector under Paragraph A.3, 4, or 5 of this Section, or an architect, project engineer, or accredited inspector under Paragraph A.7 of this Section, the local education agency or the state government [responsible party for the state building] shall have 180 days following the date of identification of ACBM to comply with this Chapter."

b. ☐ If the school or state bldg has been abated, and a thorough reinspection has confirmed that there is **no friable and nonfriable known or assumed ACBM in each building, further reinspections are no longer required (LAC 33:III.2707.B.1).**

*Note in the management plan all of the information contained in the reinspection, including the inspection report, sampling and analysis report, inspector's name, address, contact information, including telephone no and email address, etc.

c. ☐ If the school meets either a. or b. above, periodic surveillance is no longer required.

***There are no exclusions from maintaining an Asbestos Management Plan for Schools, which shall be kept in the administrative office for review.** The management plan shall be available, without cost or restriction, for inspection by representatives of EPA and the state, and the public, including parents, teachers, other school or public personnel, and their representatives. The local education agency or the responsible party for the state building may charge a reasonable cost to make copies of management plans. (LAC 33:III.2723.F)

Section A

Print Legibly or Type

FACILITY INFORMATION
(LAC 33:III.2723.D.1)

I. Building Information (Required for Schools and State Buildings)**:**

Name of Building	Oak Park Elementary School		
Building Address	2001 18th Street		
	City: Lake Charles	State: LA	Zip code: 70601
Date of Construction of Building	1952		

II. Information Required for a School:

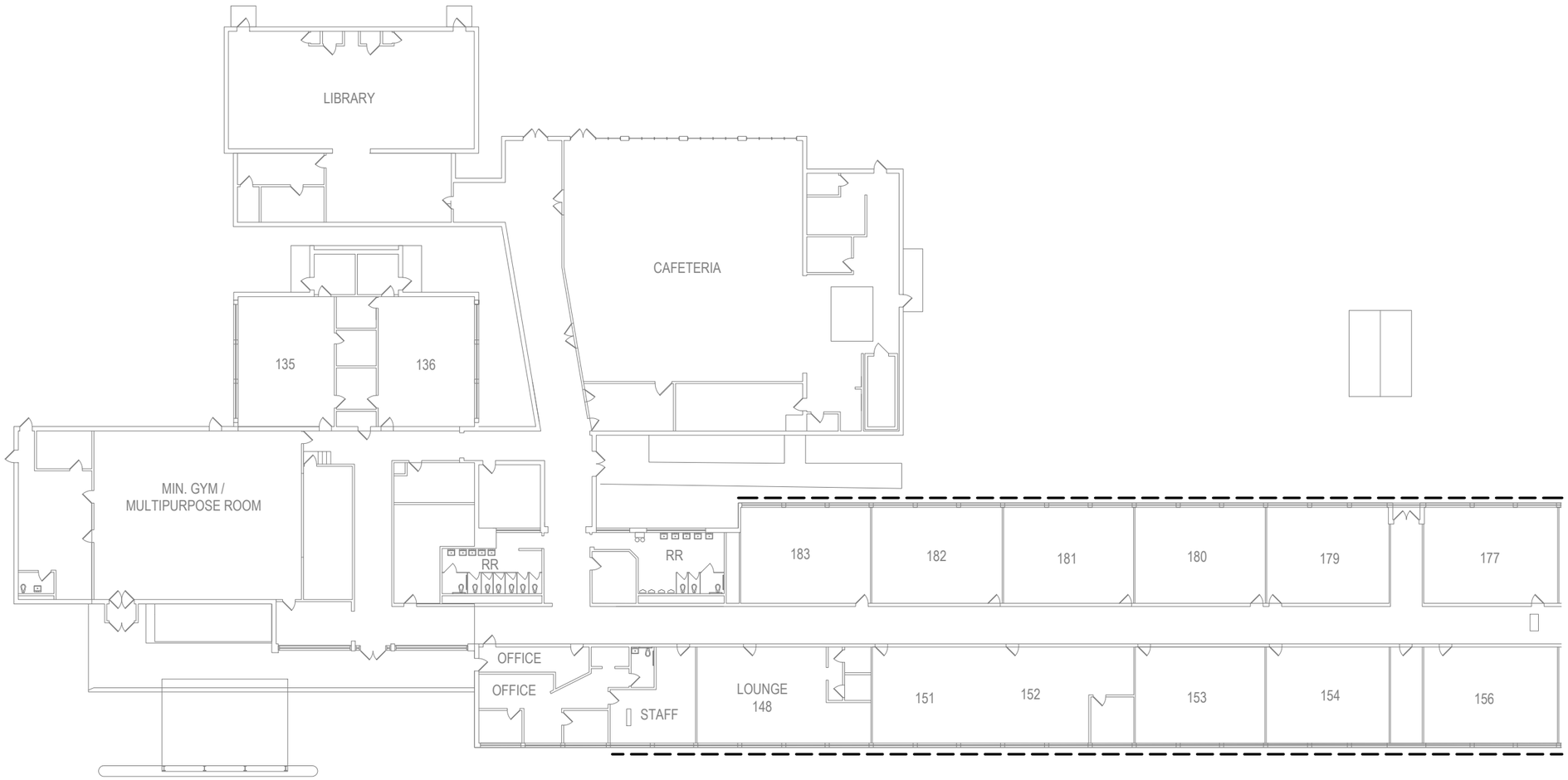
Responsible Official for School Print/Type Name & Title	Kenny Brown		
School is Owned by: ☐ City ☒ Parish ☐ State ☐ Private	Name of Building Owner (School Board, other) Calcasieu Parish School Board		
Mailing Address	P.O. Box 800		
	City: Lake Charles	State:	City: Lake Charles

III. Lessor Information (Required if School or State building is leased)**:**

Lessor's Name			
Lessor's Address			
	City:	State:	Zip code:
Lessor's Contact Person			
Lessor's Email Address			
Lessor's Telephone No. ( )		Lessor's Fax No. ( )	

IV. Is Asbestos present in the building?
☒ Yes ☐ No

V. Yes, the building contains:
☐ Friable ACBM
☒ Nonfriable ACBM
☐ Friable and Nonfriable suspected ACBM assumed to ACBM



MAIN BUILDING (WEST), MULTIPURPOSE,
LIBRARY, AND CAFETERIA

0' 15' 30' 45'

— — — — TRANSITE PANELS

FLOOR TILE/MASTIC MAY REMAIN BENEATH MILLWORK

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◇ THIS DRAWING IS APPROVED FOR CONSTRUCTION

◆ THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION

N

PROJECT NORTH

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.
PHONE: (225) 761 - 9141
FAX: (225) 761 - 4450

CLIENT: CALCASIEU PARISH SCHOOL BOARD

PROJECT: OAK PARK ELEMENTARY

SHEET: AMP UPDATE – MAIN BLDG (WEST) MULTIPURPOSE, LIBRARY, & CAFE.

PROJECT NUMBER
25007
FACILITY NUMBER
114

REVISION		
NO.	DATE	BY

DRAWN BY:	JLY
CHECKED BY:	CMW
DATE:	5/27/2025
SCALE:	AS NOTED
SHEET	1 OF 2



MAIN BUILDING (EAST) & PODS

0' 15' 30' 45'

TRANSITE PANELS

FLOOR TILE/MASTIC MAY REMAIN BENEATH MILLWORK

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◆ THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION

N

PROJECT NORTH

WYNN L. WHITE CONSULTING ENGINEERS, INC.
PHONE: (225) 761 - 9141
FAX: (225) 761 - 4450

CLIENT: CALCASIEU PARISH SCHOOL BOARD

PROJECT: OAK PARK ELEMENTARY

SHEET: AMP UPDATE
MAIN BLDG (EAST) & PODS

PROJECT NUMBER
25007
FACILITY NUMBER
114

REVISION		
NO.	DATE	BY

DRAWN BY:	JLY
CHECKED BY:	CMW
DATE:	5/27/2025
SCALE:	AS NOTED
SHEET	2 OF 2

Section B

INSPECTIONS CONDUCTED

(Check Appropriate Box)

☐ Inspections conducted before December 14, 1987 – Complete all Section A and B, Part I. **(*LAC 33:III.2723.D.2*)**

☐ Inspections conducted after December 14, 1987 – Complete all Sections A-G, except Section B, Part I. **(*LAC 33:III.2723.D.3 and 2707*)**

If the inspection report was conducted before December 14, 1987, attach inspection report behind Section B, Part I.

If the inspection report was conducted after December 14, 1987, attach inspection report behind Section B, Part II.

Section B
Part I

A. The following shall be included for each inspection conducted before December 14, 1987:

☐ Date of Inspection **(*LAC 33:III.2723.D.2.a*)**

☐ Bulk Sampling Location Diagram – **(*LAC 33:III.2723.D.2.b*)**:

Location of Sampling Area	Approx. Square or Linear ft of any Homogeneous or Sampling Areas where Material was Sampled for Asbestos Containing Material (ACM)	Exact Locations where Bulk Samples were Collected	Date of Collection

Attach blueprints, diagrams or written descriptions of all homogeneous or sampling areas behind Section B, Part I.

Section B
Part I

☐ Analysis **(*LAC 33:III.2723.D.2.c*)**:

- Copy of analyses of any bulk samples taken
- Date of Analyses
- Copy of any other lab reports pertaining to the analyses

☐ Response Actions/Preventative Measures **(*LAC 33:III.2723.D.2.d*)**:

- Description of any response actions or preventative measures taken to reduce exposure
- Names and addresses of the contractors involved
- Start and completion dates of the work
- Results of any air samples analyzed during and upon completion of work

☐ A description of assessments, required to be made of material that was identified before December 14, 1987, as friable Asbestos Containing Building Material (ACBM), including all Thermal System Insulation (TSI) or friable suspected ACBM **(*LAC 33:III.2723.D.2.e*)**.

Section B
Part I

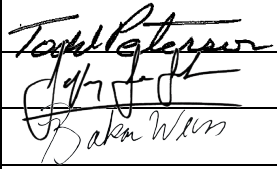
☐ Accreditation information for each person making assessment (***LAC 33:III.2723.D.2.e***):

Name	Accreditation No	State of Accreditation	Expiration Date	Signature

Section B
Part II

B. The following shall be included for each inspection conducted <u>after</u> December 14, 1987:

List the following information for each accredited inspector who performed the inspection and re-inspection(s). (***LAC 33:III.2707.A.2, 2705, 2709, & 2711***). At least once every three years after a management plan is in effect, each local education agency shall conduct a reinspection. (***LAC 33:III.2707.B.1***) At least once every six months after a management plan is in effect, each local education agency or the state government shall conduct periodic surveillance. (***LAC 33:III.2721.B.1***) Please attach a copy of each inspector's Louisiana DEQ accreditation certificate behind Section B, Part II.

Inspection/Re-inspection Date	Inspector's Name (Printed or Typed)	Louisiana Accreditation No	Inspector's Signature
See archive file data for records prior to 2016			
6/29/16	Troy Hawthorne	7I190801	N/A
8/5/19	Todd Peterson	0I165930	
8/31/22	Jeffrey Johnson	SI200444	
4/11/2025	Bakari Weiss	FI184724	

Calcasieu Parish School Board

Reinspection and Asbestos Management Plan Update – June 2025

for

Oak Park Elementary School

April 16, 2025

25007

Prepared by:

Chris White

Wynn L. White Consulting Engineers, Inc.
P.O. Box 83527
Baton Rouge, LA 70884-3527
(225) 761-9141
(225) 761-4450 Fax

WYNN L. WHITE CONSULTING ENGINEERS, INC.

I. Introduction

A. Summary

The visual re-inspection found non-friable materials in the facility. The non-friable ACBM, transite, is in good overall condition and may remain in the facility until its condition deteriorates or is affected by renovation or demolition.

B. Background

The Asbestos Hazard Emergency Response Act (AHERA) became law on October 12, 1986. The law required Environmental Protection Agency (EPA) to develop regulations addressing asbestos in schools. The Louisiana Legislature enacted Title 33, Environmental Quality, Part III Air, Chapter 27 Asbestos-Containing Materials in Schools and Public Buildings Regulations on September 20, 1989. The Louisiana act follows the AHERA regulations and applies to State owned or leased buildings. This re-inspection report is prepared according to AHERA and Louisiana guidelines.

II. Inspection Results

A. Purpose and Inspection Data

The purpose of the re-inspection is to locate and assess ACBM. The building was inspected, suspect materials located, and the condition assessed. The building was re-inspected to identify and assess asbestos containing building materials on April 11, 2025. The inspection and assessment were performed by Bakari Weiss, who is a Louisiana Department of Environmental Quality accredited Inspector (# FI184724).

B. Friable Asbestos Assessments

There is no friable ACBM in the facility.

III. Recommended Preventive Measures and Response Actions

The non-friable ACBM may remain in the facility as long as it is not subjected to any activity that may cause damage to its present condition or affected by renovation or demolition activities.

IV. Asbestos Remaining Upon Completion of Response Actions

The non-friable material is in good condition and may remain in the facility.

V. Re-inspection, Operation and Maintenance Activities, and Periodic Surveillance Implementation Schedule

Periodic Surveillance of the facility is required every six (6) months to assess the condition of the asbestos containing materials remaining in the building. Re-inspection is required every three (3) years until the asbestos containing materials are removed. Below is a schedule for periodic surveillance and re-inspection:

Periodic Surveillance	January 2026
Periodic Surveillance	July 2026
Periodic Surveillance	January 2027
Periodic Surveillance	July 2027
Periodic Surveillance	January 2028
Re-inspection	July 2028

VI. Information Program

Training of custodians or maintenance personnel is required if the building contains asbestos, and should be completed within thirty (30) days of employment. Documentation of training shall be placed with the Management Plan for the facility. Calcasieu Parish School Board shall notify in writing occupants of the building of the availability of the management plan.

VII. Resource Evaluation

The estimated annual cost for training and periodic surveillance is one thousand four hundred and fifty dollars ($1,450). The estimated cost to remove the asbestos containing materials, including consultant costs, is twelve thousand dollars ($12,000).

VIII. Consultant Data

Wynn L. White Consulting Engineers, Inc. used LDEQ accredited personnel to carry out the re-inspection of the facility. The following personnel were involved in preparation of the re-inspection report: Bakari Weiss (Inspector No. FI184724) and Chris White (Management Planner No. JP095575).

IX. Designated Person

Kenny Brown has been designated to see that the duties required by AHERA and LAC 33:III.Chapter 27.H are carried out. Mr. Brown’s office is located at 3310 Broad Street Lake Charles, LA 70602.

X. Conclusion

The re-inspection and assessment found non-friable asbestos containing materials. The non-friable ACBM is in good overall condition and they may remain in the facility until affected by renovation or demolition.

Asbestos Reinspection

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.
P.O.B. 83527
Baton Rouge, LA
70884
(225) 761-9141
Form 4.9.63.14

Campus Name: Oak Park Elementary

Campus Number: 114 Project Number: 25007

Inspector Name: Tuckerton

Building Number	Comments
2020	Transite in good condition. Non-friable.
2021	N/A
2022	N/A
2023	N/A
2024	N/A
2025	N/A
2026	N/A
2027	N/A
2028	N/A
	AM on site.
	No new or removed buildings.

Signature: Date: 04-11-25 Sheet 1 of 1

STATE OF LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY

certifies that

Bakari Weiss

Has complied with all requirements of the Louisiana Department of Environmental Quality and is authorized to perform the duties of

Asbestos Inspector

Accreditation No. FI184724 **AI No.** 184724

Date of Issuance February 27, 2025 **Expiration** February 12, 2026

Failure to comply with all applicable provisions of La. R.S. 2025.E. (1)(a) and La. R.S. 2025.F. (2)(a) may result in civil and/or criminal enforcement actions by the State.

Charles Finley

Permit Support Services Division
Office of Environmental Services

Section B
Part III

Sampling:

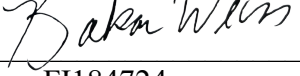
A. Attach a blueprint or diagram of the building which identifies each location where material was sampled for ACM. Assign a sample identifier to each sample collected.

Attach the document behind Section B, Part III. **(*LAC 33:III.2709 and 2723.D.3.b*)**

B. Attach a table of all the bulk samples collected, including the following: Attach the document behind Section B, Part III. **(*LAC 33:III.2709 and 2723.D.3.c*)**:
   1. The corresponding sample identifier.
   2. The approximate square or linear footage where material was sampled for ACM.
   3. The date of collection for each sample.
   4. Identify whether the sample collected was friable, nonfriable or assumed ACBM.
   5. Schematic of the building of floor documenting the location of the samples taken.

C. Describe the manner used to determine sampling location. Attach written statement behind Section B, Part III. **(*LAC 33:III.2709*)**

Name of Louisiana Inspector Collecting Samples: Bakari Weiss

Accredited Inspector's Signature: 

Louisiana Accreditation No: FI184724

Date of Expiration: 2/12/2026

Section B
Part IV

A. Laboratory and Analysis Information (*LAC 33:III.2711*)

In accordance with ***LAC 33:I.Chapter 45***, LELAP Accreditation is required by laboratories performing analysis. Attach a copy of the LELAP accreditation certificate and scope of accreditation behind Section B, Part III.
Attach a copy of the analyses of any bulk samples collected and analyzed. Place analyses report behind Section B, Part IV of the application. The Lab analysis **MUST** include the following:

☐ Name of Laboratory that analyzed the bulk samples;

☐ Address of Laboratory;

☐ Statement that Laboratory meets the requirements of ***LAC 33:III.2711.A***;

☐ Date of Report which meets the requirements of ***LAC 33:I.5313.A and 5313.B***;

☐ Name of person performing the analysis; and

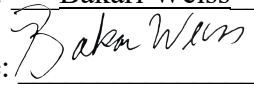
☐ Signature of person performing the analysis.

B. Assessment (*LAC 33:III.2713*)

Within 30 days of the assessment, an accredited inspector shall provide a written assessment required by ***LAC 33:III.2713*** for **all** ACBM and suspected ACBM assumed to be ACM. Classification shall be given as indicated in ***LAC 33:III.2713.B.1-7,*** e.g. indicate whether the ACM is damaged or significantly damaged thermal system insulation, damaged friable surfacing, etc. Write in space below or attach written statement behind Section B, Part IV.

☐ Check if there is no ACM is in the building:

Name of Louisiana Inspector Collecting Samples: Bakari Weiss

Accredited Inspector's Signature: 

Louisiana Accreditation No: FI184724

Date of Expiration: 2/12/2026

Post Office Box 83527
Baton Rouge, LA 70884-3527

WYNN L. WHITE CONSULTING ENGINEERS, INC.

October 2, 2023

Mr. Kenny Brown
Calcasieu Parish School Board
3310 Broad Street
Lake Charles, LA 70602
(sent via email)

RE: September 28, 2023 Oak Park Elementary 5th Grade Pod Asbestos Sampling 23013

Dear Kenny:

I have enclosed the analytical results for the asbestos bulk samples Todd Peterson, an accredited asbestos inspector, collected September 28, 2023. The building address is 2001 18th Street Lake Charles, LA 70601. This report is for your review and files.

CA Labs of Baton Rouge, LA analyzed the asbestos bulk samples using Polarized Light Microscopy (PLM). Laboratory analysis did not detect asbestos in the sampled materials.

Materials sampled include:

- Black tar material in the debris on the 5th grade pod roof

If you have questions or would like to discuss the project, please call me at (225) 761-9141 extension 2.

Very truly yours,

Wynn L. White Consulting Engineers, Inc.

Chris White

Chris White, P.E., LEED AP
Vice President

Enclosures: Homogeneous Area Sampling Log 9/28/23, Activity Documentation 9/28/23, CA Labs Report cbr23097570

Voice: (225) 761-9141
Fax: (225) 761-4450
www.wynnwhite.com

Homogeneous Material Sampling Log

Campus Name: Oak Park Elementary Campus Number: 114

Building Name: 5th Grade POD Building Number: 2027

Inspector Name: Todd Peterson Project Number: 23013

Date: 9/28/2023 Lab Report Number: Clar 23097570

WYNN L. WHITE CONSULTING ENGINEERS, INC.
P.O.B. 83527
Baton Rouge, LA 70884
(225) 761-9141
4.9.70.02
20220502

Material Description/Sample Location				Asbestos			Classification			Friability		General Condition		Approximate
Homogeneous Material Name	HMA No.	Sample No.	Location Room/Floor	K	A	N	SM	TSI	Misc	F	NF	Damaged	Significantly Damaged	Quantity SF/LF
Black Tar Material		092823TP01	Roof Debris			✓			X		X			
		092823TP02	Roof Debris			✓			X		X			
		092823TP03	Roof Debris			✓			X		X			

Inspector's Signature: Checked by: Baker Weiss

Documentation of Activities

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

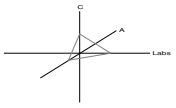
Client	CPSB
Contractor	NA
Contractor Supervisor	NA
Location	Oak Park Elementary
WLWCEI Project #:	23013
Date	09-28-23

8:45 A ON SITE. SIGN IN.
9:20 A ALL DECKING ACCESSED THROUGH SUSPENDED CEILING IS METAL.
9:40 A DECKING ON ROOF METAL. PILE OF REMOVED METAL DECKING ON GROUND CONTAINS A PIECE OF WOOD WITH BLACK TAR MATERIAL. SAMPLE.

Project Supervisor — Date: 09-28-23

CA Labs
Dedicated to Quality

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634



NVLAP #200772-0
TDSHS #300370
CDPHE #AL-18111
LELAP #03069

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Wynn L White Consulting
17485 Opportunity Ave. Suite 1-C
Baton Rouge, LA 70817

Customer Project: 23013_114_2027
Reference #: CBR23097570 Date: 9/29/2023

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be detectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

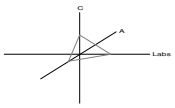
Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. This report is not covered by the scope of AIHA accreditation. Analysis performed at CA Labs, LLC 12232 Industriplex, Suite 32 Baton Rouge, LA 70809.

CA Labs
Dedicated to Quality

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634



NVLAP #200772-0
TDSHS #300370
CDPHE #AL-18111
LELAP #03069

Overview of Project Sample Material Containing Asbestos

Customer Project: 23013_114_2027 **CA Labs Project #:** CBR23097570

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate	pe - perlite	fg - fiberglass	pa - palygorskite (clay)
gypsum - gypsum	qu - quartz	mw - mineral wool	
bi - binder		wo - wollastinite	
or - organic		ta - talc	
ma - matrix		sy - synthetic	
mi - mica		ce - cellulose	
ve - vermiculite		br - brucite	
ot - other		ka - kaolin (clay)	

This report relates to the items tested. This report is not to be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, AIHA LAP, LLC, or any other agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. These results are submitted pursuant to CA Labs' current terms and sale, condition of sale, including the company's standard warranty and limitations of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping or handling fee may be assessed for the return of any samples.

CA Labs
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CA Labs, L.L.C.
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Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

NVLAP #200772-0
TDSHS #300370
CDPHE #AL-18111
LELAP #03069

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:**
Wynn L White Consulting
17485 Opportunity Ave. Suite 1-C
Baton Rouge, LA 70817

Phone # 225-445-6626
Fax #

Customer Project: 23013_114_2027

Turnaround Time: 4 hr

CA Labs Project #: CBR23097570

Date: 9/29/2023
Samples Received: 9/29/2023
Date Of Sampling: 9/28/2023
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
092823-TP01		*01-1*	*Black Tar*	*Y*	***None Detected***	2% ce	98% qu, bi
092823-TP02		*02-1*	*Black Tar*	*Y*	***None Detected***	2% ce	98% qu, bi
092823-TP03		*03-1*	*Black Tar*	*Y*	***None Detected***	2% ce	98% qu, bi

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Chris Williams
Analyst

Senior Analyst
Alicia Stretz

Laboratory Director
Chris Williams

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CBR23097570

CHAIN OF CUSTODY

PROJECT DATA	SHIPPING DATA	LABORATORY
Project No.:	**Samples Shipped via:** Drop box	**Name:** CA Labs LLC
23013_114_2027		**Address:** 12232 Industriplex Blvd
		Suite 32
Samples Collected by:		**City, State, Zip** Baton Rouge, LA 70809
Todd Peterson		**Samples Rec'd by:**
225-281-6888		Carli Brown **Signature**
Date: 09-28-23		**Date Received:** 9/29/23 8:00

SAMPLE IDENTIFICATION

092823TP01			
092823TP02			
092823TP03			

SPECIAL CONDITIONS OR COMMENTS

Analysis: ☐ TEM ☐ 7082 Lead ☐ Mold Air-O-Cell Volume:
☐ PCM ☐ TCLP Metals ☐ Mold Agar Plate or Rodac Plate
☒ PLM ☐ Other: _____ ☐ Mold Bulk or Swab
☐ Methamphetamine by GC/MS Special Detection Limit Req: _____ 0.5 ug/wipe _____ 0.1 ug/wipe

Requested Turnaround: ☐ 7 Day ☐ 24 Hour ☒ Other 4 hour
☐ 3 Day ☐ Same Day
☐ 6-10 Day ☐ 24-48 Hour

Total Number of Samples: 3

Comments/Instructions:

SEND RESULTS TO: ***cwhite@wynnwhite.com, dwhite@wynnwhite.com, sbezet@wynnwhite.com*** tpeterson@wynnwhite.com

Environmental • Health • Safety
Engineers • Trainers • Consultants

WYNN L. WHITE CONSULTING ENGINEERS, INC.

Form 4.9.80.2
Post Office Box 83527
Baton Rouge, LA 70884-3527
Voice Mail (225) 761-9141
Fax No. (225) 761-4450

Post Office Box 83527
Baton Rouge, LA 70884-3527

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

May 16, 2023

Mr. Kenny Brown
Calcasieu Parish School Board
3800 Mallard Cove Drive
Lake Charles, LA 70615
(sent via email)

RE: Oak Park Elementary Pipe Insulation 23013

Dear Kenny:

Recent assessment/observations of the asbestos containing thermal systems insulation (TSI) have led me to change my opinion on the hazard posed by the roof repair project. It turns out that the TSI is already damaged with a high potential for significant damage from the vibrations expected during the roof repair project.

I've enclosed project photographs showing the thermal systems insulation, as well as EPA Hazard Rank Guidelines for selecting asbestos response actions.

The photographs show damaged TSI and asbestos on the bar joists. Some of the pipe supports appear to connect to the bar joists and/or underside of the roof deck. Roof repair work will cause vibrations, and those vibrations will travel from the roof to the pipe supports and insulated pipes below.

I've changed my opinion on the TSI Hazard Rank from 5 to 6, with potential for significant damage. Significant damage would change the TSI Hazard Rank to 7.

EPA response action criteria for Hazard Ranks 6 and 7 include the following:

- removal of ACM or enclosure or encapsulation
- repair of thermal system insulation
- and O&M (Operations and Maintenance)

The programmed roof repair work will generate vibrations that could lead to significant damage to the insulation.

Voice: (225) 761-9141
Fax: (225) 761-4450
www.wynnwhite.com

On April 20, 2023 letter, I recommended removal of the asbestos containing thermal systems insulation from the Main Building and Multipurpose Building prior to performing the roofing work. That recommendation stands.

We have begun work on asbestos abatement design. We will work with you to select an asbestos abatement contractor, perform asbestos air monitoring/contractor observation during the work, and provide abatement construction period administration services. The conceptual budget and anticipated schedule are unchanged.

If you have questions or would like to discuss the project, please call me at 761-9141 extension 2.

Very truly yours,

Wynn L. White Consulting Engineers, Inc.

Chris White, P.E., LEED AP
Project Manager

Enclosures: As Stated

Voice: (225) 761-9141
Fax: (225) 761-4450
www.wynnwhite.com



Photo 1 – asbestos containing thermal systems insulation



Photo 2 – asbestos containing thermal systems insulation around bar joist and on roof insulation

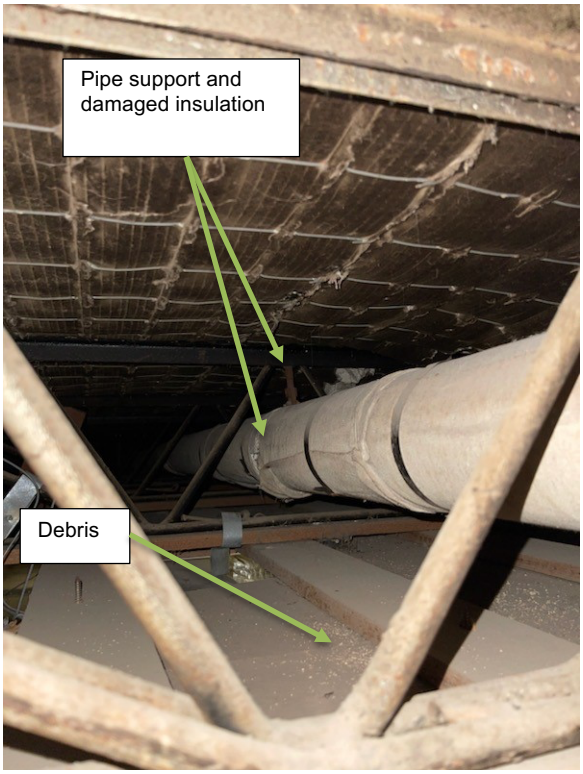


Photo 3 – asbestos containing thermal systems insulation, debris, and support

CLASSIFYING THE CONDITION OF SURFACING AND MISCELLANEOUS ACBM

Significantly Damaged

Material with one or more of the following characteristics:

* The surface crumbling or blistered over at least one tenth of the surface if the damage is evenly distributed (one quarter if the damage is localized).

* Large areas of material hanging from the surface, delaminated, or showing adhesive failure.

* Water stains, gouges, or mars over at least one tenth of the surface if the damage is evenly distributed (one quarter if the damage is localized).

Accumulation of powder, dust, or debris similar in appearance to the suspect material on surfaces beneath the material can be used as confirmatory evidence.

Damaged

Material with the following characteristics:

* The surface crumbling, blistered, water-stained, gouged, marred or otherwise abraded over less than one tenth of the surface if the damage is evenly distributed (one quarter if the damage is localized).

Accumulation of powder, dust or debris similar in appearance to the suspect material on surfaces beneath the material can be used as confirmatory evidence.

Good Condition

Material with no visible damage or deterioration or showing only very limited damage or deterioration.

CLASSIFYING THE CONDITION OF SURFACING AND MISCELLANEOUS TSI

Significantly Damaged

Material with one or more of the following characteristics:

* Mostly missing jackets.

* Crushed or heavily gouged or punctured insulation on at least one tenth of pipe runs/risers if the damage is evenly distributed (one quarter if the damage is localized).

Accumulation of powder, dust, or debris similar in appearance to the suspect material on surfaces beneath the pipe/boiler/tank/etc. can be used as confirmatory evidence.

Damaged

Material with one or more of the following characteristics:

* A few water stains or sections of missing jackets.

* Crushed insulation or water stains, gouges, punctures, or mars on up to one tenth of the insulation if the damage is evenly distributed (one quarter if the damage is localized).

Accumulation of powder, dust, or debris similar in appearance to the suspect material on surfaces beneath the pipe/boiler/tank/etc. can be used as confirmatory evidence.

Good Condition

Material with no visible damage or deterioration or showing only very limited damage or deterioration.

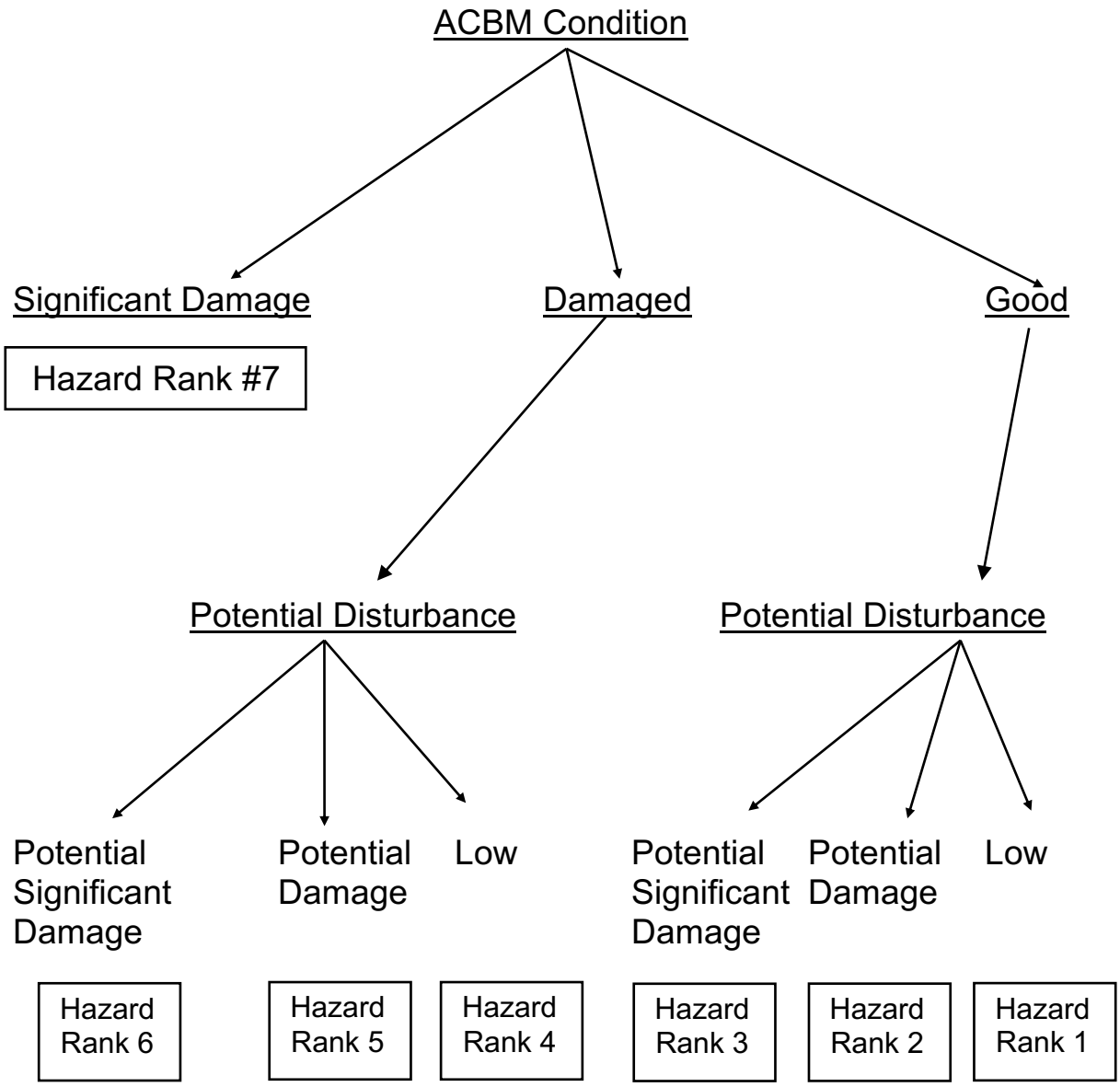
CLASSIFICATION FOR THE LEVEL OF POTENTIAL DISTURBANCE

Level of Potential Disturbance	Frequency of Potential Contract	Influence of Vibration	Potential for Air Erosion
Potential for Significant Damage	High	Any Value	Any Value
	Any Value	High	Any Value
	Any Value	Any Value	High
Potential for Damage	Moderate	Moderate or Low	Moderate or Low
	Moderate or Low	Moderate	Moderate or Low
	Moderate or Low	Moderate or Low	Moderate
	Low	Low	Low

RESPONSE ACTIONS BASED ON HAZARD RANKING

Hazard Rank	Removal Priority	AHERA Categories	Response Actions Required by AHERA
7	1	Significantly Damaged	Evacuate or isolate the area if needed. Remove the ACM, or enclose or encapsulate if sufficient to contain fibers. Repair of thermal system insulation is allowed if feasible and safe. O&M required for all ACBM.
6	2	Damaged + Potential for Significant Damage	Evacuate or isolate the area if needed. Remove, enclose, encapsulate, or repair to correct damage. Take steps to reduce potential for disturbance. O&M required for all ACBM.
5	3	Damaged + Potential for Damage	Remove, enclose, encapsulate, or repair to correct damage. O&M required for all ACBM.
4	4	Damaged	Same as hazard rank 5.
3	5	Potential for Significant Damage	Evacuate or isolate the area if needed. Take steps to reduce potential for disturbance O&M required for all ACBM.
2	6	Potential for Damage	O&M required for all ACBM.
1	7	No Problem	O&M required for all ACBM, but measures need not be as extensive as above.

DECISION TREE
CLASSIFICATION FOR HAZARD POTENTIAL



Post Office Box 83527
Baton Rouge, LA 70884-3527

WYNN L. WHITE CONSULTING ENGINEERS, INC.

April 10, 2023

Mr. Kenny Brown
Calcasieu Parish School Board
3310 Broad St
Lake Charles, LA 70602
(sent via email)

RE: April 4-5, 2023 Oak Park Elementary Asbestos Bulk Sampling Results 23013

Dear Kenny:

I have enclosed the analytical results for the asbestos bulk samples Jeffrey Johnson, an accredited asbestos inspector, collected April 4-5, 2023. This report is for your review and files.

CA Labs of Baton Rouge, LA analyzed the asbestos bulk samples using Polarized Light Microscopy (PLM)**.** The asbestos bulk samples were collected in the main building, 5th grade pod building, and multipurpose building. **Laboratory analysis detected asbestos in the insulation in the main building and in the transite outside the multipurpose building.**

Materials sampled for asbestos include:

- Flashing on the main building and 5th grade POD building
- Field samples in the 5th grade pod, main building, multipurpose building and covered patio.
- Transite outside the multipurpose building.
- 12” Blue floor tile in corridor near room 136 and room 177.
- Blue wall/vinyl base in corridor near room 135 and room 136.
- Expansion joint compound in room 179, room 154, and corridor near the exit.
- Wall plaster in the staff lounge and room 177.
- TSI Pipe Insulation in corridor near exit, near room 183, room 159, and janitor’s closet.

I recommend you have us work with you, CSRS, and the project architect to prepare asbestos abatement design documents, assist in selecting and Asbestos Abatement contractor, and provide asbestos air monitoring/contractor observation during the work.

If you have questions or would like to discuss the project, please call me at (225) 761-9141 extension 2.

Very truly yours,
Wynn L. White Consulting Engineers, Inc.

Chris White

Chris White, P.E., LEED AP
Vice President

Enclosures: Homogeneous Area Sampling Log 4/05/2023, Homogenous Material List 04/05/2023, Homogeneous Area Sampling Log 4/04/2023, Homogenous Material List 4/4/2023, Sample Location Sketches 4/05/2023, CA Labs Reports cbr23042333, cbr23042335, and cbr23042362

Voice: (225) 761-9141
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Homogeneous Material List

Campus Name: Oak Park Elementary Campus Number: 114

Building Name: Main Bldg Building Number: 203

Inspector Name: Jeffrey Johnson Project Number: 22008

Date: 09-05-23

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Homogeneous Material Name	HMA No.	Sample (Y/N)	Photo No.
Vinyl F.T.	01		1031494660
wall Base Blue vinyl	02		1031548815
expansion joint	03		130316666
wall material (Plaster) Staff Lodge	04		110301539
wall material (Plaster) corridor	05		1125569116
TSI pipe insulation	06		111142867
TBE straight runs	07		1335506108

Inspector's Signature: _____ Checked by: _____ Sheet 1 of 3

Homogeneous Material Sampling Log

Campus Name: Oak Park Elementary Campus Number: 114

Building Name: Main Bldg Building Number: 2021

Inspector Name: Jeffrey Johnson Project Number: 22008

Date: 04.05.23 Lab Report Number:

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(225) 761-9141
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Material Description/Sample Location				Asbestos			Classification			Friability		General Condition		Approximate
Homogeneous Material Name	HMA No.	Sample No.	Location Room/Floor	K	A	N	SM	TSI	Misc	F	NF	Damaged	Significantly Damaged	Quantity SF/LF
12" Blue F.T.	01	040523J11	corridor near R136						✓		✓	✓		
"	01	040523J12	corridor near R179						✓		✓	✓		
"	01	040523J13	corridor near speech R.						✓		✓	✓		
Blue wall vinyl Base	02	040523J14	corridor near 135						✓		✓	✓		
"	02	040523J15	corridor near 135						✓		✓	✓		
"	02	040523J16	room 136 closet						✓		✓	✓		
Expansion joint compound	03	040523J17	room 179				✓			✓			✓	
"	03	040523J18	room 154				✓			✓			✓	
"	03	040523J19	corridor near exit				✓			✓			✓	
Wall plaster	04	040523J20	staff lounge				✓				✓		✓	
"	04	040523J21	staff lounge				✓				✓		✓	
"	04	040523J22	staff lounge				✓				✓		✓	
wall plaster	05	040523J23	room 177 ext wall				✓				✓		✓	
	05	040523J24	room 177 ext wall				✓				✓		✓	
	05	040523J25	room 177 ext wall				✓				✓		✓	
TSI pipe insulation	06	040523J26	corridor near exit					✓		✓		✓		
elbow 90°	06	040523J27	room 159					✓		✓		✓		
	06	040523J28	corridor near R.103					✓		✓		✓		

Inspector's Signature: Checked by:

Homogeneous Material Sampling Log

Campus Name: Oak Park Elementary Campus Number: 114

Building Name: Main Bldg Building Number: 2021

Inspector Name: Jeremy Johnson Project Number: 22008

Date: 04-05-23 Lab Report Number:

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Baton Rouge, LA 70884
(225) 761-9141
4.9.70.02
20220502

Material Description/Sample Location				Asbestos			Classification			Friability		General Condition		Approximate
Homogeneous Material Name	HMA No.	Sample No.	Location Room/Floor	K	A	N	SM	TSI	Misc	F	NF	Damaged	Significantly Damaged	Quantity SF/LF
TSI pipe insulation (Straight run)	07	040523T29	Janitor's closet					✓		✓		✓		
	07	040523T30	Janitor's closet					✓		✓		✓		
	07	040523T31	Janitor's closet					✓		✓		✓		

Inspector's Signature: Checked by:

SAMPLE:

ROOF FIELD ✓

ROOF FLASHING ✓

EXTERIOR INSULATION AND MASTIC ✗ none

SOFFIT ✗ none

TECTUM ✗ none

NOTE TRANSITE
(see attached survey)

SAMPLE CEILING TILE ✓ HMA01 (052021BW1 - BW03) sampled already

SAMPLE FLOOR TILE 09 HMA (051921BW25) yellow F.T. 04 HMA light Blue F.T. 052021BW10 12" light Blue F.T.
02 HMA (052021BW04) Blue F.T. (J11 - J13) Resample yellow & Blue F.T.

SAMPLE EXPANSION JOINT 040523J17 - J19

SAMPLE BASE MATERIAL ✓ J14-J16

CHECK FOR TSI PIPE INSULATION
ABOVE SUSPENDED CEILING ✓ 040523J16-J28

Transite location

TSE sample area
Samples
040523J29-J31

CHECK FOR TSI IN
✓ JANITORS ROOM

✓ CHECK FOR CEILING
PLASTER ABOVE
DROP CEILING

Plaster exposed 12 s.f. missing

040523J14-J16
Base Blue vinyl

TSI pipe insulation sample
040523J28

TSI sample
040523J26

040523J23-J25

SAMPLE WALL MATERIAL
IN THIS AREA

040523J14-J19
expansion Joint

Girls R.R.

TSI sample
040523J27
90° elbow

040523J20-J22

SAMPLE WALL MATERIAL

Blue paint on canopy & gutter is OSHA lead
LR: 252102435

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◆ THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.
PHONE: (225) 761 - 9141
FAX: (225) 761 - 4450

CLIENT: CALCASIEU PARISH SCHOOL BOARD

PROJECT: OAK PARK ELEMENTARY SCHOOL

SHEET: ASBESTOS SAMPLING PLAN

CH: 22008-114

Date: 04-05-23

PROJECT NUMBER
20046
FACILITY NUMBER
114

REVISION		
NO.	DATE	BY

DRAWN BY:	JLY
CHECKED BY:	CMW
DATE:	3/31/2023
SCALE:	AS NOTED
SHEET	1 OF 1

Homogeneous Material List

Campus Name: Oak Park Elementary Campus Number: 114

Building Name: Main Bldg, 5th Grade Pod Bldg Building Number: [redacted] 2020

Inspector Name: Jeffrey Johnson Project Number: [redacted] 22008

Date: 04.04.23

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Baton Rouge, LA
70884
(225) 761-9141
4.9.70.03
20220502

Homogeneous Material Name	HMA No.	Sample (Y/N)	Photo No.
Flashing	01		10820503
Flashing	02		10940420
Flashing	03		10562493
Flashing	04		11044725
Flashing	05		11215249
Flashing	06		11261441
Flashing	07		11360028
Flashing	08		11463853
Flashing	09		11550650
Flashing	10		13208583
Flashing	11		13205961
Flashing	12		13280705
Field	13		13307700
Field	14		13380145
Field	15		13452036
Field	16		13555027
Field	17		14023481
Field	18		14092576
Field	19		14150819
Field	20		14192476
Field	21		14195040

Inspector's Signature: Jeffrey Johnson Checked by: Tony C Sheet 1 of 1

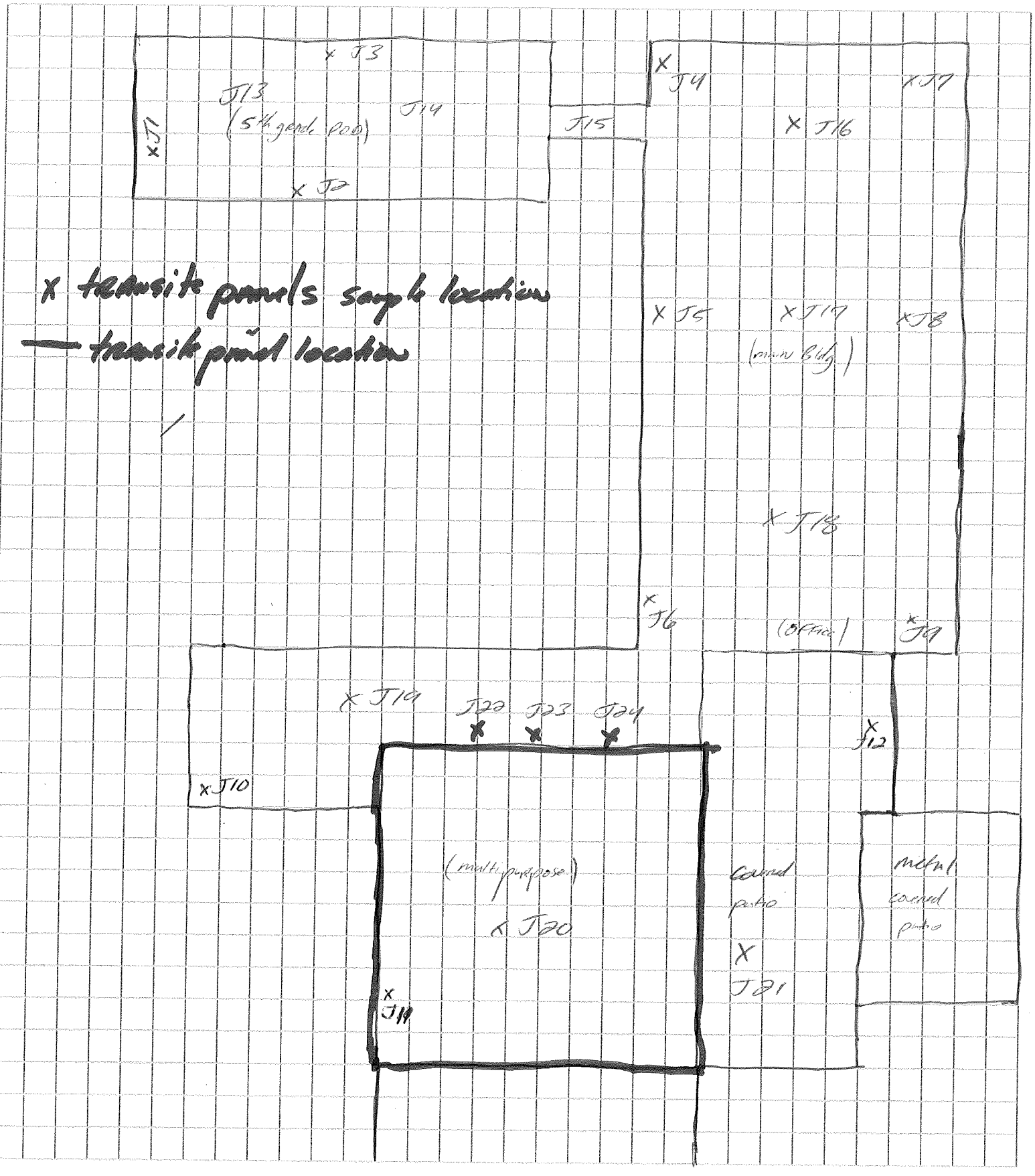
WYNN L. WHITE CONSULTING ENGINEERS, INC.

Project: Oak Park Elementary Project No.: 2203-114

Subject: Roof Flashing & Field sampling, sketch locations

Prepared By: Jeffrey Johnson Date: 04.04.23 Scale:

Checked By: [signature] Date: 04-05-23 Sheet 1 of 2



WYNN L. WHITE CONSULTING ENGINEERS, INC.

Project: Oak Park Elementary — Project No.: 22008-114

Subject: Roof sample numbers & location

Prepared By: [redacted] — Date: 04.04.23 — Scale:

Checked By: [redacted] — Date: 04-05-23 — Sheet 2 of 2

(Flashing Samples)

04042JJ1 5th Grade RoD (Flashing) north
04042JJ2 5th Grade RoD (Flashing) west
04042JJ3 5th Grade RoD (Flashing) east
04042JJ4 Main Bldg (Flashing) north east
04042JJ5 Main Bldg (Flashing) center
04042JJ6 Main Bldg (Flashing) north west
04042JJ7 Main Bldg (Flashing) south east
04042JJ8 Main Bldg (Flashing) south center
04042JJ9 main Bldg (Flashing) south west
04042JJ10 Main Bldg (Flashing) north east end
04042JJ11 multi purpose Bldg (Flashing) * note plywood underneath material
04042JJ12 [redacted] Bldg main covered patio (Flashing) plywood underneath material

(Field samples)

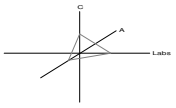
04042JJ13 5th Grade RoD Field (north)
04042JJ14 5th Grade RoD Field (center)
04042JJ15 5th Grade RoD Field (south)
04042JJ16 main Bldg Field (East end)
04042JJ17 main Bldg Field (center)
04042JJ18 main Bldg Field (west end)
04042JJ19 main Bldg Field (east end)
04042JJ20 multi purpose Field (center)
04042JJ21 covered patio Field

Multi purpose Bldg Transite Samples

04042JJ22 west of multi purpose
04042JJ23 north center of multi purpose
04042JJ24 north west of multi purpose

CA Labs
Dedicated to Quality

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634



NVLAP #200772-0
TDSHS #300370
CDPHE #AL-18111
LELAP #03069

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Wynn L White Consulting
17485 Opportunity Ave. Suite 1-C
Baton Rouge, LA 70817

Customer Project: 22008
Reference #: CBR23042333 Date: 4/6/2023

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be detectable by PLM analysis and should be analyzed by TEM bulk protocols.

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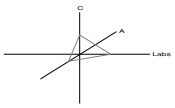
Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. This report is not covered by the scope of AIHA accreditation. Analysis performed at CA Labs, LLC 12232 Industriplex, Suite 32 Baton Rouge, LA 70809.

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CDPHE #AL-18111
LELAP #03069

Overview of Project Sample Material Containing Asbestos

Customer Project: 22008 **CA Labs Project #:** CBR23042333

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
				Gray Transite
040423J22	*22-1*	*Gray Transite*	***20% Chrysotile***	
040423J23	*23-1*	*Gray Transite*	***20% Chrysotile***	
040423J24	*24-1*	*Gray Transite*	***20% Chrysotile***	

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:**
Wynn L White Consulting
17485 Opportunity Ave. Suite 1-C
Baton Rouge, LA 70817

Phone # 225-445-6626
Fax #

Customer Project: 22008

CA Labs Project #: CBR23042333

Turnaround Time: 24 hr

Date: 4/6/2023
Samples Received: 4/5/2023
Date Of Sampling: 4/4/2023
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
040423J22		*22-1*	*Gray Transite*	*Y*	***20% Chrysotile***		80% qu, ma, ca
040423J23		*23-1*	*Gray Transite*	*Y*	***20% Chrysotile***		80% qu, ma, ca
040423J24		*24-1*	*Gray Transite*	*Y*	***20% Chrysotile***		80% qu, ma, ca

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

David Darby
Analyst

Senior Analyst
Alicia Stretz

Laboratory Director
Chris Williams

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
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4. Layer not analyzed - attached to previous positive layer and contamination is suspected
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7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CBR23042333

CHAIN OF CUSTODY

PROJECT DATA	SHIPPING DATA	LABORATORY
Project No.:	Samples Shipped via: Fed ex	Name: CA Labs LLC
~~22046-HG~~ AT 4.5.23		Address: 12232 Industriplex Blvd
22008		Suite 32
Samples Collected by:		City, State, Zip Baton Rouge, LA 70809
Jeffrey Johnson		Samples Rec'd by:
		Carli Bracey Signature
Date:		Date Received: 4/5/23 10:00

SAMPLE IDENTIFICATION

040423J22			
040423J23			
040423J24			

SPECIAL CONDITIONS OR COMMENTS

Analysis: ☐ TEM ☐ 7082 Lead ☐ Mold Air-O-Cell Volume:
☐ PCM ☐ TCLP Metals ☐ Mold Agar Plate or Rodac Plate
☒ PLM ☐ Other: _____ ☐ Mold Bulk or Swab
☐ Methamphetamine by GC/MS Special Detection Limit Req: _____ 0.5 ug/wipe _____ 0.1 ug/wipe

Requested Turnaround: ☐ 7 Day ☒ 24 Hour ☐ Other _____
☐ 3 Day ☐ Same Day
☐ 6-10 Day ☐ 24-48 Hour

Total Number of Samples: 3

Comments/Instructions:

SEND RESULTS TO: ***cwhite@wynnwhite.com, dwhite@wynnwhite.com, sbezet@wynnwhite.com*** jjohnson@wynnwhite.com

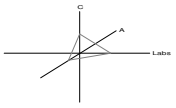
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WYNN L. WHITE CONSULTING ENGINEERS, INC.

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Baton Rouge, LA 70884-3527
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Fax No. (225) 761-4450

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Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

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Customer Project: 22008
Reference #: CBR23042335 Date: 4/6/2023

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Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

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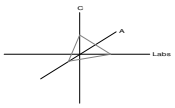
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NVLAP #200772-0
TDSHS #300370
CDPHE #AL-18111
LELAP #03069

Overview of Project Sample Material Containing Asbestos

Customer Project: 22008 **CA Labs Project #:** CBR23042335

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Phone # 225-445-6626
Fax #

Customer Project: 22008

CA Labs Project #: CBR23042335

Turnaround Time: 24 hr

Date: 4/6/2023
Samples Received: 4/5/2023
Date Of Sampling: 4/4/2023
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
040423J1		*1-1*	*Various Black Tar and Felt Layers*	*N*	***None Detected***	20% fg	80% qu, ma, bi
040423J2		*2-1*	*Various Black Tar and Felt Layers*	*N*	***None Detected***	20% fg	80% qu, ma, bi
040423J3		*3-1*	*Various Black Tar and Felt Layers*	*N*	***None Detected***	20% fg	80% qu, ma, bi
040423J4		*4-1*	*Black Tar and Felt*	*Y*	***None Detected***	5% fg	95% qu, ma, bi
		4-2	*White Insulation*	*Y*	***None Detected***		100% qu, ve, ca
		4-3	*Gray Insulation*	*Y*	***None Detected***	20% ce	80% qu, pe, ma
040423J5		*5-1*	*Black Tar and Felt*	*N*	***None Detected***	5% fg	95% qu, ma, bi

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Sidney Pinkerton
Analyst

Senior Analyst
Alicia Stretz

Laboratory Director
Chris Williams

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
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6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Date Of Sampling: 4/4/2023
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		5-2	*White Insulation*	*Y*	***None Detected***		100% qu, ve, ca
		5-3	*Gray Insulation*	*Y*	***None Detected***	20% ce	80% qu, pe, ma
040423J6		*6-1*	*Black Tar and Felt*	*N*	***None Detected***	5% fg	95% qu, ma, bi
		6-2	*White Insulation*	*Y*	***None Detected***		100% qu, ve, ca
		6-3	*Gray Insulation*	*Y*	***None Detected***	20% ce	80% qu, pe, ma
040423J7		*7-1*	*Black Tar and Felt*	*N*	***None Detected***	5% fg	95% qu, ma, bi
		7-2	*White Insulation*	*Y*	***None Detected***		100% qu, ve, ca

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

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Analyst

Senior Analyst
Alicia Stretz

Laboratory Director
Chris Williams

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8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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		7-3	*Gray Insulation*	*Y*	***None Detected***	20% ce	80% qu, pe, ma
040423J8		*8-1*	*Black Tar and Felt*	*N*	***None Detected***	5% fg	95% qu, ma, bi
		8-2	*Brown Insulation*	*Y*	***None Detected***	20% ce	80% qu, pe, ma
040423J9		*9-1*	*Black Tar and Felt*	*N*	***None Detected***	5% fg	95% qu, ma, bi
		9-2	*White Insulation*	*Y*	***None Detected***		100% qu, ve, ca
		9-3	*Brown Insulation*	*Y*	***None Detected***	20% ce	80% qu, pe, ma
040423J10		*10-1*	*Black Tar and Felt*	*N*	***None Detected***	5% fg	95% qu, ma, bi

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ma - matrix	qu - quartz	sy - synthetic	

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		10-2	*White Insulation*	*Y*	***None Detected***		100% qu, ve, ca
		10-3	*Brown Insulation*	*Y*	***None Detected***	20% ce	80% qu, pe, ma
040423J11		*11-1*	*Various Black Tar and Felt Layers*	*N*	***None Detected***	20% fg	80% qu, ma, bi
040423J12		*12-1*	*Various Black Tar and Felt Layers*	*N*	***None Detected***	20% fg	80% qu, ma, bi
040423J13		*13-1*	*Black Tar and Felt*	*N*	***None Detected***	5% fg	95% qu, ma, bi
		13-2	*Brown Insulation*	*Y*	***None Detected***	20% ce	80% qu, pe, ma
040423J14		*14-1*	*Black Tar and Felt*	*N*	***None Detected***	5% fg	95% qu, ma, bi

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9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

NVLAP #200772-0
TDSHS #300370
CDPHE #AL-18111
LELAP #03069

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:**
Wynn L White Consulting
17485 Opportunity Ave. Suite 1-C
Baton Rouge, LA 70817

Phone # 225-445-6626
Fax #

Customer Project: 22008

CA Labs Project #: CBR23042335

Turnaround Time: 24 hr

Date: 4/6/2023
Samples Received: 4/5/2023
Date Of Sampling: 4/4/2023
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		14-2	*Brown Insulation*	*Y*	***None Detected***	20% ce	80% qu, pe, ma
040423J15		*15-1*	*Black Tar and Felt*	*N*	***None Detected***	5% fg	95% qu, ma, bi
		15-2	*Brown Insulation*	*Y*	***None Detected***	20% ce	80% qu, pe, ma
040423J16		*16-1*	*Various Black Tar and Felt Layers*	*N*	***None Detected***	10% fg	90% qu, ma, bi
		16-2	*White Insulation*	*Y*	***None Detected***		100% qu, ve, ca
		16-3	*Brown Insulation*	*Y*	***None Detected***	20% ce	80% qu, pe, ma
040423J17		*17-1*	*Various Black Tar and Felt Layers*	*N*	***None Detected***	10% fg	90% qu, ma, bi

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Sidney Pinkerton
Analyst

Senior Analyst
Alicia Stretz

Laboratory Director
Chris Williams

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
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		17-2	*White Insulation*	*Y*	***None Detected***		100% qu, ve, ca
		17-3	*Brown Insulation*	*Y*	***None Detected***	20% ce	80% qu, pe, ma
040423J18		*18-1*	*Various Black Tar and Felt Layers*	*N*	***None Detected***	10% fg	90% qu, ma, bi
		18-2	*White Insulation*	*Y*	***None Detected***		100% qu, ve, ca
040423J19		*19-1*	*Various Black Tar and Felt Layers*	*N*	***None Detected***	10% fg	90% qu, ma, bi
		19-2	*White Insulation*	*Y*	***None Detected***		100% qu, ve, ca
		19-3	*Brown Insulation*	*Y*	***None Detected***	20% ce	80% qu, pe, ma

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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
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Purchase Order #:

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040423J20		*20-1*	*Various Black Tar and Felt Layers*	*N*	***None Detected***	10% fg	90% qu, ma, bi
040423J21		*21-1*	*Various Black Tar and Felt Layers*	*N*	***None Detected***	10% fg	90% qu, ma, bi

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
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CBR23042335

CHAIN OF CUSTODY

PROJECT DATA	SHIPPING DATA	LABORATORY
Project No.:	Samples Shipped via: Fedex	Name: CA Labs LLC
~~22008-144~~ NT 4-5-23		Address: 12232 Industriplex Blvd
22008		Suite 32
Samples Collected by:		City, State, Zip Baton Rouge, LA 70809
Jeffrey Johnson		Samples Rec'd by:
		Carol Bracey Signature
Date:		Date Received: 4/5/23 10:00

SAMPLE IDENTIFICATION

040423TI-J12	Flashing material		
040423TI3-J01	Field material		

SPECIAL CONDITIONS OR COMMENTS

Analysis: ☐ TEM ☐ 7082 Lead ☐ Mold Air-O-Cell Volume:
☐ PCM ☐ TCLP Metals ☐ Mold Agar Plate or Rodac Plate
☒ PLM ☐ Other: _____ ☐ Mold Bulk or Swab

☐ Methamphetamine by GC/MS Special Detection Limit Req: _____ 0.5 ug/wipe _____ 0.1 ug/wipe

Requested Turnaround: ☐ 7 Day ☒ 24 Hour ☐ Other _____
☐ 3 Day ☐ Same Day
☐ 6-10 Day ☐ 24-48 Hour

Total Number of Samples: 21

Comments/Instructions:

SEND RESULTS TO: *cwhite@wynnwhite.com, dwhite@wynnwhite.com, sbezet@wynnwhite.com* jjohnson@wynnwhite.com

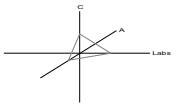
Environmental • Health • Safety
Engineers • Trainers • Consultants

WYNN L. WHITE CONSULTING ENGINEERS, INC.

Form 4.9.80.2
Post Office Box 83527
Baton Rouge, LA 70884-3527
Voice Mail (225) 761-9141
Fax No. (225) 761-4450

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NVLAP #200772-0
TDSHS #300370
CDPHE #AL-18111
LELAP #03069

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Wynn L White Consulting
17485 Opportunity Ave. Suite 1-C
Baton Rouge, LA 70817

Customer Project: 22008_114
Reference #: CBR23042362 Date: 4/6/2023

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be detectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. This report is not covered by the scope of AIHA accreditation. Analysis performed at CA Labs, LLC 12232 Industriplex, Suite 32 Baton Rouge, LA 70809.

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TDSHS #300370
CDPHE #AL-18111
LELAP #03069

Overview of Project Sample Material Containing Asbestos

Customer Project: 22008_114 **CA Labs Project #:** CBR23042362

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
040523-J26	*J26-1*	*White Insulation*	***10% Amosite***	***White Insulation*** ***Gray Insulation***
040523-J27	*J27-1*	*Gray Insulation*	***10% Amosite*** ***5% Chrysotile***	
040523-J28	*J28-1*	*Gray Insulation*	***10% Amosite*** ***5% Chrysotile***	

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate	pe - perlite	fg - fiberglass	pa - palygorskite (clay)
gypsum - gypsum	qu - quartz	mw - mineral wool	
bi - binder		wo - wollastinite	
or - organic		ta - talc	
ma - matrix		sy - synthetic	
mi - mica		ce - cellulose	
ve - vermiculite		br - brucite	
ot - other		ka - kaolin (clay)	

This report relates to the items tested. This report is not to be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, AIHA LAP, LLC, or any other agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. These results are submitted pursuant to CA Labs' current terms and sale, condition of sale, including the company's standard warranty and limitations of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping or handling fee may be assessed for the return of any samples.

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:**
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17485 Opportunity Ave. Suite 1-C
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Customer Project: 22008_114

Turnaround Time: 24 hr

CA Labs Project #: CBR23042362

Date: 4/6/2023
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Date Of Sampling: 4/5/2023
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
040523-J11		*J11-1*	*Tan Floor Tile*	*Y*	***None Detected***		100% qu, ca
		J11-2	*Black Mastic*	*Y*	***None Detected***		100% qu, bi
		J11-3	*Gray Leveling Plaster*	*Y*	***None Detected***		100% qu, ma, ca
040523-J12		*J12-1*	*Gray Floor Tile*	*Y*	***None Detected***		100% qu, ca
		J12-2	*Black Mastic*	*Y*	***None Detected***		100% qu, bi
040523-J13		*J13-1*	*Blue Floor Tile*	*Y*	***None Detected***		100% qu, ca
		J13-2	*Black Mastic*	*Y*	***None Detected***		100% qu, bi

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
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ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Sidney Pinkerton
Analyst

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Alicia Stretz

Laboratory Director
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040523-J14		*J14-1*	*Blue Cove Base*	*Y*	***None Detected***		100% qu, ma
		J14-2	*Yellow Mastic*	*Y*	***None Detected***		100% qu, bi
040523-J15		*J15-1*	*Blue Cove Base*	*Y*	***None Detected***		100% qu, ma
		J15-2	*Yellow Mastic*	*Y*	***None Detected***		100% qu, bi
040523-J16		*J16-1*	*Blue Cove Base*	*Y*	***None Detected***		100% qu, ma
		J16-2	*Yellow Mastic*	*Y*	***None Detected***		100% qu, bi
040523-J17		*J17-1*	*Tan Surfaced White Plaster*	*N*	***None Detected***		100% qu, ma, bi, ca

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040523-J18		*J18-1*	*White Plaster*	*Y*	***None Detected***		100% qu, ma, ca
040523-J19		*J19-1*	*Tan Surfaced White Plaster*	*N*	***None Detected***		100% qu, ma, bi, ca
040523-J20		*J20-1*	*Blue Surfaced White Compound*	*N*	***None Detected***		100% qu, mi, bi, ca
040523-J21		*J21-1*	*Blue Surfaced White Compound*	*N*	***None Detected***		100% qu, mi, bi, ca
		J21-2	*Green Surfaced Gray Plaster*	*N*	***None Detected***		100% qu, ma, bi, ca
040523-J22		*J22-1*	*Blue Surfaced White Compound*	*N*	***None Detected***		100% qu, mi, bi, ca
040523-J23		*J23-1*	*Gray Surfaced White Compound*	*N*	***None Detected***		100% qu, mi, bi, ca

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		J23-2	*Blue Surfaced White Plaster*	*N*	***None Detected***		100% qu, ma, bi, ca
040523-J24		*J24-1*	*Blue Surfaced White Plaster*	*N*	***None Detected***		100% qu, ma, bi, ca
040523-J25		*J25-1*	*Gray Surfaced White Compound*	*N*	***None Detected***		100% qu, mi, bi, ca
		J25-2	*Blue Surfaced White Plaster*	*N*	***None Detected***		100% qu, ma, bi, ca
040523-J26		*J26-1*	*White Insulation*	*Y*	***10% Amosite***		90% qu, ma, ca
040523-J27		*J27-1*	*Gray Insulation*	*Y*	***10% Amosite*** ***5% Chrysotile***		85% qu, ma, ca
040523-J28		*J28-1*	*Gray Insulation*	*Y*	***10% Amosite*** ***5% Chrysotile***		85% qu, ma, ca

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ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Sidney Pinkerton
Analyst

Senior Analyst
Alicia Stretz

Laboratory Director
Chris Williams

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

NVLAP #200772-0
TDSHS #300370
CDPHE #AL-18111
LELAP #03069

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:**
Wynn L White Consulting
17485 Opportunity Ave. Suite 1-C
Baton Rouge, LA 70817

Phone # 225-445-6626
Fax #

Customer Project: 22008_114

Turnaround Time: 24 hr

CA Labs Project #: CBR23042362

Date: 4/6/2023
Samples Received: 4/6/2023
Date Of Sampling: 4/5/2023
Purchase Order #:

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
040523-J29		*J29-1*	*Gray Wrap on Foil*	*N*	***None Detected***	60% ce	40% qu, ma, bi, ot
		J29-2	*Yellow Fibrous Insulation*	*Y*	***None Detected***	100% fg	
040523-J30		*J30-1*	*Gray Wrap on Foil*	*N*	***None Detected***	60% ce	40% qu, ma, bi, ot
		J30-2	*Yellow Fibrous Insulation*	*Y*	***None Detected***	100% fg	
040523-J31		*J31-1*	*Gray Wrap on Foil*	*N*	***None Detected***	60% ce	40% qu, ma, bi, ot
		J31-2	*Yellow Fibrous Insulation*	*Y*	***None Detected***	100% fg	

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Sidney Pinkerton
Analyst

Senior Analyst
Alicia Stretz

Laboratory Director
Chris Williams

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CBR23042362

CHAIN OF CUSTODY

PROJECT DATA	SHIPPING DATA	LABORATORY
Project No.:	Samples Shipped via: FedEx	Name: CA Labs LLC
23208-114		Address: 12232 Industriplex Blvd
		Suite 32
Samples Collected by:		City, State, Zip Baton Rouge, LA 70809
Wesley Johnson		Samples Rec'd by:
		Carli Brazey Signature
Date: 04-05-23		Date Received: 4/6/23 10:26

SAMPLE IDENTIFICATION

040523T11-T13			
040523T14-T16			
040523T17-T19			
040523T20-T22			
040523T23-T25			
040523T26-T28			
040523T29-T31			

SPECIAL CONDITIONS OR COMMENTS

Analysis: ☐ TEM ☐ 7082 Lead ☐ Mold Air-O-Cell Volume:
☐ PCM ☐ TCLP Metals ☐ Mold Agar Plate or Rodac Plate
☑ PLM ☐ Other: _____ ☐ Mold Bulk or Swab

☐ Methamphetamine by GC/MS Special Detection Limit Req: _____ 0.5 ug/wipe _____ 0.1 ug/wipe

Requested Turnaround: ☐ 7 Day ☑ 24 Hour ☐ Other _____
☐ 3 Day ☐ Same Day
☐ 6-10 Day ☐ 24-48 Hour

Total Number of Samples: 21

Comments/Instructions:

SEND RESULTS TO: cwhite@wynnwhite.com, dwhite@wynnwhite.com, sbezet@wynnwhite.com wjohnson@wynnwhite.com

Environmental • Health • Safety
Engineers • Trainers • Consultants

WYNN L. WHITE CONSULTING ENGINEERS, INC.

Form 4.9.80.2
Post Office Box 83527
Baton Rouge, LA 70884-3527
Voice Mail (225) 761-9141
Fax No. (225) 761-4450

Post Office Box 83527
Baton Rouge, LA 70884-3527

WYNN L. WHITE CONSULTING ENGINEERS, INC.

April 21, 2023

Mr. Kenny Brown
Calcasieu Parish School Board
3800 Mallard Cove Drive
Lake Charles, LA 70615
(sent via email)

RE: Oak Park Elementary Pipe Insulation 23013

Dear Kenny:

I recommend removal of the asbestos containing thermal systems insulation from the Main Building and Multipurpose Building prior to performing the roofing work. While the pipe insulation appears to be in good general condition, the programmed roof repair work may generate vibrations that could damage the insulation. If the roof work proceeds with the insulation in place and the insulation is damaged, asbestos containing materials could contaminate the building. The cleanup would disrupt the programmed roof repair work and result in additional project costs.

I recommend you have us begin asbestos abatement design, have us work with you to select an asbestos abatement contractor, perform asbestos air monitoring/contractor observation during the work, and provide abatement construction period administration services. We're ready to begin work based on your authorization to proceed.

The conceptual budget is below:

Item	Conceptual Budget Amount
Thermal Systems Insulation Abatement & Demolition to Access Materials (including 10% contingency)	$88,000.00
Asbestos Abatement Project Design	$5,000.00
Asbestos Air Monitoring/Contractor Observation (Estimated 45 day Abatement Period) & Clearance Sampling	$54,000.00
Total Conceptual Budget	$147,000.00

I anticipate we can have bid documents to you for review within two weeks of authorization to proceed, receive bids on or around May 19, 2023, abatement start on or around June 5, 2023, and abatement completion on or around July 19, 2023. and abatement could start on or around If you have questions or would like to discuss the project, please call me at 761-9141 extension 2.

Very truly yours,

Wynn L. White Consulting Engineers, Inc.

Chris White, P.E., LEED AP
Project Manager

Voice: (225) 761-9141
Fax: (225) 761-4450
www.wynnwhite.com

Post Office Box 83527
Baton Rouge, LA 70884-3527

WYNN L. WHITE CONSULTING ENGINEERS, INC.

April 19, 2021

Mr. Mark Sutton
Calcasieu Parish School Board
3800 Mallard Cove Drive
Lake Charles, LA 70615
(sent via email)

RE: April 2021 Oak Park Elementary Asbestos Bulk Sampling 20046

Dear Mark:

I have enclosed the analytical results for the asbestos bulk samples Bakari Weiss, an accredited asbestos inspector, collected on April 15, 2021. This report is for your review and files.

EMSL Analytical, Inc. of Baton Rouge, LA analyzed the asbestos samples using Polarized Light Microscopy (PLM). Laboratory analysis did not detect the presence of asbestos in sampled materials.

If you have questions or would like to discuss the project, please call me at (225) 761-9141 extension 2.

Very truly yours,

Wynn L. White Consulting Engineers, Inc.

Chris White, P.E., LEED AP
Project Manager

Enclosures: Asbestos Bulk Sample Data, EMSL Analytical, Inc. Report 252101746

Post Office Box 83527
Baton Rouge, LA 70884-3527

WYNN L. WHITE CONSULTING ENGINEERS, INC.

Sample Number	Material Description	Sample Location	Result
041521BW10	12” Green Floor Tile/Mastic	Room 159	No Asbestos Detected
041521BW11	12” Green-Floor Tile/Mastic	Room 159	No Asbestos Detected
041521BW12	12” Green-Floor Tile/Mastic	Room 159	No Asbestos Detected

Voice: (225) 761-9141
Fax: (225) 761-4450
www.wynnwhite.com

EMSL Analytical, Inc.

18369 Petroleum Drive Baton Rouge, LA 70809

Tel/Fax: (225) 755-1920 / (225) 755-1989

http://www.EMSL.com / batonrougelab@emsl.com

EMSL Order:	252101746
Customer ID:	WYNN50
Customer PO:	
Project ID:	

Attention:	Chris White	**Phone:**	(225) 445-6626
	Wynn L. White Consulting Engineers, Inc.	**Fax:**	
	PO Box 83527	**Received Date:**	04/16/2021 11:40 AM
	Baton Rouge, LA 70884-3527	**Analysis Date:**	04/16/2021
		Collected Date:	04/15/2021
Project:	20046 Oak Park Elem.		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
041521BW10-Floor Tile *252101746-0001*		Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
041521BW10-Mastic *252101746-0001A*		Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
041521BW11-Floor Tile *252101746-0002*		Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
041521BW11-Mastic *252101746-0002A*		Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
041521BW12-Floor Tile *252101746-0003*		Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
041521BW12-Mastic *252101746-0003A*		Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Tyler Pullig (6)

Jamie Laginess

Jamie Laginess, Laboratory Operations Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Baton Rouge, LA NVLAP Lab Code 200375-0, LELAP 01950, TX 300238

Initial report from: 04/16/2021 19:52:04

Post Office Box 83527
Baton Rouge, LA 70884-3527

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

August 4, 2021

Mr. Mark Sutton
Calcasieu Parish School Board
3800 Mallard Cove Drive
Lake Charles, LA 70615
(sent via email)

RE: July 26, 2021 Oak Park Elementary Asbestos Bulk Sampling 20046

Dear Mark:

I have enclosed the sample data and results for the asbestos bulk sampling Todd Peterson, an accredited asbestos inspector, collected July 26, 2021. This report is for your review and files.

EMSL Analytical, Inc. of Indianapolis, IN analyzed the asbestos bulk samples using Polarized Light Microscopy (PLM). Laboratory analysis did not detect the presence of asbestos in bulk samples. Sample data, locations, and results are attached to this letter.

The area samples included the 12” cream floor tile/mastic.

If you have questions or would like to discuss the project, please call me at (225) 761-9141 extension 2.

Very truly yours,

Wynn L. White Consulting Engineers, Inc.

Chris White, P.E.
Vice President

Enclosures: Asbestos Bulk samples 7/26/21, and EMSL Analytical, Inc. Reports 162116559

WYNN L. WHITE CONSULTING ENGINEERS, INC.

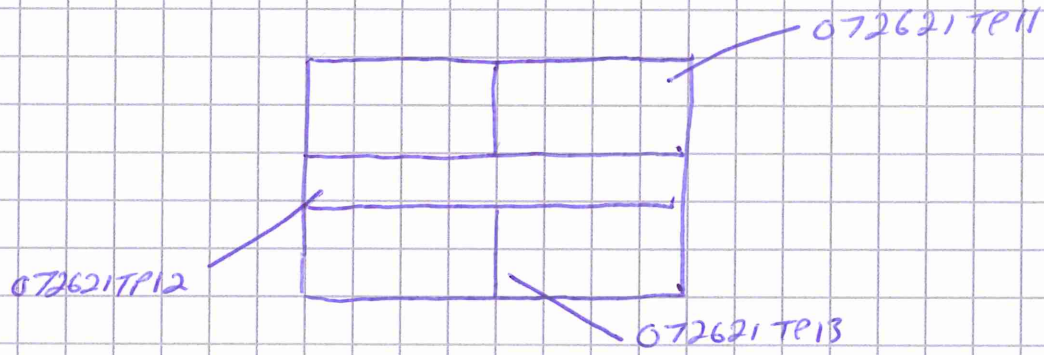
Project: Oak Park Elementary Project No.: 20046

Subject: POD 126-129 Floor Tile Sample Locations

Prepared By: Todd Peterson Date: 07-26-21 Scale: —

Checked By: CHRIS WHITE Date: 8/2/21 Sheet 1 of 1

12" Cream F.T.



FLOORING CONTRACTOR:
GREG BLUE
337 515 1273
CW

EMSL Analytical, Inc.

6340 CastlePlace Dr. Indianapolis, IN 46250

Tel/Fax: (317) 803-2997 / (317) 803-3047

http://www.EMSL.com / indianapolislab@emsl.com

EMSL Order:	162116559
Customer ID:	WYNN50
Customer PO:	
Project ID:	

Attention:	Diane White	**Phone:**	(225) 761-9141
	Wynn L. White Consulting Engineers, Inc.	**Fax:**	
	PO Box 83527	**Received Date:**	07/27/2021 10:05 AM
	Baton Rouge, LA 70884-3527	**Analysis Date:**	07/28/2021
		Collected Date:	07/26/2021
Project:	20046 - Oak Park Elementary		

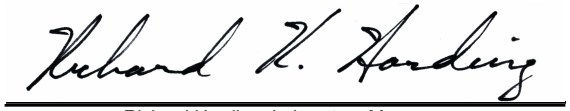
Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
072621TP11-Floor Tile *162116559-0001*		Peach Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
072621TP11-Mastic *162116559-0001A*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
072621TP12-Floor Tile *162116559-0002*		Peach Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
072621TP12-Mastic *162116559-0002A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
072621TP13-Floor Tile *162116559-0003*		Peach Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
072621TP13-Mastic *162116559-0003A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Craig Nixon (4)

Shannon Clegg (2)



Richard Harding, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations . The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 “Interim Method”) but augmented with procedures outlined in the 1993 (”final”) version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis . Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN NVLAP Lab Code 200188-0, AZ0939, CA 2575, CO AL-15132, TX 300262

Initial report from: 07/28/2021 13:01:22

OrderID: 162116559

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

162116559

CHAIN OF CUSTODY

PROJECT DATA	SHIPPING DATA	LABORATORY
Project No.(s):	Samples Shipped via: Fed Ex	Name: EMSL
20046		Address: 18369 Petroleum Drive
Oak Park Elementary		
Samples Collected by:		City, State, Zip Baton Rouge, LA 70809
Todd Peterson		Samples Rec'd by:
		Signature
Date: 07-26-21		Date Received: 7/27/21 10:05 AM

SAMPLE IDENTIFICATION

072621TP11			
072621TP12			
072621TP13			

SPECIAL CONDITIONS OR COMMENTS

Analysis: ☐ TEM ☐ 7082 Lead ☐ Mold Air-O-Cell Volume:
☐ PCM ☐ TCLP Metals ☐ Mold Agar Plate or Rodac Plate
☒ PLM ☐ Other: _____ ☐ Mold Bulk or Swab
☐ Methamphetamine by GC/MS Special Detection Limit Req: _____ 0.5 ug/wipe _____ 0.1 ug/wipe

Requested Turnaround: ☐ 7 Day ☒ 24 Hour ☐ Other _____
☐ 3 Day ☐ Same Day
☐ 6-10 Day ☐ 24-48 Hour

Total Number of Samples: 3

Comments/Instructions: Positive stop

SEND RESULTS TO: tpeterson@wynnwhite.com
cwhite@wynnwhite.com, dwhite@wynnwhite.com

Form 4.9.80

Post Office Box 83527
Baton Rouge, LA 70884-3527
Voice Mail (225) 761-9141
Fax No. (225) 761-4450

Post Office Box 83527
Baton Rouge, LA 70884-3527

WYNN L. WHITE CONSULTING ENGINEERS, INC.

May 27, 2021

Mr. Mark Sutton
Calcasieu Parish School Board
3800 Mallard Cove Drive
Lake Charles, LA 70615
(sent via email)

RE: May 2021 Oak Park Elementary Asbestos Bulk Sampling 20046

Dear Mark:

I have enclosed the analytical results for the asbestos bulk samples Bakari Weiss and Fred Washington, accredited asbestos inspectors, collected on May 12, 13, 19, and 20, 2021. This report is for your review and files.

EMSL Analytical, Inc. of Baton Rouge, LA analyzed the asbestos samples using Polarized Light Microscopy (PLM). Laboratory analysis did not detect the presence of asbestos in sampled materials. Sample data, locations, and results are attached to this letter. Asbestos management plan data shows other asbestos containing building materials present at the facility.

If you have questions or would like to discuss the project, please call me at (225) 761-9141 extension 2.

Very truly yours,

Wynn L. White Consulting Engineers, Inc.

Chris White, P.E., LEED AP
Project Manager

Enclosures: Asbestos Bulk Sample Data, EMSL Analytical, Inc. Reports 252102300, 252102319, 252102437, and 252102439

Voice: (225) 761-9141
Fax: (225) 761-4450
www.wynnwhite.com

Post Office Box 83527
Baton Rouge, LA 70884-3527

WYNN L. WHITE CONSULTING ENGINEERS, INC.

Sample Number	Material Description	Sample Location	Result
051321FW1	12” Peach Floor Tile	Pod Building – Room 126	No Asbestos Detected
051321FW2	12” Peach Floor Tile	Pod Building – Rooms 126-129 Hallway	No Asbestos Detected
051321FW3	12” Peach Floor Tile	Pod Building – Room 129	No Asbestos Detected
051321FW4	12” Tan with Black Specks Floor Tile	1st Grade Hall – Room 141	No Asbestos Detected
051321FW5	12” Tan with Black Specks Floor Tile	1st Grade Hall – Room 139	No Asbestos Detected
051321FW6	12” Tan with Black Specks Floor Tile	1st Grade Hall – Room 140	No Asbestos Detected
051321FW7	2’ x 2’ White Ceiling Tile	T-Building 134	No Asbestos Detected
051321FW8	2’ x 2’ White Ceiling Tile	T-Building 134	No Asbestos Detected
051321FW9	2’ x 2’ White Ceiling Tile	T-Building 133	No Asbestos Detected
051321FW10	Blue Lead Paint	North Entrance Canopy	No Asbestos Detected
051321FW11	Blue Lead Paint	North Entrance Canopy	No Asbestos Detected
051321FW12	Blue Lead Paint	North Entrance Canopy	No Asbestos Detected
051321FW13	White Paint	Main Entrance Canopy	No Asbestos Detected
051321FW14	White Paint	Main Entrance Office Canopy	No Asbestos Detected
051321FW15	White Paint	Main Entrance Middle Canopy	No Asbestos Detected
051321FW16	12” White with Blue Specks Floor Tile	Room 180	No Asbestos Detected
051321FW17	12” White with Blue Specks Floor Tile	Room 174	No Asbestos Detected
051321FW18	12” White with Blue Specks Floor Tile	Room 176	No Asbestos Detected
051321FW19	12” Dark Blue Floor Tile	Room 154	No Asbestos Detected
051321FW20	12” Dark Blue Floor Tile	Room 156	No Asbestos Detected
051321FW21	12” Dark Blue Floor Tile	Room 177	No Asbestos Detected
051321FW22	2’ x 2’ White Ceiling Tile	Room 180	No Asbestos Detected
051321FW23	2’ x 2’ White Ceiling Tile	Room 179	No Asbestos Detected

Voice: (225) 761-9141
Fax: (225) 761-4450
www.wynnwhite.com

Post Office Box 83527
Baton Rouge, LA 70884-3527

WYNN L. WHITE CONSULTING ENGINEERS, INC.

Sample Number	Material Description	Sample Location	Result
051321FW24	2’ x 2’ White Ceiling Tile	Room 156	No Asbestos Detected
051321FW25	12” Gray Floor Tile	Room 165	No Asbestos Detected
051321FW26	12” Gray Floor Tile	Room 173	No Asbestos Detected
051321FW27	12” Gray Floor Tile	Room 168	No Asbestos Detected
051921BW16	12” White with Gray Specks Floor Tile	Room 139	No Asbestos Detected
051921BW17	12” White with Gray Specks Floor Tile	Room 140	No Asbestos Detected
051921BW18	12” White with Gray Specks Floor Tile	Hallway in Front of Room 139	No Asbestos Detected
051921BW19	12” Pink Floor Tile	Room 129	No Asbestos Detected
051921BW20	12” Pink Floor Tile	Room 128	No Asbestos Detected
051921BW21	12” Pink Floor Tile	Room 116	No Asbestos Detected
051921BW22	12” Cream with Brown Specks Floor Tile	Room 129	No Asbestos Detected
051921BW23	12” Cream with Brown Specks Floor Tile	Room 129	No Asbestos Detected
051921BW24	12” Cream with Brown Specks Floor Tile	Room 129	No Asbestos Detected
051921BW25	12” Yellow Floor Tile	Room 128	No Asbestos Detected
051921BW26	12” Yellow Floor Tile	Room 128	No Asbestos Detected
051921BW27	12” Yellow Floor Tile	Room 128	No Asbestos Detected
051921BW28	12” Gray with Gray Specks Floor Tile	Room 139	No Asbestos Detected
051921BW29	12” Gray with Gray Specks Floor Tile	Room 139	No Asbestos Detected
051921BW30	12” Gray with Gray Specks Floor Tile	Room 138	No Asbestos Detected
052021BW01	2’ x 4’ White Ceiling Tile	Building 130	No Asbestos Detected
052021BW02	2’ x 4’ White Ceiling Tile	Building 130	No Asbestos Detected
052021BW03	2’ x 4’ White Ceiling Tile	Building 134	No Asbestos Detected
052021BW04	12” Dark Blue with White Specks Floor Tile	Corridor E	No Asbestos Detected
052021BW05	12” Dark Blue with White Specks Floor Tile	Corridor D	No Asbestos Detected

Voice: (225) 761-9141
Fax: (225) 761-4450
www.wynnwhite.com

Post Office Box 83527
Baton Rouge, LA 70884-3527

WYNN L. WHITE CONSULTING ENGINEERS, INC.

Sample Number	Material Description	Sample Location	Result
052021BW06	12” Dark Blue with White Specks Floor Tile	Corridor F	No Asbestos Detected
052021BW07	12” Yellow with Specks Floor Tile	Corridor D	No Asbestos Detected
052021BW08	12” Yellow with Specks Floor Tile	Corridor D	No Asbestos Detected
052021BW09	12” Yellow with Specks Floor Tile	Corridor F	No Asbestos Detected
052021BW10	12” Light Blue Floor Tile	Corridor F	No Asbestos Detected
052021BW11	12” Light Blue Floor Tile	Corridor F	No Asbestos Detected
052021BW12	12” Light Blue Floor Tile	Corridor F	No Asbestos Detected
052021BW13	12” Blue Lead Chips / Paint	Canopy	No Asbestos Detected
052021BW14	12” Blue Lead Chips / Paint	Canopy	No Asbestos Detected
052021BW15	12” Blue Lead Chips / Paint	Canopy	No Asbestos Detected
052021BW16	12” Blue Lead Chips / Paint	Gutters	No Asbestos Detected
052021BW17	12” Blue Lead Chips / Paint	Gutters	No Asbestos Detected
052021BW18	12” Blue Lead Chips / Paint	Gutters	No Asbestos Detected
052021BW19	2’ x 2’ White Ceiling Tile	Room 159	No Asbestos Detected
052021BW20	2’ x 2’ White Ceiling Tile	Corridor D	No Asbestos Detected
052021BW21	2’ x 2’ White Ceiling Tile	Corridor F	No Asbestos Detected

Voice: (225) 761-9141
Fax: (225) 761-4450
www.wynnwhite.com

EMSL Analytical, Inc.

18369 Petroleum Drive Baton Rouge, LA 70809

Tel/Fax: (225) 755-1920 / (225) 755-1989

http://www.EMSL.com / batonrougelab@emsl.com

EMSL Order:	252102300
Customer ID:	WYNN50
Customer PO:	
Project ID:	

Attention:	Chris White	**Phone:**	(225) 445-6626
	Wynn L. White Consulting Engineers, Inc.	**Fax:**	
	PO Box 83527	**Received Date:**	05/13/2021 10:00 AM
	Baton Rouge, LA 70884-3527	**Analysis Date:**	05/13/2021
		Collected Date:	05/12/2021
Project:	20046 Oak Park Elementary		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
051221FW16-Floor Tile *252102300-0001*		White/Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW16-Mastic *252102300-0001A*		Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW17-Floor Tile *252102300-0002*		White/Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW17-Mastic *252102300-0002A*		Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW18-Floor Tile *252102300-0003*		White/Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW18-Mastic *252102300-0003A*		Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW19-Floor Tile *252102300-0004*		Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW19-Mastic *252102300-0004A*		Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW20-Floor Tile *252102300-0005*		Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW20-Mastic *252102300-0005A*		Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW21-Floor Tile *252102300-0006*		Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW21-Mastic *252102300-0006A*		Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW22 *252102300-0007*		Tan Fibrous Homogeneous	45% Cellulose 10% Glass	45% Non-fibrous (Other)	None Detected
051221FW23 *252102300-0008*		Tan Fibrous Homogeneous	45% Cellulose 10% Glass	45% Non-fibrous (Other)	None Detected
051221FW24 *252102300-0009*		Tan Fibrous Homogeneous	45% Cellulose 10% Glass	45% Non-fibrous (Other)	None Detected
051221FW25-Floor Tile *252102300-0010*		Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/13/2021 16:04:23

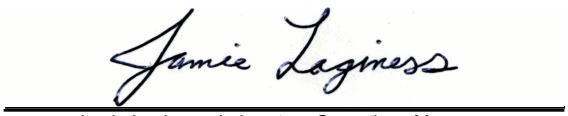
EMSL Analytical, Inc.
18369 Petroleum Drive Baton Rouge, LA 70809
Tel/Fax: (225) 755-1920 / (225) 755-1989
http://www.EMSL.com / batonrougelab@emsl.com

EMSL Order:	252102300
Customer ID:	WYNN50
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
051221FW25-Mastic *252102300-0010A*		Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW26-Floor Tile *252102300-0011*		Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW26-Mastic *252102300-0011A*		Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW27-Floor Tile *252102300-0012*		Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051221FW27-Mastic *252102300-0012A*		Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)
Tyler Pullig (21)



Jamie Laginess, Laboratory Operations Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Baton Rouge, LA NVLAP Lab Code 200375-0, LELAP 01950, TX 300238

Initial report from: 05/13/2021 16:04:23

OrderID: 252102300

2300

WYNN L. WHITE CONSULTING ENGINEERS, INC.

For Office Use Only:		
Project Mgr:		
Accounting:		
Project File:		

CHAIN OF CUSTODY

PROJECT DATA	SHIPPING DATA	LABORATORY
Project No.(s): 20046	Samples Shipped via: FedEx	Name: EMSL Analytical, Inc.
Oak Park Elementary	Hand	Address: 18369 Petroleum Drive
Samples Collected by:	Date Relinquished to Shipper:	City, State, Zip Baton Rouge, LA 70809
Fred Washington	N/A	Samples Rec'd by: L. Brown (Signature)
Date: 05/12/21		Date Received: 5/13/21 @ 10:00 am

SAMPLE IDENTIFICATION

051221 FW16 - 051221FW18			
051221 FW19 - 051221FW21			
051221FW22 - 051221 FW24			
051221 FW25 - 051221FW27			

SPECIAL CONDITIONS OR COMMENTS

Analysis:
- ☐ TEM ☐ 7082 Lead ☐ Mold Air-O-Cell
- ☐ PCM ☐ TCLP Metals ☐ Mold Agar Plate or Rodac Plate
- (KB) ☒ PLM ☐ Other: _____ ☐ Mold Bulk or Swab
- ☐ Methamphetamine by GC/MS Special Detection Limit Req: ____ 0.5 ug/wipe ____ 0.1 ug/wipe

Requested Turnaround:
- ☐ 7 Day (KB) ☒ 24 Hour ☐ Other _____
- ☐ 3 Day ☐ Same Day
- ☐ 6-10 Day ☐ 24-48 Hour

Total Number of Samples: 12

Comments/Instructions: (KB) Positive Stop

SEND RESULTS TO: cwhite@wynnwhite.com AND dwhite@wynnwhite.com

Environmental Engineers

Post Office Box 83527
Baton Rouge, LA 70884-3527
Voice Mail (225) 761-9141
Fax No. (225) 761-4450

(E) 1961 1347 8463
1 of 2

EMSL Analytical, Inc.

18369 Petroleum Drive Baton Rouge, LA 70809

Tel/Fax: (225) 755-1920 / (225) 755-1989

http://www.EMSL.com / batonrougelab@emsl.com

EMSL Order:	252102319
Customer ID:	WYNN50
Customer PO:	
Project ID:	

Attention:	Chris White	**Phone:**	(225) 445-6626
	Wynn L. White Consulting Engineers, Inc.	**Fax:**	
	PO Box 83527	**Received Date:**	05/14/2021 10:00 AM
	Baton Rouge, LA 70884-3527	**Analysis Date:**	05/14/2021
		Collected Date:	05/13/2021
Project:	20046 Oak Park Elementary		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
051321FW1-Floor Tile *252102319-0001*		Peach Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051321FW1-Adhesive *252102319-0001A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051321FW2-Floor Tile *252102319-0002*		Peach Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051321FW2-Adhesive *252102319-0002A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051321FW3-Floor Tile *252102319-0003*		Peach Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051321FW3-Adhesive *252102319-0003A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051321FW4-Floor Tile *252102319-0004*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051321FW4-Adhesive *252102319-0004A*		Brown/Yellow Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
051321FW5-Floor Tile *252102319-0005*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051321FW5-Adhesive *252102319-0005A*		Brown/Yellow Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
051321FW6-Floor Tile *252102319-0006*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051321FW6-Adhesive *252102319-0006A*		Brown/Yellow Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
051321FW7 *252102319-0007*		Tan Fibrous Homogeneous	45% Cellulose 15% Glass	40% Non-fibrous (Other)	None Detected
051321FW8 *252102319-0008*		Tan Fibrous Homogeneous	45% Cellulose 15% Glass	40% Non-fibrous (Other)	None Detected
051321FW9 *252102319-0009*		Tan Fibrous Homogeneous	45% Cellulose 15% Glass	40% Non-fibrous (Other)	None Detected
051321FW10 *252102319-0010*		Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/17/2021 09:30:07

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EMSL Order:	252102319
Customer ID:	WYNN50
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
051321FW11		Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
252102319-0011					
051321FW12		Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
252102319-0012					
051321FW13		Tan/White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
252102319-0013					
051321FW14		Tan/White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
252102319-0014					
051321FW15		Tan/White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
252102319-0015					

Analyst(s)
Tyler Pullig (21)

Jamie Laginess

Jamie Laginess, Laboratory Operations Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Baton Rouge, LA NVLAP Lab Code 200375-0, LELAP 01950, TX 300238

Initial report from: 05/17/2021 09:30:07

OrderID: 252102319

2319

WYNN L. WHITE CONSULTING ENGINEERS, INC.

For Office Use Only:		
Project Mgr:		
Accounting:		
Project File:		

CHAIN OF CUSTODY

PROJECT DATA	SHIPPING DATA	LABORATORY
Project No.(s): 20046	Samples Shipped via:	Name: EMSL Analytical, Inc.
Oak Park Elementary	Hand	Address: 18369 Petroleum Drive
Samples Collected by:	Date Relinquished to Shipper:	City, State, Zip Baton Rouge, LA 70809
Fred Washington	N/A	Samples Rec'd by: L. Brown (Signature)
Date: 5-13-21		Date Received: 5/14/21 @ 10:00 am

SAMPLE IDENTIFICATION

051321FW1 - 051321FW3			
051321FW4 - 051321FW6			
051321FW7 - 051321FW9			
051321FW10 - 051321FW12			
051321FW13 - 051321FW15			

SPECIAL CONDITIONS OR COMMENTS

Analysis:
- ☐ TEM
- ☐ PCM
- ☒ PLM (#8)
- ☐ 7082 Lead
- ☐ TCLP Metals
- ☐ Other: _____
- ☐ Mold Air-O-Cell
- ☐ Mold Agar Plate or Rodac Plate
- ☐ Mold Bulk or Swab

Requested Turnaround:
- ☐ 7 Day
- ☐ 3 Day
- ☐ 6-10 Day
- ☒ 24 Hour (#8)
- ☐ Same Day
- ☐ 24-48 Hour
- ☐ Other _____

Total Number of Samples: 15

Comments/Instructions: (#8) Positive Stop

SEND RESULTS TO: cwhite@wynnwhite.com AND dwhite@wynnwhite.com

Post Office Box 83527
Baton Rouge, LA 70884-3527
Voice Mail (225) 761-9141
Fax No. (225) 761-4450

Environmental Engineers

(E) 7961 1347 8820

2 of 3

EMSL Analytical, Inc.

18369 Petroleum Drive Baton Rouge, LA 70809

Tel/Fax: (225) 755-1920 / (225) 755-1989

http://www.EMSL.com / batonrougelab@emsl.com

EMSL Order:	252102437
Customer ID:	WYNN50
Customer PO:	
Project ID:	

Attention:	Chris White	**Phone:**	(225) 445-6626
	Wynn L. White Consulting Engineers, Inc.	**Fax:**	
	PO Box 83527	**Received Date:**	05/20/2021 3:45 PM
	Baton Rouge, LA 70884-3527	**Analysis Date:**	05/21/2021
		Collected Date:	05/20/2021
Project:	20046 Oak Park Elem		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
052021BW1 *252102437-0001*		Tan/White Fibrous Homogeneous	40% Cellulose 20% Glass	40% Non-fibrous (Other)	None Detected
052021BW2 *252102437-0002*		Tan/White Fibrous Homogeneous	40% Cellulose 20% Glass	40% Non-fibrous (Other)	None Detected
052021BW3 *252102437-0003*		Tan/White Fibrous Homogeneous	40% Cellulose 20% Glass	40% Non-fibrous (Other)	None Detected
052021BW4-Floor Tile *252102437-0004*		Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
052021BW4-Mastic *252102437-0004A*		Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
052021BW5-Floor Tile *252102437-0005*		Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
052021BW5-Mastic *252102437-0005A*		Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
052021BW6-Floor Tile *252102437-0006*		Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
052021BW6-Mastic *252102437-0006A*		Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
052021BW7-Floor Tile *252102437-0007*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
052021BW7-Mastic *252102437-0007A*		Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
052021BW8-Floor Tile *252102437-0008*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
052021BW8-Mastic *252102437-0008A*		Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
052021BW9-Floor Tile *252102437-0009*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
052021BW9-Mastic *252102437-0009A*		Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
052021BW10-Floor Tile *252102437-0010*		Gray/Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/21/2021 16:52:50

EMSL Analytical, Inc.
18369 Petroleum Drive Baton Rouge, LA 70809
Tel/Fax: (225) 755-1920 / (225) 755-1989
http://www.EMSL.com / batonrougelab@emsl.com

EMSL Order:	252102437
Customer ID:	WYNN50
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
052021BW10-Mastic *252102437-0010A*		Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
052021BW11-Floor Tile *252102437-0011*		Gray/Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
052021BW11-Mastic *252102437-0011A*		Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
052021BW12-Floor Tile *252102437-0012*		Gray/Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
052021BW12-Mastic *252102437-0012A*		Black Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
052021BW19 *252102437-0013*		Tan/White Fibrous Homogeneous	40% Cellulose 20% Glass	40% Non-fibrous (Other)	None Detected
052021BW20 *252102437-0014*		Tan/White Fibrous Homogeneous	40% Cellulose 20% Glass	40% Non-fibrous (Other)	None Detected
052021BW21 *252102437-0015*		Tan/White Fibrous Homogeneous	40% Cellulose 20% Glass	40% Non-fibrous (Other)	None Detected

Analyst(s)
Jurnee West (24)

Jamie Laginess

Jamie Laginess, Laboratory Operations Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 “Interim Method”) but augmented with procedures outlined in the 1993 (”final”) version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Baton Rouge, LA NVLAP Lab Code 200375-0, LELAP 01950, TX 300238

Initial report from: 05/21/2021 16:52:50

OrderID: 252102437

2437

WYNN L. WHITE CONSULTING ENGINEERS, INC.

For Office Use Only:		
Project Mgr:		
Accounting:		
Project File:		

CHAIN OF CUSTODY

PROJECT DATA	SHIPPING DATA	LABORATORY
Project No.(s):	Samples Shipped via:	Name: EMSL Analytical, Inc.
20046	Hand	Address: 18369 Petroleum Drive
OAK Park Elem		
Samples Collected by:	Date Relinquished to Shipper:	City, State, Zip Baton Rouge, LA 70809
Barbara Weiss	N/A	Samples Rec'd by: K. Brown
		Signature
Date: 5-20-21		Date Received: 5/20/21 @ 3:45pm

SAMPLE IDENTIFICATION			
052021 Bw 1-3			
052021 Bw 4-6			
052021 Bw 7-9			
052021 Bw 10-12			
052021 Bw 19-21			

SPECIAL CONDITIONS OR COMMENTS

Analysis:
- ☐ TEM
- ☐ PCM
- ☑ PLM
- ☐ 7082 Lead
- ☐ TCLP Metals
- ☐ Other: _____
- ☐ Mold Air-O-Cell
- ☐ Mold Agar Plate or Rodac Plate
- ☐ Mold Bulk or Swab

Requested Turnaround:
- ☐ 7 Day
- ☐ 3 Day
- ☐ 6-10 Day
- ☑ 24 Hour
- ☐ Same Day
- ☐ 24-48 Hour
- ☐ Other _____

Total Number of Samples: 15

Comments/Instructions:

SEND RESULTS TO: cwhite@wynnwhite.com AND dwhite@wynnwhite.com bweiss@wynnwhite.com

Wack It
Environmental Engineers

Post Office Box 83527
Baton Rouge, LA 70884-3527
Voice Mail (225) 761-9141
Fax No. (225) 761-4450

EMSL Analytical, Inc.

18369 Petroleum Drive Baton Rouge, LA 70809

Tel/Fax: (225) 755-1920 / (225) 755-1989

http://www.EMSL.com / batonrougelab@emsl.com

EMSL Order:	252102439
Customer ID:	WYNN50
Customer PO:	
Project ID:	

Attention:	Chris White	**Phone:**	(225) 445-6626
	Wynn L. White Consulting Engineers, Inc.	**Fax:**	
	PO Box 83527	**Received Date:**	05/20/2021 3:45 PM
	Baton Rouge, LA 70884-3527	**Analysis Date:**	05/21/2021
		Collected Date:	05/19/2021
Project:	20046 OAK Park Elem.		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
051921BW16-Floor Tile *252102439-0001*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW16-Adhesive *252102439-0001A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW16-Leveler *252102439-0001B*		White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW17-Floor Tile *252102439-0002*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW17-Adhesive *252102439-0002A*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW18-Floor Tile *252102439-0003*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW18-Adhesive *252102439-0003A*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW19-Floor Tile *252102439-0004*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW19-Adhesive *252102439-0004A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW20-Floor Tile *252102439-0005*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW20-Adhesive *252102439-0005A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW21-Floor Tile *252102439-0006*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW21-Adhesive *252102439-0006A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW22-Floor Tile *252102439-0007*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW22-Adhesive *252102439-0007A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW23-Floor Tile *252102439-0008*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/21/2021 13:15:15

EMSL Analytical, Inc.
18369 Petroleum Drive Baton Rouge, LA 70809
Tel/Fax: (225) 755-1920 / (225) 755-1989
http://www.EMSL.com / batonrougelab@emsl.com

EMSL Order:	252102439
Customer ID:	WYNN50
Customer PO:	
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
051921BW23-Adhesive *252102439-0008A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW24-Floor Tile *252102439-0009*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW24-Adhesive *252102439-0009A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW25-Floor Tile *252102439-0010*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW25-Adhesive *252102439-0010A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW26-Floor Tile *252102439-0011*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW26-Adhesive *252102439-0011A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW27-Floor Tile *252102439-0012*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW27-Adhesive *252102439-0012A*		Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW28-Floor Tile *252102439-0013*		Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW28-Adhesive *252102439-0013A*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW29-Floor Tile *252102439-0014*		Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW29-Adhesive *252102439-0014A*		Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW30-Floor Tile *252102439-0015*		Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
051921BW30-Adhesive *252102439-0015A*		Tan/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 05/21/2021 13:15:15

EMSL Analytical, Inc.
18369 Petroleum Drive Baton Rouge, LA 70809
Tel/Fax: (225) 755-1920 / (225) 755-1989
http://www.EMSL.com / batonrougelab@emsl.com

EMSL Order:	252102439
Customer ID:	WYNN50
Customer PO:	
Project ID:	

Analyst(s)
Jurnee West (31)

Jamie Laginess

Jamie Laginess, Laboratory Operations Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 “Interim Method”) but augmented with procedures outlined in the 1993 (”final”) version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Baton Rouge, LA NVLAP Lab Code 200375-0, LELAP 01950, TX 300238

Initial report from: 05/21/2021 13:15:15

OrderID: 252102439

2439

WYNN L. WHITE CONSULTING ENGINEERS, INC.

For Office Use Only:		
Project Mgr:		
Accounting:		
Project File:		

CHAIN OF CUSTODY

PROJECT DATA	SHIPPING DATA	LABORATORY
Project No.(s):	Samples Shipped via:	Name: EMSL Analytical, Inc.
20046	Hand	Address: 18369 Petroleum Drive
OAK Park Elem.		
Samples Collected by:	Date Relinquished to Shipper:	City, State, Zip Baton Rouge, LA 70809
Barbara Weiss	N/A	Samples Rec'd by: K. Brown
		Signature
Date: 5-19-21		Date Received: 5/20/21 @ 3:45pm

SAMPLE IDENTIFICATION			
051921 BW 16-18			
051921 BW 19-21			
051921 BW 22-24			
051921 BW 25-27			
051921 BW 28-30			

SPECIAL CONDITIONS OR COMMENTS

Analysis:	☐ TEM	☐ 7082 Lead	☐ Mold Air-O-Cell
	☐ PCM	☐ TCLP Metals	☐ Mold Agar Plate or Rodac Plate
	☑ PLM	☐ Other: _____	☐ Mold Bulk or Swab
Requested Turnaround:	☐ 7 Day	☑ 24 Hour	☐ Other _____
	☐ 3 Day	☐ Same Day	
	☐ 6-10 Day	☐ 24-48 Hour	

Total Number of Samples: 15

Comments/Instructions:

SEND RESULTS TO: cwhite@wynnwhite.com AND dwhite@wynnwhite.com bweiss@wynnwhite.com

Walker
Environmental Engineers

Post Office Box 83527
Baton Rouge, LA 70884-3527
Voice Mail (225) 761-9141
Fax No. (225) 761-4450

Section C

DESIGNATED PERSON
(LAC 33:III.2705.A.7 and 2705.A.8)

Name of Designated Person:	Kenny Brown
Address of Designated Person:	3310 Broad Street Lake Charles, LA 70602
Phone Number:	337-309-0608
Fax Number:	337-437-1293
E-mail of Designated Person:	Kenny.Brown@cpsb.org

Attach copy of the training certificate received by the Designated Person from a recognized trainer. Place the certificate behind Section C. You may find a list of Training Providers that teach this course on the Asbestos Web page at http://www.deq.louisiana.gov/portal/tabid/2883/Default.aspx.

Course Name:	Asbestos Designated Person Training
Date of Training:	1/10/2024
Length of Training (hours):	8
Training Organization:	Wynn L White Consulting Engineers
Instructor(s):	Wynn White

WYNN L. WHITE CONSULTING ENGINEERS, INC.

certifies that

Kenny Brown

has completed the requisite training for accreditation as required under LAC 33:III. Chapter 27, 2705.8 and TSCA Title II

Asbestos Designated Person Training

Course Completion Date: 1/10/2024
Examination Date: 1/10/2024
Granted: 1/22/2024

Chris White

Chris White, P.E.

Certificate No. _____

WYNN L. WHITE CONSULTING ENGINEERS INC.

Sponsored by:
Wynn L. White Consulting Engineers, Inc.
Post Office Box 83527
Baton Rouge, LA 70884-3527
Phone: (225) 761-9141
Fax: (225) 761-4450
Email: wwhite@wynnwhite.com

Helping companies that want to protect their employees and managers who want to cut environmental and safety costs.

STATE OF LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY

certifies that

Wynn L White

Has complied with all requirements of the Louisiana Department of Environmental Quality and is authorized to perform the duties of

Asbestos Trainer - Contractor/Supervisor - Initial, Contractor/Supervisor - Refresher, Inspector - Initial, Inspector - Refresher, Management Planner - Initial, Management Planner - Refresher, Project Designer - Initial, Project Designer - Refresher, Worker - Initial, Worker - Refresher

Accreditation No. FT095572 **AI No.** 95572

Date of Issuance February 10, 2025 **Expiration** February 10, 2026

Failure to comply with all applicable provisions of La. R.S. 2025.E. (1)(a) and La. R.S. 2025.F. (2)(a) may result in civil and/or criminal enforcement actions by the State.

Charles Finley

Permit Support Services Division
Office of Environmental Services

DESIGNATED PERSON GENERAL RESPONSIBILITIES UNDER
LAC 33:III.Chapter 27

Pursuant to ***LAC 33:III.2705.A*** and ***LAC 33:III.2723.H*** of the Louisiana Air Quality Regulations, (Asbestos-Containing Materials in Schools and State Buildings), each Management Plan must contain a true and correct statement, signed by the Designated Person, that certifies that the general Management Plan responsibilities have been met. This form is provided to assist you in complying with this portion of ***LAC 33:III.Chapter 27***.

School/Agency:	Oak Park Elementary School	
Building Address:	2001 18th Street Lake Charles, LA 70601	
Designated Person:	Kenny Brown	
Designated Person's Address:	3310 Broad Street	
City: Lake Charles	State: LA	City: Lake Charles
Phone No: 337-309-0608	Email: Kenny.brown@cpsb.org	

ASSURANCES

This asbestos Management Plan was developed and has been submitted pursuant to ***LAC 33:III.Chapter 27*** of the Louisiana Air Regulations, Asbestos-Containing Materials is Schools and States Buildings, and the undersigned does hereby certify that the Designated Person has and will ensure the following:

☒ 1) The activities of any person, who performs inspections, re-inspections, and periodic surveillance, develops and updates Management Plans, and develops and implements response actions, including operations and maintenance, are carried out in accordance with ***LAC 33:III.Chapter 27***.

☒ 2) All custodial and maintenance employees are properly trained as required in ***LAC 33:III.Chapter 27*** and all other applicable federal and/or state regulations (e.g., the Occupational Safety and Health Administration Asbestos Standard for Construction, the EPA Worker Protection Rule, or applicable state regulations).

☒ 3) All workers and building occupants, or their legal guardians, are informed annually about inspections, response actions, post-response action activities, including periodic re-inspection, if applicable, and surveillance activities, that are planned or in progress.

☒ 4) All short-term workers (e.g., telephone repair workers, utility workers, or exterminators etc.) who may come in contact with asbestos in a school are provided information regarding the locations of ACBM and suspected ACBM assumed to be ACM.

☒ 5) All warning labels are posted in accordance with ***LAC 33:III.2727***.

☒ 6) All management plans are available for inspection and that notification of such availability has been provided as specified in the Management Plan under ***LAC 33:III.2723.F***.

☒ 7) The undersigned Designated Person pursuant to ***LAC 33:III.2705.A.7*** received adequate training as stipulated in ***LAC 33:III.2705.A.8***.

☒ 8) The Designated Person will consider whether any conflict of interest may arise from the interrelationship among accredited personnel and whether that should influence the selection of accredited personnel to perform activities under ***LAC 33:III.Chapter 27***.

Signature: _____ Phone No: 337-309-0608

Designated Person, pursuant to ***LAC 33:III.2723.H***

Fax No. _____

Email Address: kenny.brown@cpsb.org

Section D

RESPONSE ACTIONS

A. Attach recommendations made to the **local education agency** (LEA) regarding Response Actions under ***LAC 33:III.2717***. Attach recommendations behind Section D.

☐ Check if the building is **NOT** used for Educational purposes.

☐ Check if there is no ACM in the building.

Name of Person Making Recommendation: Chris White, P.E.

Recommendation Person's Signature: Chris White

Louisiana DEQ Accreditation No: JP095575

Date of Expiration: 1/17/2026

Section D

B. Provide the following written detailed description of preventive measures/response actions to be taken for any friable ACBM, including the following: **(*LAC 33:III.2723.D.6)*** Recordkeeping Requirements are to be maintained as part of the management plan ***(LAC 33:III.2725*)**

Methods to be used	
Location where measure or action will be taken	
Reason for selecting response action or preventive measure	
Beginning date	

Section D

C. Provide a detailed description in the form of blueprint, diagram, or written location description of ACBM, or assumed ACM, that does or will remain after response action. Attachment, if any should be placed behind Section D. **(*LAC 33:III.2723.D.8*)**

☐ Check if there is no ACM in the building.

D. The undersigned does hereby certify that he/she is accredited under the provision of Appendix A of ***LAC 33:III.2799.Appendix A***. (This applies to the person who inspected for ACBM and who will design or carry out response action, except O & M). **(*LAC 33:III.2723.D.*7)**

Louisiana Accredited Inspector's Name: Bakari Weiss

Inspector's Signature: Bakari Weiss

Louisiana DEQ Accreditation No: FI184724

Date of Expiration: 2/12/2026

Louisiana Accredited Project Designer's Name: _____

Project Designer's Signature: _____

Louisiana DEQ Accreditation No: _____

Date of Expiration: _____

A thorough asbestos inspection is required before any renovation or demolition work begins, regardless of the building’s age or the installation date of materials.

Section E

ACTIVITY PLANS
(*LAC 33:III.2723.D.9*)

☐ Check if there is no ACM in the building.

If there is ACM in the building, attach the following:

A. Attach a written plan for Re-inspection behind Section E (Required only for schools, including post graduate facilities, i.e. universities, etc. in accordance with ***LAC 33:III.2707***).

B. Attach a written plan for Periodic Surveillance behind Section E (Required for all schools and state owned, leased, or otherwise used buildings ***LAC 33:III.2721.B***).

C. Attach a copy of the Operations and Maintenance plan behind Section E. The O & M plan must be completed in accordance with ***LAC 33:III.2719***.

D. Attach a copy of the Management Planner's recommendation regarding additional cleaning under ***LAC 33:III.2719.C.2*** as part of an operations, maintenance, and repair program.

E. Attach a copy of the Response to the Management Planner's recommendation by the local education agency (LEA) or owner or responsible party of the state owned, leased or used building.

Section E Additional Data

Periodic Surveillance/Reinspection Plan:

Periodic Surveillance: January 2026

Periodic Surveillance: July 2026

Periodic Surveillance: January 2027

Periodic Surveillance: July 2027

Periodic Surveillance: January 2028

Reinspection: July 2028

Management planner's recommendation regarding additional cleaning: None at this time.

Response to management planner's recommendation regarding additional cleaning: not yet programmed.

Section F

NOTIFICATIONS AND RESOURCES EVALUATION

Attach the following behind Section F:

NOTIFICATION

Attach a copy of the notification letter sent to parents, teachers, and employees concerning the availability of the Management Plan, including any response actions or activities that took place. Attach behind Section F. **(*LAC 33:III.2723.F.4 and LAC 33:III.2723.D.10*)**

RESOURCES EVALUATION

Attach an evaluation of resources needed to complete response actions successfully and carry out re-inspection(s), operations and maintenance activities, periodic surveillance, and training. Attach behind Section F. **(*LAC 33:III.2723.D.11*)**

Section F Additional Data

Resource Evaluation:

Reinspection conceptual budget: $350

Operations and Maintenance conceptual budget: $500 implementation

Annual Periodic Surveillance conceptual budget: $300

Annual training conceptual budget: $300

Asbestos Abatement Conceptual Budget (Construction): $12,000

POLICIES

CPSB makes asbestos management plan availability notification via the school board's website, on the policy>asbestos management plan page. https://www.cpsb.org/Page/37732

ASBESTOS MANAGEMENT PLAN

The Calcasieu Parish School Board has retained Wynn L. White Consulting Engineers, Inc. to re-inspect all Calcasieu Parish School Board school facilities for the presence of asbestos containing materials. The work consisted of evaluating asbestos containing materials identified during previous inspections, identifying materials suspected of containing asbestos, sampling those materials, analyzing the samples, making a hazard assessment, making recommendations, and preparing Asbestos Management Plan updates.

The asbestos management plan for each facility is on file at the facility and at the following location:

Wynn L. White Consulting Engineers, Inc.
P.O. Box 83527
Baton Rouge, LA 70884-3527
Phone: 225-761-9141 extension 2
Fax: 225-761-4450
Attn: Chris White, P.E.
Email: ***cwhite@wynnwhite.com***

TRANSMITTAL LETTER

DATE: September 23, 2015

TO: All Principals and Building supervisors

From: Mitch Trahan

Planning & construction/ AHERA

P.O. Box 800

Lake Charles, La.70602

We transmit the attached correspondence, directives or documents for your information. If you have any questions or comments fell free to contact me.

DESCRIPTION:

PLEASE POST THE ATACHED NOTIFICATION FOR THE PUBLIC

This is a requirement of the EP and DEQ offices.

Mitch Trahan

Mitch Trahan, Planning & construction/ AHERA

MT/eg

Enclosures:

Cc: Mr. Karl Bruchhaus

File

Calcasieu Parish School Board

BUILDING FOUNDATIONS FOR THE FUTURE

Karl Bruchhaus, Superintendent

TO: Parents and Staff of Calcasieu Parish Schools

FROM: Mitch Trahan, Planning & construction / AHERA

DATE: September 23, 2015

In compliance with the U>S> Environmental Protection Agency 9EPA) Asbestos Hazard Response Act (AHERA), in the fall of 1988 we performed inspections of each of our school buildings for asbestos-containing building materials. The inspection findings and asbestos management plans have been on file in each school administrative office since that time.

The EPA requires us to perform I inspections of the asbestos materials every three years. During the month of August 1988, accredited asbestos inspectors performed these inspections. An accredited management planner reviewed the results of the inspections and recommend actions we should take to safely manage each asbestos material in our buildings.

As designated and responsible person for the asbestos program for the Calcasieu Parish Schools, I agree with recommendations of Wynn White, Management Planner, for response actions he has recommended in the reinspections plans. I will follow his guidelines and time table for the removal of asbestos and continue our Operations and Management Program as set forth in the reinspection plan.

The results of the reinspections are on file in the management plan in the school's administrative office. Everyone is welcome to view these anytime during the normal school hours (M-F, 8:00 AM - 3:30 PM). The Asbestos Program Manager, Mitch Trahan, is available to answer any questions you may have about asbestos in our buildings at (337) 217-4350 Ext. 5104.

Sincerely,

Mitch Trahan

Mitch Trahan

Planning & Construction/ AHERA

MT/eg

Cc: File

Calcasieu Parish School Board

BUILDING FOUNDATIONS FOR THE FUTURE

Karl Bruchhaus, Superintendent

August 10, 2015

PUBLIC NOTICE

Public notice is hereby given that in compliance with the Asbestos Hazard Emergency Response Act (AHERA) of 1986, asbestos management plans for Calcasieu Parish Schools are available at the various schools and facilities upon request.

Gary Anderson
Assistant Superintendent
Human Resources/Auxiliary Services

Publish: American Press and Southwest Daily News
August 14, 21, 28, 2015

Administrative Offices 3310 Broad Street Lake Charles, LA 70615 Phone 337.217.4000 Fax 337.217.4051

ActivePaper™

Publication: American Press; Date: Aug 14, 2015; Section: Classified; Page: D4

LEGALS

NOTICE TO CONTRACTORS

Sealed BIDS for the construction of the following project will be received by the Lake Charles Harbor and Terminal District, 751 Bayou Pines East, Suite A, Lake Charles, LA 70601, until 10:00 A.M. Central Standard Time on August 28, 2015, at which time and place bids will be publically opened and read. No bids will be received after 10:00 A.M.

PORT IMPROVEMENTS TO NEW WALL @ BT-1 STACKER LOCATED IN: CALCASIEU PARISH Port Project No. CP14002

Type of Construction: Heavy Construction
Contracting Agency: Lake Charles Harbor and Terminal District
751 Bayou Pines East, Suite P, Lake Charles, LA 70601
(337) 439-3661 Phone
Proposal Guaranty: 5% of Amount of Bid
Estimated Construction Cost: $700,000
Engineer: ReCon Engineering
1907 Ruth Street
Sulphur, LA 70663
(337) 583-4662 Phone
(337) 583-7566 Fax

Copies of the CONTRACT DOCUMENTS may be obtained at the office of Lake Charles Harbor & Terminal District located at 751 Bayou Pines East, Suite P, Lake Charles, LA. 70601 upon payment of $100 (refundable) for each set. Deposits on the first set of documents furnished to prime bidders shall be fully refunded upon return of the documents no later than ten days after receipt of bids. On other sets of documents furnished to bidders, the deposit less the actual cost of reproduction, shall be refunded upon return of the documents no later than ten days after receipt of bids. Contract Documents may also be downloaded at www.bidexpress.com.

Bids must be submitted on the forms provided by the Contracting Agency, must be prepared in accordance with Section 2 of the 2009 Edition of the Louisiana Department of Transportation and Development, Office of Public Works and Intermodal Transportation, General Provisions and must include all the information required by the bid form. Bid forms are available from Contracting Agency and will not be issued later than 24 hours prior to the time set for opening the bids. Each bid shall include a proposal guaranty in an amount not less than specified above.

The contract will be awarded to the lowest responsible bidder without discrimination on grounds of race, color, sex or national origin. Disadvantaged businesses will be afforded full opportunity to submit bids.

The award of a contract, if awarded, will be made to the lowest qualified bidder whose proposal complies with all requirements prescribed within 45 calendar days after opening proposals. However, when the contract is to be financed by bonds which are required to be sold after receipts of bids, or when the contract is to be financed in whole or part by federal or other funds not available at the time bids are received, the time will not start until receipt of federal and/or state concurrence or concurrence of the other funding source. Award will be within 30 calendar days after the sale of bonds or receipt of concurrence in award from federal and/or state agency or other funding source. The successful bidder will be notified by letter mailed to the address shown in the proposal that the bidder is awarded the contract.

The provisions and requirements of LA R.S. 38:2212; and those stated in the Bidding Documents shall not be waived by any entity, per LA R.S. 38:22.12.B(1) as revised by ACT No. 159. Neither can any or all bids be rejected, other than for just cause as allowed by LA R.S. 38:2214.

/s/ William J. Rase, III,
Executive Director
Lake Charles Harbor and Terminal District

Jul 24,31, Aug 7,14 4t
00923306

NOTICE BY OWNER OF ACCEPTANCE OF WORK

This is to advise that the contract

PUBLIC NOTICE

Public notice is hereby given that in compliance with the Asbestos Hazard Emergency Response Act (AHERA) of 1986, asbestos management plans for Calcasieu Parish Schools are available at the various schools and facilities upon request.

Gary Anderson
Assistant Superintendent
Human Resources/ Auxiliary Services

Aug 14,21,28 3t
00925931

Friday, August 21, 2015

PUBLIC NOTICE P u b l i c n o t i c e i s hereby given that in compliance with the Asbestos Hazard Emergency Response Act (AHERA) of 1986, asbestos management plans for Calcasieu Parish Schools are available at the various schools and facilities upon request. Gary Anderson Assistant Superintendent Human Resources/ Auxiliary Services Aug 14,21,28 3t 00925931

D4 AMERICAN PRESS FRIDAY AUGUST 28, 2015

PUBLIC NOTICE

Public notice is hereby given that in compliance with the Asbestos Hazard Emergency Response Act (AHERA) of 1986, asbestos management plans for Calcasieu Parish Schools are available at the various schools and facilities upon request.

Gary Anderson
Assistant Superintendent
Human Resources/ Auxiliary Services

Aug 14,21,28 3t
00925931

Affidavit of Publication

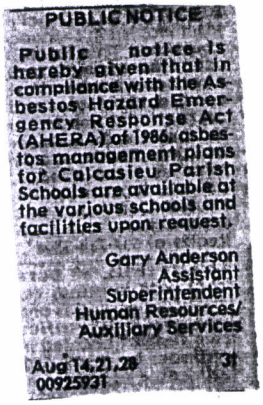
STATE OF LOUISIANA
Parish of Calcasieu

Before me the undersigned authority, personally came and appeared

Linda Graham

who being duly sworn, deposes and says:

He/She is a duly authorized agent of
LAKE CHARLES AMERICAN PRESS
a newspaper published daily at 4900 Highway 90 East,
Lake Charles, Louisiana, 70615. (Mail address: P.O. Box 2893
Lake Charles, LA 70602)



PUBLIC NOTICE

Public notice is hereby given that in compliance with the Asbestos Hazard Emergency Response Act (AHERA) of 1986, asbestos management plans for Calcasieu Parish Schools are available at the various schools and facilities upon request.

Gary Anderson
Assistant Superintendent
Human Resources/
Auxiliary Services

Aug 14,21,28 31
00925931

The attached Notice was published in said newspaper in its issue(s) dated:

00925931 - $25.00
August 14, 2015,
August 21, 2015,
August 28, 2015

Linda Graham
Duly Authorized Agent

Subscribed and sworn to before me on this 28th day of August, 2015 at Lake Charles, LA

Becky R. Venissat
Notary Public

06100179

CALCASIEU PARISH SCHOOL

BECKY R. VENISSAT
Notary Public
State of Louisiana
Calcasieu Parish
Notary ID # 8546
My Commission Expires At Death

Calcasieu Parish School Board

BUILDING FOUNDATIONS FOR THE FUTURE

Karl Bruchhaus, Superintendent

August 10, 2015

PUBLIC NOTICE

Public notice is hereby given that in compliance with the Asbestos Hazard Emergency Response Act (AHERA) of 1986, asbestos management plans for Calcasieu Parish Schools are available at the various schools and facilities upon request.

Gary Anderson
Assistant Superintendent
Human Resources/Auxiliary Services

Publish: American Press and Southwest Daily News
August 14, 21, 28, 2015

Calcasieu Parish School Board

BUILDING FOUNDATIONS FOR THE FUTURE

Karl Bruchhaus, Superintendent

August 10, 2015

Mark Hayes, President
Calcasieu Association of Educators
300 East McNeese Street Ste. 4A
Lake Charles, Louisiana 70605

Dear Mr. Hayes,

The Asbestos Hazard Emergency Response Act (AHERA) of 1986 requires that teacher and employee organizations be given written notification by the local education agency of the availability of management plans. This letter serves as our annual notification.

The principals and/or building administrators have the plans at this time and the plans are available upon request.

Please make this announcement available to your membership.

Thanks for your assistance in this matter.

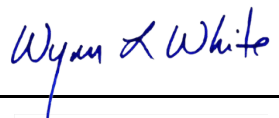
Sincerely,

Gary Anderson
Assistant Superintendent
Auxiliary Services

GA:dv

MANAGEMENT PLAN CONTRIBUTORS

A. List the accredited management planner and all other consultants who contributed to the Management Plan. Attach Louisiana accreditation certificate for current asbestos management planner behind Section F. **(*LAC 33:III.2723.D.12*)**

Name	Accreditation No.	Expiration Date	Signature	Email address
Wynn White	9P95572	12/21/19		wwhite@wynnwhite.com
Chris White	9I95575	12/22/19		cwhite@wynnwhite.com
Chris White	JP095575	1/17/2023		cwhite@wynnwhite.com
Chris White	JP095575	1/17/2026		cwhite@wynnwhite.com

STATE OF LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY

certifies that

Christopher M White

Has complied with all requirements of the Louisiana Department of Environmental Quality and is authorized to perform the duties of

Asbestos Management Planner

Accreditation No. JP095575 **AI No.** 95575

Date of Issuance January 24, 2025 **Expiration** January 17, 2026

Failure to comply with all applicable provisions of La. R.S. 2025.E. (1)(a) and La. R.S. 2025.F. (2)(a) may result in civil and/or criminal enforcement actions by the State.

Charles Finley

Permit Support Services Division
Office of Environmental Services

B. **THIRD PARTY ASBESTOS MANAGEMENT PLAN REVIEWER** (optional)

A local education agency or the responsible party for the state building may require each management plan to contain a statement signed by a third party accredited management planner as a reviewer to the current accredited management planner, that such person has prepared or assisted in the preparation of such plan or has reviewed such plan, and that such plan is in compliance with ***LAC 33:III.Chapter 27***. (***LAC 33:III.2723.E*****)**

☐ Statement is Required by LEA or State

☐ Statement is NOT Required by LEA or State

The undersigned does hereby certify that they have reviewed the management plan and testify that the plan complies with ***LAC 33:III.2723*** of the Louisiana Air Quality regulations. (Statement may NOT be signed by a person who, in addition to preparing or assisting in preparing the Management Plan, also implements or will implement the Management Plan). If signed, attach copy of current management planner accreditation certificate behind Section F. **(optional as part of *LAC 33:III.2723.E*)**

Name of Louisiana Accredited Reviewing Management Planner: _____
Reviewing Management Planner Signature: _____
Louisiana DEQ Accreditation No: _____
Expiration Date: _____

Section G
Part I

RECORDKEEPING

PREVENTATIVE MEASURES/ RESPONSE ACTIONS

For each preventative measure and response action performed after December 14, 1987, the local education agency or responsible party for the state building shall provide the following information:

A. A detailed written description of the action taken. The description should include the following information. Attach behind Section G, Part I. **(*LAC 33:III.2725.B.1*)**

- Methods Used
- Location of Measure or Action
- Reason for Selection of Action
- Names and Addresses of all Contractors Involved
- Louisiana Accreditation Number of Contractor/Supervisor(s)
- Storage or Disposal Site if ACM was Removed

B. The name and signature of any person collecting air samples required at the completion of response actions. **(*LAC 33:III.2725.B.2*)** Note that the person conducting air monitoring must be LDEQ accredited as an asbestos Contractor/Supervisor.

Name	Accreditation No	Expiration Date	Signature

C. A written description of the locations where samples were collected. The following information should be included in the description. Attach behind Section G, Part I. **(*LAC 33:III.2725.B.2*)** Note that the laboratory conducting analysis of air samples must be a LELAP accredited lab. Attach a copy of the LELAP certificate and scope of accreditation behind Section G, Part I.

- Date of Collection
- Name and Address of Analyzing Laboratory
- Date of Report (***compliant with LAC 33:I.5313.A and 5313.B***)
- Results of Analysis
- Methods of Analysis
- Name and Signature of Analyst
- LELAP Laboratory Accreditation Certificate and scope of accreditation behind Section G, Part I.

Post Office Box 83527
Baton Rouge, LA 70884-3527

WYNN L. WHITE CONSULTING ENGINEERS, INC.

July 20, 2023

Mr. Kenny Brown
Calcasieu Parish School Board
3310 Broad St
Lake Charles, LA 70602
(sent via email)

RE: June 22-July 13, 2023, Oak Park Elementary Main Building TSI Removal and Multipurpose Building Transite Removal Asbestos Air Monitoring and Clearance 23013

Dear Kenny:

I have enclosed the analytical results for the asbestos air area monitoring samples and asbestos air clearance samples Todd Peterson and Jeffrey Johnson, accredited asbestos supervisors, collected June 22-23, June 26-30, July 5-July 7, and July 10-12, 2023 for TSI removal and July 11-13,2023 for transite removal. The building address is 2001 18th St Lake Charles, LA 70601. This report is for your review and files.

Jeffrey Johnson and Todd Peterson analyzed the asbestos air area monitoring samples using Phase Contrast Microscopy. CA Labs of Baton Rouge, LA analyzed the asbestos air clearance samples using Transmission Electron Microscopy (TEM).

Area air samples are from outside the containment areas, in the vicinity of the removal work. Clearance air samples are from inside the containment areas.

Zimmer-Eschette successfully removed the thermal system insulation (TSI) from the main building and the transite from above the multipurpose building. All asbestos area air sample results are below analytical detection limits. The asbestos clearance air sample results are below the EPA recommended clearance level of 70 s/mm^2. Therefore, the areas are released to the owner.

If you have questions or would like to discuss the project, please call me at (225) 761-9141 extension 2.

Very truly yours,

Wynn L. White Consulting Engineers, Inc.

Chris White

Chris White, P.E.
Vice President

Enclosures: Air Sample Log 6/22-6/23/2023, 6/26-6/30/2023, 7/5-7/7/2023 & 7/10-7/13/2023, Activity Documentation 6/22-6/23/2023, 6/26-6/30/2023, 7/5-7/7/2023 & 7/10-7/13/2023, and CA Labs Report cbr23075331 & cbr23075426

Voice: (225) 761-9141
Fax: (225) 761-4450
www.wynnwhite.com

Date: 07-13-23 Project # 23013

Facility # 114 Building # 2021

Project: Oak Park Elementary

Prepared by: Todd Peterson

Analyzed by: Todd Peterson

Checked By: Bakari Weeks

Calibration Method: Potentia LVR-10S with flowbat

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm PCM 0.8μm MCE filter

Location: Exterior Gym

Notes: Transite Removal

Sample ID Number	Pump #	Time On AM	Time Off PM	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
071323TP01	—	—	—	—	—	—	—	—	Lab Blank	<7.0 f/cm²
071323TP02	—	—	—	—	—	—	—	—	Field Blank	<7.0 f/cm²
071323TP03	22-1016	7:00	12:00	300	1.4	1.4	1.4	420	NW Corner of Building Exterior	<.006 f/cc
071323TP04	22-1017	7:00	12:00	300	1.4	1.4	1.4	420	NE Corner of Building Exterior	<.006 f/cc

Documentation of Activities

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client	CPSB
Contractor	Zimmer - Eschette
Contractor Supervisor	Jose Alvarado
Location	~~Main Building~~ Gym
WLWCEI Project #:	27013
Date	07-13-23

6:50 A ON SITE. PRE-CON RUNS. START PAPERWORK.

7:00 A START RUNS. CREW WILL WORK ON NORTH SIDE OF GYM

7:30 A RUNS GOOD. CREW STILL WORKING.

12:00 PM VISUAL PASSED. COLLECT RUNS & POST-CON.

Tab Potts — Project Supervisor

07-13-23 — Date

Date: 07-12-23 Project # 23013 (TP)

Facility # 114 Building # ~~2020~~ 2021

Project: Oak Park Elementary

Prepared by: Todd Peterson

Analyzed by: Todd Peterson

Checked By: Baker Weiss

Calibration Method: Rotameter LVR-008 w/ flowbar

WYNN L. WHITE CONSULTING ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm PCV 0.8μm MCE filter

Location: Exterior Gym

Notes: Transite Removal

Sample ID Number	Pump #	Time On AM	Time Off PM	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
071223TP01	—	—	—	—	—	—	—	—	Lab Blank	<7.0 f/mm²
071223TP02	—	—	—	—	—	—	—	—	Field Blank	<7.0 f/mm²
071223TP03	22-1016	6:55	4:55	600	1.4	1.4	1.4	840	North of Work Area	<.003 f/cc
071223TP04	22-1017	6:55	4:55	600	1.4	1.4	1.4	840	East of Work Area	.003 f/cc
071223TP05	22-1018	6:55	4:55	600	1.4	1.4	1.4	840	South of Work Area	<.003 f/cc
071223TP06	22-1019	6:55	4:55	600	1.4	1.4	1.4	840	West of Work Area	<.003 f/cc

Documentation of Activities

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client: CPSB
Contractor: Zahner Eschete
Contractor Supervisor: Jose Alvarado
Location: ~~Alma Building~~ Gym
WLWCEI Project #: 23017
Date: 07-12-23

6:40 AM ON SITE: PRE-CAL PUMPS.
6:55 A START PUMPS AND PAPERWORK.
7:15 A SET UP HIGH VOL PUMPS FOR CONTINMENT 2.
7:30 A START HIGH VOL PUMPS.
8:30 A CHECK LOW VOL AND HIGH VOL PUMPS. PUMPS O.K.
9:30 A STOP HIGH VOLS AND POST-CAL. ALL LOW VOLS RUNNING GOOD ON TRNSITE REMOVAL.
12:00 CREW TAKING LUNCH. ALL PUMPS GOOD.
1:00 P CHECK PUMPS. CREW STILL WORKING.
2:00 P CHECK PUMPS. CREW STILL WORKING.
3:00 P ALL PUMPS RUNNING GOOD.
4:00 P CHECK PUMPS. PUMPS GOOD. CREW STILL WORKING.
4:50 P CREW STOPPING FOR THE DAY. WILL COME BACK TOMORROW TO FINISH TRNSITE REMOVAL. COLLECT PUMPS & POST-CAL.

Project Supervisor

07-12-23
Date

Date: 07-11-23 Project # 23013

Facility # 114 Building # ~~2020~~ TP 2021

Project: Oak Park Elementary

Prepared by: Todd Peters

Analyzed by: Todd Peters

Checked By: Baker; Weiss

Calibration Method: Rotameter LVR-008 w/ Flowdot

WYNN L. WHITE CONSULTING ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm PCM 0.8µm MCE filter

Location: Exterior Transite Removal Gym

Notes: Gym - Ext. Transite Removal

Sample ID Number	Pump #	Time On PM	Time Off PM	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
071123TP12	—	—	—	—	—	—	—	—	Lab Blank	<7.0 f/m²
071123TP13	—	—	—	—	—	—	—	—	Field Blank	<7.0 f/m²
071123TP14	22-1016	2:10	4:30	140	1.4	1.4	1.4	196	North of Work Area	<.01 f/cc
071123TP15	22-1017	2:10	4:30	140	1.4	1.4	1.4	196	East of Work Area	<.01 f/cc
071123TP16	22-1018	2:10	4:30	140	1.4	1.4	1.4	196	South of Work Area	<.01 f/cc
071123TP17	22-1019	2:10	4:30	140	1.4	1.4	1.4	196	West of Work Area	<.01 f/cc

Date: 07-12-23 Project # 23013

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Todd Peterson

Analyzed by: Todd Peterson

Checked By: Barbara Weiss 2017-HF3

Calibration Method: Rotameter ~~use~~ w/ flowchek

WYNN L. WHITE CONSULTING ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7402

Cassette Lot # 26038

Sample Media: 2 SKC TEA, 4 5μm & 5.0μm MCE filter

Location: Main Building 2nd Contract

Notes: Final Clearance
2nd Contractment

Sample ID Number	Pump #	Time On Ar	Time Off Ar	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
071223TP07	—	—	—	—	—	—	—	—	Lab Blank	NA
071223TP08	—	—	—	—	—	—	—	—	Field Blank	NA
071223TP09	22-HV7	7:30	9:30	120	10.4	10.4	10.4	1248	North Area	ND
071223TP10	22-HV17	7:30	9:30	120	10.4	10.4	10.4	1248	East Area	ND
071223TP11	22-HV10	7:30	9:30	120	10.4	10.4	10.4	1248	SW Area	ND
071223TP12	22-HV9	7:30	9:30	120	10.4	10.4	10.4	1248	SE Area	ND
071223TP13	22-HV19	7:30	9:30	120	10.4	10.4	10.4	1248	West Area	ND

NA - Not Analyzed
ND - None Detected

Date: 07-11-23 Project # 23013

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Todd Peterson

Analyzed by: Todd Peterson

Checked By: Bakari Wells

Calibration Method: Rotameter DVR-008 w/ Flowchart

WYNN L. WHITE
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P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm PCMO .8µm MCE filter

Location: Main Building

Notes: TSI Removal
Second Containment

Sample ID Number	Pump #	Time On AM	Time Off PM	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
071123TP01	—	—	—	—	—	—	—	—	Lab Blank	<7.0 f/mm²
071123TP02	—	—	—	—	—	—	—	—	Field Blank	<7.0 f/mm²
071123TP03	22-1016	7:00	1:25	385	1.4	1.4	1.4	539	Decon Entrance	<.005 f/cc
071123TP04	22-1017	7:00	1:25	385	1.4	1.4	1.4	539	Neg Air Exhaust	<.005 f/cc

Documentation of Activities

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client	CPSB
Contractor	Zimmer Escalette
Contractor Supervisor	Jose Alvarado
Location	Main Building 2nd Contract
WLWCEI Project #:	27013 0
Date	07-11-23

6:40 AM ON SITE. PRE-OP PUMPS. START PAPERWORK.
7:00 A START PUMPS. MANOMETER -.03.
8:20 A ALL PUMPS RUNNING GOOD.
9:00 A ALL PUMPS RUNNING GOOD.
10:30 A ALL PUMPS GOOD. MANOMETER READS -.02.
11:30 A MANOMETER READS -.02. ALL PUMPS GOOD.
12:00 P LUNCH. CREW TAKING BREAK.
1:00 P BACK ON JOB. ALL PUMPS RUNNING GOOD.
1:20 P CREW REQUESTING VISUAL. VISUAL PASSED.
1:25 P COLLECT & POST-OP PUMPS. READ SLIDES.
2:10 P CREW STARTING TRANSITE REMOVAL. SET OUT PUMPS.
3:00 P CREW REMOVING TRANSITE. ALL PUMPS GOOD.
4:00 P ALL PUMPS RUNNING GOOD. CREW STILL WORKING.
4:30 P CREW STOPPING FOR THE DAY. COLLECT AND POST-OP PUMPS.

Project Supervisor — Date: 07-11-23

Date: 07-10-23 Project # 23013

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Todd Peterson

Analyzed by: Todd Peterson

Checked By: Baker Weiss

Calibration Method: Rotameter LVR-008 with Flowcheck

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

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Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm PCM 0.8μm MCE filter

Location: Main Building 2nd Containment

Notes: FSI Removal

Sample ID Number	Pump #	Time On	Time Off	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
071023TP05	—	—	—	—	—	—	—	—	Lab Blank	<7.0 f/mm²
071023TP06	—	—	—	—	—	—	—	—	Field Blank	<7.0 f/mm²
071023TP07	22-1016	8:00	4:30	510	1.4	1.4	1.4	714	Decon Entrance	<.004 f/cc
071023TP08	22-1017	8:00	4:30	510	1.4	1.4	1.4	714	Neg Air Exhaust	<.004 f/cc

Documentation of Activities

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client	CPSB
Contractor	Zimmer Escalette
Contractor Supervisor	Jose Alvarado
Location	Main Bldg. 2nd Containment
WLWCEI Project #:	23013 0
Date	07-10-23

7:50 A ON SITE. PRE-CAL PUMPS. START PERIMETER.

8:00 A START PUMPS ON SECOND CONTAINMENT.

8:10 A SETUP AND PRE-CAL HIGH VOL PUMPS FOR 1ST CONTAINMENT.

9:00 A CHECK PUMPS PUMPS GOOD ON SECOND CONTAINMENT. MANOMETER READS -.02.

9:30 A ALL PUMPS RUNNING GOOD. MANOMETER -.02.

10:15 A ALL PUMPS RUNNING GOOD. MANOMETER -.02.

10:40 A STOP HIGH VOL PUMPS AND POST-CAL.

1:45 P ALL PUMPS GOOD. MANOMETER READS -.02.

2:30 P ALL PUMPS GOOD. MANOMETER READS -.02. CONTINUE READING PAT ROUNDS.

3:30 P ALL PUMPS GOOD. MANOMETER READS -.02.

4:20 P PUMPS GOOD. MANOMETER READS -.02.

4:30 P CREW COMING OUT CONTAINMENT. SUPERVISOR SAYS THEY ARE DONE FOR THE DAY. COLLECT PUMPS AND POST-CAL.

Project Supervisor — Date: 07-10-23

Date: 07-10-23 Project # 23013

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Todd Peterson

Analyzed by: CA Labs

Checked By: Bakarinessss

Calibration Method: Rotunda 2017-HF3 with Flowdot

WYNN L. WHITE CONSULTING ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7402

Cassette Lot # 26038

Sample Media: 25mm TEX .4 Spr + 5.0 µm MCE filters

Location: Main Building 1st Containment

Notes: Final Clearance

Sample ID Number	Pump #	Time On	Time Off	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
071023TP09	—	—	—	—	—	—	—	—	Lab Blank	NA
071023TP10	—	—	—	—	—	—	—	—	Field Blank	NA
071023TP11	22-HV10	8:40	10:40	120	10.4	10.4	10.4	1248	Southeast Room	ND
071023TP12	22-HV7	8:41	10:41	120	10.4	10.4	10.4	1248	Southwest Room	ND
071023TP13	22-HV9	8:42	10:42	120	10.4	10.4	10.4	1248	Middle Corridor	ND
071023TP14	22-HV17	8:43	10:43	120	10.4	10.4	10.4	1248	Northwest Room	ND
071023TP15	22-HV18	8:44	10:44	120	10.4	10.4	10.4	1248	Northeast Room	ND

NA - Not Analyzed
ND - None Detected

Date: 07-07-23 Project # 23013

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Todd Peterson

Analyzed by: Todd Peterson

Checked By: Bakari Wells SG

Calibration Method: Rotameter CVR-005 with flowsheet

WYNN L. WHITE CONSULTING ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm PCR-0.8μm MCE filter

Location: Main Building

Notes: TSI Removal

Sample ID Number	Pump #	Time On	Time Off	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
070723TP07	–	–	–	–	–	–	–	–	Lab Blank	<7.0 f/mm²
070723TP08	–	–	–	–	–	–	–	–	Field Blank	<7.0 f/mm²
070723TP09	22-1016	7:30	10:40	190	1.4	1.4	1.4	266	Decon Entrance	<.01 f/cc
070723TP10	22-1017	7:30	10:40	190	1.4	1.4	1.4	266	Critical Barrier	<.01 f/cc
070723TP11	22-1018	7:30	10:40	190	1.4	1.4	1.4	266	Neg Air Exhaust	<.01 f/cc

Documentation of Activities

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client	CPSB
Contractor	Zimmer Esdale
Contractor Supervisor	Jose Alvarado
Location	Main Building
WLWCEI Project #:	23013
Date	07-07-23

7:30 A ON SITE. START PUMPS AND PAPERWORK.

8:30 A ALL PUMPS GOOD. MANOMETER READS -.02.

10:00 A ALL PUMPS RUNNING GOOD. MANOMETER READS -.02". (TP)

SUPERVISOR REQUESTING VISUAL.

10:40 A VISUAL PASSED, COLLECT PUMPS AND POST-CAL.

11:00 A DRIED AND ANALYZE CASSETTES. CREW LOCKING DOWN.

Tom Peter
Project Supervisor

07-07-23
Date

Date: 07-06-23 Project # 23013

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Todd Peterson

Analyzed by: Todd Peterson

Checked By: Bakari Wei SS

Calibration Method: Rotameter LVR-008 with flowsheet

WYNN L. WHITE CONSULTING ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm PCM 0.8µm MCE filter

Location: Main Building

Notes: TSI Removal

Sample ID Number	Pump #	Time On AM	Time Off PM	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
070623TP01	—	—	—	—	—	—	—	—	Lab Blank	<7.0
070623TP02	—	—	—	—	—	—	—	—	Field Blank	<7.0
070623TP03	22-1016	7:00	4:40	580	1.4	1.4	1.4	812	Decon Entrance	<.007
070623TP04	22-1017	7:00	4:40	580	1.4	1.4	1.4	812	Critical Barrier	<.007
070623TP05	22-1018	7:00	4:40	580	1.4	1.4	1.4	812	Neg Air Exhaust	<.007
~~070623TP06~~ TP										

Documentation of Activities

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client	CPSB
Contractor	Zimmer Eschette
Contractor Supervisor	Jose Alvarado
Location	Oak Park Elementary
WLWCEI Project #:	23013
Date	07-06-23

6:40 Am ON SITE. PRE-CAL PUMPS.

7:00 A START PUMPS. CREW STARTING WORK.

7:70 A CREW LOADING OUT. BAGS LABELED AND WET.

12:30 Pm ALL PUMPS GOOD. MANOMETER -.02.

2:00 Pm ALL PUMPS GOOD. MANOMETER READS -.02.

3:30 Pm MANOMETER READS -.02. ALL PUMPS O.K.

4:30 Pm CREW STILL WORKING. ALL PUMPS GOOD.

4:40 Pm CREW STOPPING FOR THE DAY. COLLECT & POST-CAL.

Tom Peter
Project Supervisor

07-06-23
Date

Date: 07-05-23 Project # 23013

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Todd Peterson

Analyzed by: Todd Peterson

Checked By: Bakari Weiss

Calibration Method: Rotameter LVR-as wird flowchart

WYNN L. WHITE CONSULTING ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm PCM 0.8μm MCE filter

Location: Main Building

Notes: TSI Removal

Sample ID Number	Pump #	Time On AM	Time Off PM	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
070523TP01	—	—	—	—	—	—	—	—	Lab Blank	<7.0 f/mm²
070523TP02	—	—	—	—	—	—	—	—	Field Blank	<7.0 f/mm²
070523TP03	22-1016	7:45	4:45	540	1.4	1.4	1.4	756	Decon Entrance	<.004 f/cc
070523TP04	22-1017	7:45	4:45	540	1.4	1.4	1.4	756	Critical Barrier	<.004 f/cc
070523TP05	22-1018	7:45	4:45	540	1.4	1.4	1.4	756	Neg Air Exhaust	.004 f/cc

Documentation of Activities

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client	CPSB
Contractor	Zimmer - Eschette
Contractor Supervisor	Jose Alvarado
Location	Oak Park Elementary
WLWCEI Project #:	27017
Date	07-05-23

5:00 AM LOAD GEAR. HEAD TO LAKE CHARLES.

7:25 AM ON SITE. UNLOAD GEAR. PRE-CAL PUMPS.

7:45 AM START AREA SAMPLES. MANOMETER READS -.02.

8:30 AM CREW WORKING. ALL PUMPS GOOD.

9:30 AM MANOMETER READS -.02. ALL PUMPS RUNNING GOOD.

10:30 AM ALL PUMPS O.K. MANOMETER READS -.02. CREW INSIDE WORKING. RAIN, COVER EXTERIOR NEG AIR EXHAUST PUMPS. (TP)

2:50 PM ALL PUMPS RUNNING GOOD. MANOMETER READS -.02.

3:30 PM MANOMETER READS -.02. ALL PUMPS RUNNING GOOD.

4:30 PM CREW STILL WORKING. MANOMETER READS -.02.

4:45 PM CREW STOPPING FOR THE DAY. COLLECT PUMPS AND POST-CAL.

5:00 PM LEAVE SITE.

Todd Peterson
Project Supervisor

07-05-23
Date

Date: 06-20-23 Project # 23013

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Todd Peterson

Analyzed by: Todd Peterson

Checked By: Bakari Meiggs

Calibration Method: Rotameter CVR-108 with Flowbot

WYNN L. WHITE CONSULTING ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm PCA 0.8μm MCE Filter

Location: Oak Park Elementary Main Building

Notes: TJI Removal

Sample ID Number	Pump #	Time On AM	Time Off AM	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
063023TP06	—	—	—	—	—	—	—	—	Lab Blank	<7.0 f/mm²
063023TP07	—	—	—	—	—	—	—	—	Field Blank	<7.0 f/mm²
063023TP08	22-1016	7:00	11:30	270	1.4	1.4	1.4	378	Decon Entrance	<.007 f/cc
063023TP09	22-1039	7:00	11:30	270	1.4	1.4	1.4	378	Critical Barrier	<.007 f/cc
063023TP10	22-1040	7:00	11:30	270	1.4	1.4	1.4	378	Negative Exhaust	<.007 f/cc

Documentation of Activities

WYNN L. WHITE
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ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client	CPSB
Contractor	Zhan Pickett
Contractor Supervisor	Jose Alvarado
Location	Oak Park Elementary
WLWCEI Project #:	23017
Date	06-20-23

6:50 A ON SITE. PRE-CAL PUMPS. START PAPERWORK.
7:00 A START PUMPS. CREW EARTHING CONTAINMENT.
10:45 A ON JOB. CHECK PUMPS. PUMPS GOOD. MANOMETER -.015.
11:30 A CREW STOPPING FOR THE DAY. COLLECT PUMPS AND POST-CAL.

Project Supervisor — Date: 06-20-23

Date: 06-29-23 Project # 23017

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Todd Peterson

Analyzed by: Todd Peterson

Checked By: Bakari Weiss

Calibration Method: Robertson LVR-008 with flowchart

WYNN L. WHITE CONSULTING ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm PCR 0.8µm MCE Filter

Location: Oak Park Elem. Main Building

Notes: TSI Removal

Sample ID Number	Pump #	Time On AM	Time Off PM	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
062923TP07	—	—	—	—	—	—	—	—	Lab Blank	<7.0 f/mm²
062923TP08	—	—	—	—	—	—	—	—	Field Blank	<7.0 f/mm²
062923TP09	22-HV~~25~~18	7:00	5:00	600	1.4	1.4	1.4	840	Decon Entrance	<.003 f/cc
062923TP10	22-HV9	7:00	5:00	600	1.4	1.4	1.4	840	Critical Barrier	<.003 f/cc
062923TP11	22-1036	7:00	5:00	600	1.4	1.4	1.4	840	Neg. Air Exhaust	<.003 f/cc

Documentation of Activities

WYNN L. WHITE
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ENGINEERS, INC.

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Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client	CPSB
Contractor	Zimmer Escalette
Contractor Supervisor	Jose Alvarado
Location	Oak Park Elementary
WLWCEI Project #:	23013-114
Date	06-29-23

6:45a ON SITE. PRE-CK PUMPS. START PROGRAMMIC.
7:00a CREW ON SITE. START PUMPS.
8:45a ALL PUMPS GOOD. MANOMETER -.02.
8:55a SUPERVISOR ASKING TO WORK NEXT SATURDAY.
10:00a ALL PUMPS GOOD. MANOMETER READS -.02.
1:10p ALL PUMPS GOOD. MANOMETER READS -.02.
4:20p CHECK PUMPS. PUMPS RUNNING GOOD.
5:00p CREW LEAVING JOB. COLLECT & POST-CK PUMPS.

Project Supervisor — Date: 06-29-23

Date: 06-28-23 Project # 23013

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Todd Peter

Analyzed by: Todd Peter

Checked By: Barbara Weiss

Calibration Method: Rotameter LVR-W 2 with flowsheet

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm PCA 0.8µm MCE filter

Location: Oak Park Elementary Main Building

Notes: TSI Removal

Sample ID Number	Pump #	Time On AM	Time Off PM	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
062823TP07	—	—	—	—	—	—	—	—	Lab Blank	<7.0 f/mm²
062823TP08	—	—	—	—	—	—	—	—	Field Blank	<7.0 f/mm²
062823TP09	22-HV18 1037	7:00	4:30	570	1.4	1.4	1.4	798	Decon Entrance	<.003 f/cc
062823TP10	22-HV9	7:00	4:30	570	1.4	1.4	1.4	798	Critical Barrier	<.003 f/cc
062823TP11	22-1036	7:00	4:30	570	1.4	1.4	1.4	798	Neg Air Exhaust	.003 f/cc

Documentation of Activities

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client	CPSB
Contractor	Zimm - Eshett
Contractor Supervisor	Jose Alvarado
Location	Oak Park Elementary
WLWCEI Project #:	22013-114
Date	06-28-23

6:50 A ON SITE. PRE-CK PUMPS.
7:00 A START PUMPS. START PROCEDURE.
8:00 A CHECK PUMPS. PUMPS O.K. MANOMETER FLT LINED.
LET SUPERVISOR KNOW.
8:10 A SUPERVISOR WORKING ON NEGATIVE PRESSURE.
8:20 A MANOMETER READS -.02. ALL PUMPS O.K.
11:45 A MANOMETER READS -.02. ALL PUMPS OK.
1:70 PM ALL PUMPS RUNNING GOOD. MANOMETER -.02.
4:30 PM MANOMETER READS -.02. COLLECT & POST-CK PUMPS.

Project Supervisor — Date: 06-28-23

Date: 06-27-23 Project # 23013

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Todd Peterson

Analyzed by: Todd Peterson

Checked By: Bakari Wess

Calibration Method: Rotameter CAL-CO with flowchart

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm PCM 0.8µm MCE filter

Location: Oak Park Elementary

Notes: TSI Record

Sample ID Number	Pump #	Time On AM	Time Off PM	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
062723TP07	—	—	—	—	—	—	—	—	Cab Blank	<7.0 f/mm²
062723TP08	—	—	—	—	—	—	—	—	Field Blank	<7.0 f/mm²
062723TP09	22-1076	7:10	4:40	570	1.4	1.4	1.4	798	Decon Entrance	<.003 f/cc
062723TP10	22-1077	7:10	4:40	570	1.4	1.4	1.4	798	Critical Barrier	<.003 f/cc
062723TP11	22-1078	7:10	4:40	570	1.4	1.4	1.4	798	Neg Air Exhaust	<.003 f/cc

Documentation of Activities

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client	CPSB
Contractor	Zimmer - Escbette
Contractor Supervisor	Jose Alvarado
Location	Oak Park Elementary
WLWCEI Project #:	23013-114
Date	06-27-23

6:45 AM ON SITE. CREW UNLOCKING FACILITY.
6:55 AM PRE-CAL PUMPS. START PAPERWORK.
7:10 AM START PUMPS. MANOMETER READS -.02.
8:00 AM MANOMETER READS -.02. PUMPS GOOD.
9:00 AM MANOMETER READS -.02. ALL PUMPS GOOD.
11:45 AM MANOMETER READS -.02. ALL PUMPS GOOD.
12:45 PM BACK ON JOB. ALL PUMPS RUNNING GOOD.
3:00 PM MANOMETER READS -.015. ALL PUMPS GOOD.
4:20 PM ALL PUMPS GOOD. MANOMETER READS -.015.
4:40 PM COLLECT PUMPS & POST-CAL.

Todd Peter — 06-27-23

Project Supervisor — Date

Date: 06-26-23 Project # 23013

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Todd Peterson

Analyzed by: Todd Peterson

Checked By: Bakari Weiss

Calibration Method: CAL-CAS with Flowcal+ (Rotameter)

WYNN L. WHITE CONSULTING ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 25861

Sample Media: 25mm PCA 0.8µm MCE filter

Location: Oak Park Elementary Main Building

Notes: TSI Removal

Sample ID Number (-10)	Pump #	Time On PM	Time Off PM	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result
062623TP067	—	—	—	—	—	—	—	—	Lab Blank	<7.0 f/mm²
062623TP078	—	—	—	—	—	—	—	—	Field Blank	<7.0 f/mm²
062623TP089	22-1036	12:30	5:00	270	1.4	1.4	1.4	378	Decon Entrance	<.007 f/cc
062623TP0410	22-1037	12:30	5:00	270	1.4	1.4	1.4	378	Critical Barrier	<.007 f/cc
062623TP0811	22-1038	12:30	5:00	270	1.4	1.4	1.4	378	Neg Air Exhaust	<.007 f/cc

Documentation of Activities

WYNN L. WHITE
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ENGINEERS, INC.

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Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client	CPSB
Contractor	Zimmer - Esdelle
Contractor Supervisor	Jose Alvarado
Location	Oak Park Elementary
WLWCEI Project #:	23013_114_2020
Date	06-26-23

7:30 AM ON JOB. WORK JOB. CREW STILL PREPPING
12:30 PM MANOMETER READS -.02. START PUMPS.
2:30 PM DEQ ON SITE. ALL PUMPS GOOD. MANOMETER -.015.
4:40 PM ALL PUMPS GOOD. MANOMETER READS -.02.
5:00 PM CREW STOPPING WORK. COLLECT PUMPS & POST-CM.

Todd Peterson — Project Supervisor

06-26-23 — Date

Date: 06-23-23 Project # 23013

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Jeffrey Johnson

Analyzed by: Jeffrey Johnson

Checked By:

Calibration Method: Rotameter LF-1 with Flow chart

WYNN L. WHITE
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ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm 3pc w/ 0.8 μm mce (pcm)

Location: Main Bldg

Notes: Background Sampling

Sample ID Number	Pump #	Time On am	Time Off am	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result f/cc
062323J1	—	—	—	—	—	—	—	—	lab Blank Fl/mm²	< 7.0
062323J2	—	—	—	—	—	—	—	—	Field Blank Fl/mm²	< 7.0
062323J3	22:1026	7:30	11:50	260	2.0	2.0	2.0	520	decon entry 9/100	< 0.005
062323J4	22:1027	7:30	11:50	260	2.0	2.0	2.0	520	mtg air exhaust 9/100	< 0.005
062323J5	22:1028	7:30	11:50	260	2.0	2.0	2.0	520	control Barrier 9/100	< 0.005

Documentation of Activities

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client: CPSB
Contractor: Zimmer-Escholtte
Contractor Supervisor: Jose Alvarado
Location: Oak Park Elementary - 2020
WLWCEI Project #: 23013.114
Date: 06.23.23

7am Arrived at job site
7:30am Started all pumps
- crew still prepping
11:50am Stopped all pumps
- crew finished prepping to late to start removal will start on Monday
12pm Departed From Lake Charles
2:30pm Arrived at Office

Project Supervisor

06.23.23
Date

Date: 06.22.23 Project # 23013

Facility # 114 Building # 2020

Project: Oak Park Elementary

Prepared by: Jeremy Johnson

Analyzed by: Jeffrey Johnson

Checked By:

Calibration Method: Rotameter (FI-with Flow chart

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, LA 70884
(225) 761-9141

Air Sample Log

4.9.50.04

Analytical Method: NIOSH 7400

Cassette Lot # 29861

Sample Media: 25mm 3pc w/ 0.8µm mce (PCM)

Location: Main Bldg (TSI pipe removal)

Notes: Background samples

Sample ID Number	Pump #	Time On	Time Off	Elapsed Time (min)	Pre-Cal Rate	Post Cal Rate	Flow Rate (LPM)	Sample Volume (liters)	Sample Identification/information	Result F/cc
062223J1	—	—	—	—	—	—	—	—	Lab Blank F/mm²	< 7.0
062223J2	—	—	—	—	—	—	—	—	Field Blank F/mm²	< 7.0
062223J3	22-1026	10:05 pm	5:00 pm	415	2.0	2.0	2.0	830	decon entry 0/100	< 0.003
062223J4	22-1027	10:05 pm	5:00 pm	415	2.0	2.0	2.0	830	mag mk exhaust	< 0.003
062223J5	22-1028	10:05 pm	5:00 pm	415	2.0	2.0	2.0	830	control Room (Hallway)	< 0.003

Documentation of Activities

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

P.O. Box 83527
Baton Rouge, La. 70884-3527
Phone 225-761-9141
Fax 225-761-4450

Client: CPSB
Contractor: Zimmer / Escalle
Contractor Supervisor: Jose Alvarado
Location: Oak Park Elementary - 2020
WLWCEI Project #: 23013_114
Date: 06.22.23

5:30 am Departed From B.R.
8am Arrived at Oak Park Elementary
8:15am - crew still prepping enclosure
- Talked to Jose Alvarado should be ready after lunch
10am - crew still prepping started background samples
12pm - Lunch Break
1pm - crew started back prepping pumps (D/C)
2:05pm - crew pumps (D/C)
5pm Stopped all pumps
crew Finished For the day

Project Supervisor

06.22.23
Date

CA Labs
Dedicated to Quality

CA Labs, L.L.C.
12232 Industriplex Blvd Ste 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

LELAP #03069

Transmission Electron Microscopy Report
Airborne Asbestos Analysis
Laboratory Analysis Report
AHERA

Wynn L. White Consulting Engineers
17485 Opportunity Ave Suite 1-C
Baton Rouge, LA 70817

Reference Number: CBR23075426

LABORATORY ANALYSIS

Summary of analytical transmission electron microscopy analysis, including x-ray microanalysis (EDS) and selected area diffraction (SAED) of air samples submitted. The samples were analyzed as per EPA AHERA regulations (see METHOD below). This report confirms results issued from CA Labs by phone and/or email.

METHOD:
The procedure for the AHERA analysis of the samples follows Mandatory Units II and IV of Appendix A to Subpart 763. Asbestos Containing Materials in Schools; Final Rule and method, utilizing x-ray micro-analysis and selected area electron diffraction. **CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM).** The test results relate only to the items described and tested herein. Analyst' quantification of asbestos concentration may vary by 70 s/mm^2 at or above the regulatory limit. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured.

RESULTS:

Maximum sample volume (liters) = 1248
Average concentration of samples (s/mm ^{2}) = <15.29

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety days before discarding. A shipping and handling fee may be assessed for the return of any samples.

Analysis performed at CA Labs, LLC. 12232 Industriplex Blvd, Suite 32, Baton Rouge, LA 70809. Phone 225-751-5632, fax 225-751-5634, after hours mobile 225-993-3471.

CA Labs, LLC. is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). This test report relates only to the items tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. **The laboratory is not responsible for data collected by personnel who are not part of the laboratory. Results reported in Structures/CC are dependent on the volume of air sampled and measured by non-laboratory personnel and are not covered by the laboratory's NVLAP accreditation.**

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, Crisp Analytical Labs will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee may be assessed for the return of any samples.

CA Labs
Dedicated to Quality

CA Labs, L.L.C.
12232 Industriplex Blvd Ste 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

LELAP #03069

Transmission Electron Microscopy Report

Analysis Method: Interim (40CFR Part 763 Appendix A to Subpart E) / AHERA
Preparation Method: Filters are plasma etched to ten percent weight loss, carbon coated and dissolved with acetone in both Jaffe wick and condensate washer (coldfinger). All preps verified by another analyst.

Customer Information:
Wynn L. White Consulting Engineers
17485 Opportunity Ave Suite 1-C
Baton Rouge, LA 70817

Customer Project:
23013_2020

CA Labs Project #:
CBR23075426

Date: 07/13/2023

Phone:
Fax:

Turnaround Time: 8 hr
Attn:

Samples Received: 07/13/2023
Purchase Order #:

Sample#	Location – Provided by customer	Sample Volume L	Asbestos Type:	Asbestos Structures Detected ≥0.5µm to <5µm	Asbestos Structures Detected ≥5µm	On-filter Concentration s/mm²	Airborne Concentration s/cc
071223-TP-09	N/A	1248	Serpentine Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: 0.0047
			Amphibole Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm:	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			# GO Analyzed: 6	**Totals: 0**	**Totals: 0**	**Totals: <15.29**	**Totals: <0.0047**
071223-TP-10	N/A	1248	Serpentine Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: 0.0047
			Amphibole Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm:	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			# GO Analyzed: 6	**Totals: 0**	**Totals: 0**	**Totals: <15.29**	**Totals: <0.0047**
071223-TP-11	N/A	1248	Serpentine Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: 0.0047
			Amphibole Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm:	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			# GO Analyzed: 6	**Totals: 0**	**Totals: 0**	**Totals: <15.29**	**Totals: <0.0047**
071223-TP-12	N/A	1248	Serpentine Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: 0.0047
			Amphibole Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm:	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			# GO Analyzed: 6	**Totals: 0**	**Totals: 0**	**Totals: <15.29**	**Totals: <0.0047**
071223-TP-13	N/A	1248	Serpentine Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: 0.0047
			Amphibole Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm:	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			# GO Analyzed: 6	**Totals: 0**	**Totals: 0**	**Totals: <15.29**	**Totals: <0.0047**

Grid Opening Area: 0.0109 mm² | **Area Analyzed:** 0.0654 mm² | **Analytical Sensitivity:** 0.0047 s/cc

NSD = No Structures Detected

NVLAP # 200772-0
LELAP # 03069
TDSHS # 30-0370

Approved Signatories:

Alicia Stretz
Analyst

Christopher Williams
Laboratory Director

Alicia Stretz
Senior Analyst

Notes:

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee may be assessed for the return of any samples.

CHAIN OF CUSTODY

CBR230754Z6

PROJECT DATA	SHIPPING DATA	LABORATORY
Project No.: 23013_2020	Samples Shipped via: Fed Ex	Name: CA Labs LLC
		Address: 12232 Industriplex Blvd
		Suite 32
Samples Collected by: Todd Peter		City, State, Zip Baton Rouge, LA 70809
		Samples Rec'd by: (Signature)
Date: 07-12-23		Date Received: 7-13-2023 10:15

SAMPLE IDENTIFICATION

071223TP07	Lab Blank		
071223TP08	Field Blank		
071223TP09	1248 L		
071223TP10	1248 L		
071223TP11	1248 L		
071223TP12	1248 L		
071223TP13	1248 L		

SPECIAL CONDITIONS OR COMMENTS

Analysis:
- [X] TEM
- [ ] PCM
- [ ] PLM
- [ ] 7082 Lead
- [ ] TCLP Metals
- [ ] Other: _____
- [ ] Mold Air-O-Cell Volume:
- [ ] Mold Agar Plate or Rodac Plate
- [ ] Mold Bulk or Swab

[ ] Methamphetamine by GC/MS Special Detection Limit Req: _____ 0.5 ug/wipe _____ 0.1 ug/wipe

Requested Turnaround:
- [ ] 7 Day
- [ ] 3 Day
- [ ] 6-10 Day
- [ ] 24 Hour
- [ ] Same Day
- [ ] 24-48 Hour
- [X] Other 8 hour

Total Number of Samples: 7

Comments/Instructions: Call Chris White with verbal results 225-445-6626.

SEND RESULTS TO: cwhite@wynnwhite.com, dwhite@wynnwhite.com, sbezet@wynnwhite.com tpeter@wynnwhite.com

Environmental • Health • Safety
Engineers • Trainers • Consultants

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

Form 4.9.80.2
Post Office Box 83527
Baton Rouge, LA 70884-3527
Voice Mail (225) 761-9141
Fax No. (225) 761-4450

CA Labs
Dedicated to Quality

CA Labs, L.L.C.
12232 Industriplex Blvd Ste 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

LELAP #03069

Transmission Electron Microscopy Report
Airborne Asbestos Analysis
Laboratory Analysis Report
AHERA

Wynn L. White Consulting Engineers
17485 Opportunity Ave Suite 1-C
Baton Rouge, LA 70817

Reference Number: CBR23075331

LABORATORY ANALYSIS

Summary of analytical transmission electron microscopy analysis, including x-ray microanalysis (EDS) and selected area diffraction (SAED) of air samples submitted. The samples were analyzed as per EPA AHERA regulations (see METHOD below). This report confirms results issued from CA Labs by phone and/or email.

METHOD:
The procedure for the AHERA analysis of the samples follows Mandatory Units II and IV of Appendix A to Subpart 763. Asbestos Containing Materials in Schools; Final Rule and method, utilizing x-ray micro-analysis and selected area electron diffraction. **CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM).** The test results relate only to the items described and tested herein. Analyst' quantification of asbestos concentration may vary by 70 s/mm^2 at or above the regulatory limit. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured.

RESULTS:

Maximum sample volume (liters) = 1248
Average concentration of samples (s/mm ^{2}) = <15.29

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety days before discarding. A shipping and handling fee may be assessed for the return of any samples.

Analysis performed at CA Labs, LLC. 12232 Industriplex Blvd, Suite 32, Baton Rouge, LA 70809. Phone 225-751-5632, fax 225-751-5634, after hours mobile 225-993-3471.

CA Labs, LLC. is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). This test report relates only to the items tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. **The laboratory is not responsible for data collected by personnel who are not part of the laboratory. Results reported in Structures/CC are dependent on the volume of air sampled and measured by non-laboratory personnel and are not covered by the laboratory's NVLAP accreditation.**

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, Crisp Analytical Labs will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee may be assessed for the return of any samples.

CA Labs
Dedicated to Quality

CA Labs, L.L.C.
12232 Industriplex Blvd Ste 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

LELAP #03069

Transmission Electron Microscopy Report

Analysis Method: Interim (40CFR Part 763 Appendix A to Subpart E) / AHERA
Preparation Method: Filters are plasma etched to ten percent weight loss, carbon coated and dissolved with acetone in both Jaffe wick and condensate washer (coldfinger). All preps verified by another analyst.

Customer Information:
Wynn L. White Consulting Engineers
17485 Opportunity Ave Suite 1-C
Baton Rouge, LA 70817

Customer Project:
23013_2020

CA Labs Project #:
CBR23075331

Date: 07/11/2023

Phone:
Fax:

Turnaround Time: 8 hr
Attn:

Samples Received: 07/11/2023
Purchase Order #:

Sample#	Location – Provided by customer	Sample Volume L	Asbestos Type:	Asbestos Structures Detected ≥0.5µm to <5µm	Asbestos Structures Detected ≥5µm	On-filter Concentration s/mm^2	Airborne Concentration s/cc
071023 TP11	N/A	1248	Serpentine Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			Amphibole Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			# GO Analyzed: 6	**Totals: 0**	**Totals: 0**	**Totals: <15.29**	**Totals: <0.0047**
071023 TP12	N/A	1248	Serpentine Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			Amphibole Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			# GO Analyzed: 6	**Totals: 0**	**Totals: 0**	**Totals: <15.29**	**Totals: <0.0047**
071023 TP13	N/A	1248	Serpentine Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			Amphibole Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			# GO Analyzed: 6	**Totals: 0**	**Totals: 0**	**Totals: <15.29**	**Totals: <0.0047**
071023 TP14	N/A	1248	Serpentine Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			Amphibole Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			# GO Analyzed: 6	**Totals: 0**	**Totals: 0**	**Totals: <15.29**	**Totals: <0.0047**
071023 TP15	N/A	1248	Serpentine Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			Amphibole Group	**NSD**	**NSD**	≥0.5µm to <5µm: <15.29 ≥5µm: <15.29	≥0.5µm to <5µm: <0.0047 ≥5µm: <0.0047
			# GO Analyzed: 6	**Totals: 0**	**Totals: 0**	**Totals: <15.29**	**Totals: <0.0047**

Grid Opening Area: 0.0109 mm^2 | **Area Analyzed:** 0.0654 mm^2 | **Analytical Sensitivity:** 0.0047 s/cc

NSD = No Structures Detected

NVLAP # 200772-0
LELAP # 03069
TDSHS # 30-0370

Approved Signatories:

John Grout
Analyst

Christopher Williams
Laboratory Director

Alicia Stretz
Senior Analyst

Notes:

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee may be assessed for the return of any samples.

CBR23075331

CHAIN OF CUSTODY

PROJECT DATA	SHIPPING DATA	LABORATORY
Project No.:	Samples Shipped via: FedEx	Name: CA Labs LLC
23013-2020		Address: 12232 Industriplex Blvd
		Suite 32
Samples Collected by:		City, State, Zip Baton Rouge, LA 70809
Todd Peterson		Samples Rec'd by:
		Carli Brasey Signature
Date: 07-10-23		Date Received: 7/11/23 10:25

SAMPLE IDENTIFICATION			
071023TP09	Lab Blank		
071023TP10	Field Blank		
071023TP11	1248 L		
071023TP12	1248 L		
071023TP13	1248 L		
071023TP14	1248 L		
071023TP15	1248 L		

SPECIAL CONDITIONS OR COMMENTS

Analysis: ☒ TEM ☐ 7082 Lead ☐ Mold Air-O-Cell Volume:
☐ PCM ☐ TCLP Metals ☐ Mold Agar Plate or Rodac Plate
☐ PLM ☐ Other: _____ ☐ Mold Bulk or Swab
☐ Methamphetamine by GC/MS Special Detection Limit Req: _____ 0.5 ug/wipe _____ 0.1 ug/wipe

Requested Turnaround: ☐ 7 Day ☐ 24 Hour ☒ Other 8 hour
☐ 3 Day ☐ Same Day
☐ 6-10 Day ☐ 24-48 Hour

Total Number of Samples: 7

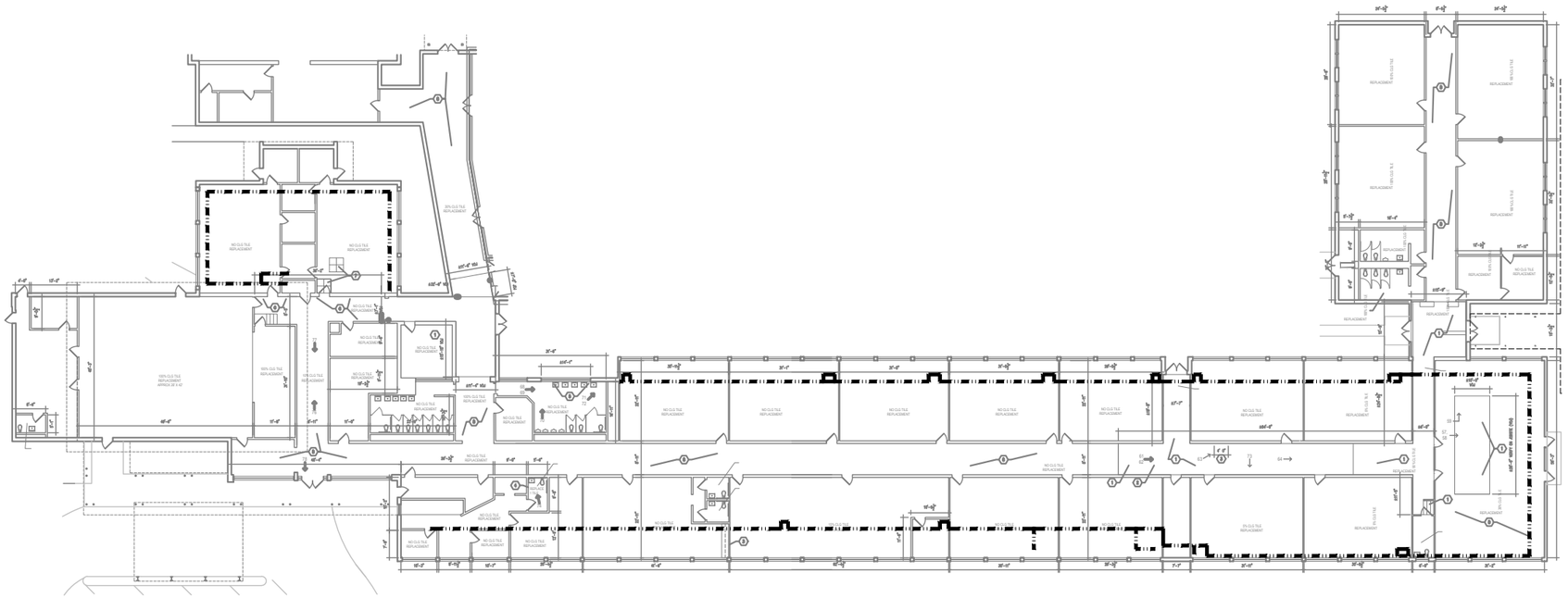
Comments/Instructions: Call Chris White with verbal results 225-445-6626

SEND RESULTS TO: cwhite@wynnwhite.com, dwhite@wynnwhite.com, sbezet@wynnwhite.com tpeterson@wynnwhite.com

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Engineers • Trainers • Consultants

WYNN L. WHITE CONSULTING ENGINEERS, INC.

Form 4.9.80.2
Post Office Box 83527
Baton Rouge, LA 70884-3527
Voice Mail (225) 761-9141
Fax No. (225) 761-4450



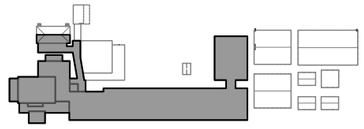
0' 20' 40' 60'

ABATEMENT PLAN INTERIOR
REFER TO SOLARI + MATHES BRIERRE ARCHITECTS
SHEETS A-101 AND A-102

REMOVE AND DISPOSE OF TSI

APPROXIMATE TSI ROUTING SHOWN.
CONTRACTOR SHALL FIELD VERIFY QUANTITIES AND CONDITIONS.

N
PROJECT NORTH



KEY MAP
NOT TO SCALE

This drawing and design are the property of Wynn L. White Consulting Engineers, Inc. They are submitted on the condition that they are not to be used, reproduced, or copied, in whole or in part, or used for furnishing information to others, without prior written consent of Wynn L. White Consulting Engineers, Inc. All common law rights of copyright and otherwise are hereby specifically reserved.
◆ THIS DRAWING IS APPROVED FOR CONSTRUCTION
◇ THIS DRAWING IS NOT APPROVED FOR CONSTRUCTION

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.
PHONE: (225) 761 - 9141
FAX: (225) 761 - 4450

CLIENT: CALCASIEU PARISH SCHOOL BOARD

PROJECT: OAK PARK ELEMENTARY SCHOOL

SHEET: ASBESTOS ABATEMENT PLAN INTERIOR

STATE OF LOUISIANA
CHRISTOPHER M. WHITE
License No. [illegible]
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

PROJECT NUMBER
23013
FACILITY NUMBER
114

REVISION		
NO.	DATE	BY

DRAWN BY:	JLY
CHECKED BY:	CMW
DATE:	5/15/2023
SCALE:	AS NOTED
SHEET	1 OF 2

Addendum Number 1
May 22, 2023

Calcasieu Parish School Board

Asbestos Abatement at Oak Park Elementary School
Engineer's Project Number: 22013

The following changes, additions, deletions or alterations to the Specifications or Drawings shall be incorporated into the Specifications and Drawings for the above captioned project and acknowledged in the Contractor's Proposal and in the agreement between Owner and Contractor.

Item 1 In lieu of delivering hard copy bids, bidders may email bids to Kenny Brown (kenny.brown@cpsb.org) and Chris White (cwhite@wynnwhite.com) before the appointed bid opening date and time.

Item 2 Project photographs showing TSI are attached for informational purposes.

This Addendum Number 1 contains:

Items 1-2 (1 page).
Project Photographs (5 pages).



End of Addendum Number 1











CALCASIEU PARISH SCHOOL BOARD

SPECIFICATIONS AND CONTRACT DOCUMENTS
FOR
ASBESTOS ABATEMENT AT
OAK PARK ELEMENTARY SCHOOL

MAY 2023

Project Number
23013



MAY 15, 2023

Wynn L. White Consulting Engineers, Inc.
PO Box 83527
Baton Rouge, LA 70884-3527
Phone: (225) 761-9141
Fax: (225) 761-4450
Email: wwhite@wynnwhite.com

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.

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POST PROJECT SUBMITTAL PACKAGE

ASBESTOS ABATEMENT PROJECT NAME:_____

_____

SCHOOL NAME: _____

CONTRACTOR LICENSE DATA & ACCREDITATION: _____

_____

SUPERVISOR'S ACCREDITATION: _____

WORKER ACCREDITATION: _____

WORKER SIGN-IN SHEETS: _____

DAILY PROJECT LOG: _____

ADVF: _____

WORK AREA VISUAL INSPECTION CERTIFICATION: _____

ABATEMENT CONTRACTOR PERSONAL AIR SAMPLING DATA: _____

DATES OF PROJECT:_____

QUANTITIES & TYPE OF ACM REMOVED:_____

NOTE: The Contractor shall submit this package along with Final application for payment.

Calcasieu Parish School Board shall process the final Application for payment upon receipt of the complete Package.

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ARTICLE 1 – DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. *Issuing Office* – The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

2.01 Complete sets of the Bidding Documents may be obtained from the Engineer.

2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

3.01 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit written evidence data as called for below:

A. Evidence of Bidder's authority to do business in Louisiana.

B. Bidder's state contractor license number and asbestos abatement contractor license number.

3.02 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 4 – EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

4.01 Subsurface and Physical Conditions

A. The Supplementary Conditions identify:

1. Those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site.

2. Those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. Copies of reports and drawings referenced in Paragraph 4.01.A will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the

Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.02 of the General Conditions has been identified and established in Paragraph 4.02 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

4.02 Underground Facilities

A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

4.03 Hazardous Environmental Condition

A. The Supplementary Conditions identify any reports and drawings known to Owner relating to a Hazardous Environmental Condition identified at the Site.

B. Copies of reports and drawings referenced in Paragraph 4.03.A will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.06 of the General Conditions has been identified and established in Paragraph 4.06 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

4.04 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 4.06 of the General Conditions.

4.05 On request, Owner will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates. Bidder shall comply with Owner's scheduling and access requirements.

4.06 A. Reference is made to Article 7 of the Supplementary Conditions for the identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request, Owner will provide to each Bidder for examination access to or copies of contract documents (other than portions thereof related to price) for such other work.

4.07 It is the responsibility of each Bidder before submitting a Bid to:

A. examine and carefully study the Bidding Documents, and the other related data identified in the Bidding Documents;

B. visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;

C. become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;

D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in Paragraph 4.02 of the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in the Paragraph 4.06 of the Supplementary Conditions as containing reliable "technical data";

E. consider the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from

visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs;

F. agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;

G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;

H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder; and

I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 5 – PRE-BID CONFERENCE

5.01 A pre-Bid conference will be held at 10:00 a.m. local time on 5/18/23 at Oak Park Elementary School, 2001 18th Street, Lake Charles, LA 70601.Representatives of Owner and Engineer will be present to discuss the Project. Bidders are required to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 6 – SITE AND OTHER AREAS

6.01 The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner

unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

ARTICLE 8 – BID SECURITY

8.01 Bid security is not required on this project.

ARTICLE 9 – CONTRACT TIMES

9.01 The work shall be substantially completed within 45 days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 60 days after the date when the Contract Times commence to run.

ARTICLE 10 – LIQUIDATED DAMAGES

10.01 Contractor and Owner recognize that time is of the essence as stated in Paragraph 9.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 9.01 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner $500.00 for each day that expires after the time specified in Paragraph 9.01 above for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner $500.00 for each day that expires after the time specified in Paragraph 9.01 above for completion and readiness for final payment until the Work is completed and ready for final payment.

10.02 Not Used.

ARTICLE 11 – SUBSTITUTE AND "OR-EQUAL" ITEMS

11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or-equal" items. Whenever it is specified or described in the Bidding Documents that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Agreement.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS AND OTHERS

12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by Owner. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, without an increase in the Bid.

12.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions.

12.03 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.

ARTICLE 13 – PREPARATION OF BID

13.01 The Bid Form is included with the Bidding Documents. Additional copies may be obtained from Engineer.

13.02 All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each Bid item, alternative, and unit price item listed therein. In the case of optional alternatives the words "No Bid," "No Change," or "Not Applicable" may be entered.

13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate representative accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown.

13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown.

13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.

13.06 A Bid by an individual shall show the Bidder's name and official address.

13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.

13.08 All names shall be printed in ink below the signatures.

13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.

13.10 Postal address and telephone number for communications regarding the Bid shall be shown.

13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in Louisiana. Bidder's state contractor license number shall also be shown on the Bid Form.

ARTICLE 14 – BASIS OF BID; COMPARISON OF BIDS

Proposals are solicited on the basis of the total bid (sum of all items) price for the work on the Project, complete, as set out in the Contract Documents. The proposals shall be made on the printed forms furnished for submitting bids. The blank spaces must be filled in correctly where indicated for all items.

Proposals that contain any omission, erasures, or alterations or that contain additions or items not required by either the Contract Specifications and Plans, or that are deemed by the Owner to be manifestly unbalanced or that contain irregularities of any kind may be rejected as informal.

In case of conflict between words and numbers, the words will govern. A conditional or qualified bid will not be accepted.

14.01 Lump Sum

A. Bidders shall submit a Bid on a lump sum basis as provided for in the Bid Form. Bid prices will be compared based on total lump sum bid.

ARTICLE 15 – SUBMITTAL OF BID

15.01 The Bid Form is to be completed and submitted with the following documents:

A. List of proposed Subcontractors.

B. Contractor's License Number Statement.

C. Evidence of authority to do business in Louisiana.

15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, state contractor's license number of the bidder, and shall be accompanied by the other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to Calcasieu Parish School Board, 3800 Mallard Cove Drive, Lake Charles, LA 70615, Attn: Kenny Brown.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.

16.02 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 – OPENING OF BIDS

17.01 Bids will be opened 5/26/2023 at 11:00 a.m. CST at the offices of the Calcasieu Parish School Board Maintenance Office, 3800 Mallard Cove Drive, Lake Charles, LA 70615. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.

19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.

19.03 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

19.04 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.

19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work in accordance with the Contract Documents.

19.06 If the Contract is to be awarded, Owner will award the Contract to the Bidder whose Bid is in the best interests of the Project.

ARTICLE 20 – CONTRACT SECURITY AND INSURANCE

20.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by such bonds.

ARTICLE 21 – SIGNING OF AGREEMENT

21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement along with the other Contract Documents which are identified in the Agreement as attached thereto. Within 15 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within ten

days thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

ARTICLE 22 – RETAINAGE

22.01 Provisions concerning Contractor's rights to deposit securities in lieu of retainage are set forth in the Agreement.

days thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

ARTICLE 22 – RETAINAGE

22.01 Provisions concerning Contractor's rights to deposit securities in lieu of retainage are set forth in the Agreement.

RESOLUTION

BE IT RESOLVED that _____

Officer/Owner of _____

is hereby authorized to sign any contract or document on behalf of _____

_____

_____
Officer/Owner

_____
Signature Officer/Owner

SWORN TO AND SUBSCRIBED before me this _____ day of _____ 20_____,
in Lake Charles, Louisiana.

_____
NOTARY PUBLIC

LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: Calcasieu Parish School Board
3800 Mallard Cove Drive
Lake Charles, LA 70615

BID FOR:
Oak Park Elementary School

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: Wynn L. White Consulting Engineers, Inc. and dated: May 2023.

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA:** (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging)

_____

TOTAL BASE BID: For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" but not alternates) the sum of:

_____Dollars ($_____)

ALTERNATES: For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

Alternate No. 1 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:

_____Dollars ($_____)

Alternate No. 2 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:

_____Dollars ($_____)

Alternate No. 3 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:

_____Dollars ($_____)

NAME OF BIDDER: _____ _____

ADDRESS OF BIDDER: _____

_____

LOUISIANA CONTRACTOR'S LICENSE NUMBER: _____

NAME OF AUTHORIZED SIGNATORY OF BIDDER: _____

TITLE OF AUTHORIZED SIGNATORY OF BIDDER: _____

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER: _____

DATE: _____

STATE OF LOUISIANA

PARISH OF _____

PROJECT NO. _____

NAME _____

_____

LOCATION _____

AFFIDAVIT

Before me, the undersigned authority, duly commissioned and qualified within and for the state and parish aforesaid, personally came and appeared _____ _____ representing _____, who, being by me first duly sworn deposed and said that he has read this affidavit and does hereby agree under oath to comply with all provisions herein as follows:

PART I

Section 2224 of Part I of Chapter 10 of Title 38
of the Louisiana Revised Statues of 1950 as amended.

That affiant employed no person, corporation, firm association, or other organization, either directly of indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the affiant whose services in connection with the construction of the public building or project or in securing the public contract were in the regular course of their duties for affiant; and

That no part of the contract price received by affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services in connection with the construction of the public building or project were in the regular course of their duties for affiant.

Notice of Award

Date: _____

Project: Asbestos Abatement at Oak Park Elementary	
Owner: Calcasieu Parish School Board	Owner's Contract No.:
Contract: Asbestos Abatement at Oak Park Elementary	Engineer's Project No.: 23013
Bidder:	

You are notified that your Bid dated _____ for the above Contract has been considered. You are the Successful Bidder will receive a purchase order to complete the project.

The Contract Price of your Contract is _____ Dollars ($_____).

__ copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

___ sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within [10] days of the date you receive this Notice of Award.

1. Deliver Insurance Certificates as required.
2. Other conditions precedent: _____.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default and annul this Notice of Award.

Calcasieu Parish School Board
Owner

By: _____
Authorized Signature

_____
Title

Notice to Proceed

Date: _____

Project: Asbestos Abatement at Oak Park Elementary	
Owner: Calcasieu Parish School Board	Owner's Contract No.:
Contract:	Engineer's Project No.: 23013
Contractor:	
Contractor's Address:	

You are notified that the Contract Times under the above Contract will commence to run on_____. On or before that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 4 of the Agreement, the date of Substantial Completion is _____, and the date of readiness for final payment is _____.

Before you may start any Work at the Site, Paragraph 2.01.B of the General Conditions provides that you and Owner must each deliver to the other (with copies to Engineer and other identified additional insureds and loss payees) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Calcasieu Parish School Board

Owner

Given by:

Engineer

Title: Project Manager

Date:

- PAGE –

-

- INTENTIONALY BLANK -

Change Order

No. _____

Date of Issuance: _____ Effective Date: _____

Project:	Owner: Calcasieu Parish School Board	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

The Contract Documents are modified as follows upon execution of this Change Order:

Description:

Attachments (list documents supporting change):

CHANGE IN CONTRACT PRICE:	**CHANGE IN CONTRACT TIMES:**
Original Contract Price: $_____	Original Contract Times: ☐ Working days ☐ Calendar days Substantial completion (days or date): _____ Ready for final payment (days or date): _____
[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____: $_____	[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____: Substantial completion (days): _____ Ready for final payment (days): _____
Contract Price prior to this Change Order: $_____	Contract Times prior to this Change Order: Substantial completion (days or date): _____ Ready for final payment (days or date): _____
[Increase] [Decrease] of this Change Order: $_____	[Increase] [Decrease] of this Change Order: Substantial completion (days or date): _____ Ready for final payment (days or date): _____
Contract Price incorporating this Change Order: $_____	Contract Times with all approved Change Orders: Substantial completion (days or date): _____ Ready for final payment (days or date): _____

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: _____	By: _____	By: _____
Engineer (Authorized	Owner (Authorized	Contractor (Authorized
Date: _____	Date: _____	Date: _____

Approved by Funding Agency (if applicable):

_____ Date: _____

Work Change Directive

No. _____

Date of Issuance: _____ Effective Date: _____

Project:	Owner:	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

Contractor is directed to proceed promptly with the following change(s):

Item No.	Description

Attachments (list documents supporting change):

Purpose for Work Change Directive:

Authorization for Work described herein to proceed on the basis of Cost of the Work due to:

- ☐ Nonagreement on pricing of proposed change.
- ☐ Necessity to expedite Work described herein prior to agreeing to changes on Contract Price and Contract Time.

Estimated change in Contract Price and Contract Times:

Contract Price $ _____ (increase/decrease) Contract Time _____ (increase/decrease) days

Recommended for Approval by Engineer:	Date
Authorized for Owner by:	Date
Received for Contractor by:	Date
Received by Funding Agency (if applicable):	Date:

Contractor's Application for Payment No. _____

	Application Period:	Application Date:
To (Owner):	From (Contractor):	Via (Engineer): **Wynn L. White Consulting Engineers, Inc.**
Project:	Contract:	
Owner's Contract No.:	Contractor's Project No.:	Engineer's Project No.:

Application For Payment

Change Order Summary

Approved Change Orders		
Number	Additions	Deductions
TOTALS		
NET CHANGE BY CHANGE ORDERS		

1. ORIGINAL CONTRACT PRICE	**$** _____
2. Net change by Change Orders	**$** _____
3. Current Contract Price (Line 1 ± 2)	**$** _____
4. TOTAL COMPLETED AND STORED TO DATE (Column F on Progress Estimate)	**$** _____
5. RETAINAGE:	
a. X _____ Work Completed	**$** _____
b. X _____ Stored Material	**$** _____
c. Total Retainage (Line 5a + Line 5b)	**$** _____
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5c)	**$** _____
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)	**$** _____
8. AMOUNT DUE THIS APPLICATION	**$** _____
9. BALANCE TO FINISH, PLUS RETAINAGE (Column G on Progress Estimate + Line 5 above)	**$** _____

Contractor's Certification

The undersigned Contractor certifies that to the best of its knowledge: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

By:	Date:

Payment of: $ _____
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____ _____
(Engineer) (Date)

Payment of: $ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ _____
(Owner) (Date)

Approved by: _____ _____
Funding Agency (if applicable) (Date)

WYNN L. WHITE CONSULTING ENGINEERS, INC.

Progress Estimate

Contractor's Application

For (contract):	Application Number:
Application Period:	Application Date:

A		B	Work Completed		E	F		G
Item		Scheduled Value	C	D	Materials Presently Stored (not in C or D)	Total Completed and Stored to Date (C + D + E)	% (F) B	Balance to Finish (B - F)
Specification Section No.	Description		From Previous Application (C+D)	This Period				
	Totals							

Progress Estimate

Contractor's Application

For (contract):							Application Number:			
Application Period:							Application Date:			
A				B	C	D	E	F		
Item		Bid Quantity	Unit Price	Bid Value	Estimated Quantity Installed	Value	Materials Presently Stored (not in C)	Total Completed and Stored to Date (D + E)	% (F) B	Balance to Finish (B - F)
Bid Item No.	Description									
	Totals									

Stored Material Summary

Contractor's Application

For (contract):									Application Number:
Application Period:									Application Date:

A	B	C	D		E		F		G
Invoice No.	Shop Drawing Transmittal No.	Materials Description	Stored Previously		Stored this Month		Incorporated in Work		Materials Remaining in Storage ($) (D + E - F)
			Date (Month/Year)	Amount ($)	Amount ($)	Subtotal	Date (Month/Year)	Amount ($)	
		Totals							

Project:	
Owner:	Owner's Contract No.:
Contract:	Engineer's Project No.:

This [tentative] [definitive] Certificate of Substantial Completion applies to:

All Work under the Contract Documents: The following specified portions of the Work:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A [tentative] [definitive] list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:

Amended Responsibilities Not Amended

Owner's Amended Responsibilities:

Contractor's Amended Responsibilities:

The following documents are attached to and made part of this Certificate:

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Executed by Engineer	Date
Accepted by Contractor	Date
Accepted by Owner	Date

RECOMMENDATION OF ACCEPTANCE

TO: Calcasieu Parish School Board

DATE: _____

PROJECT NO: _____

PROJECT NAME: _____

_____

DESIGNER: Wynn L. White Consulting Engineers, Inc.

CONTRACTOR: _____

OWNER: Calcasieu Parish School Board

I certify that, to the best of my knowledge and belief, this project is complete or substantially complete in accordance with the plans and specifications to the point where it can be used for the purpose which was intended. It is recommended that it be accepted.

DATE OF ACCEPTANCE: _____

CONTRACT DATE OF COMPLETION: _____

NUMBER OF DAYS (Overrun) (Underrun)

(As of Acceptance Date): _____

LIQUIDATED DAMAGE PER DAY STIPULATED IN CONTRACT $500.00

VALUE OF PUNCH LIST (Attach Itemized List) $ _____

Was part of project occupied prior to Acceptance:
PORTION OCCUPIED: Attach Beneficial Occupancy Forms

Signed: _____

Wynn L. White Consulting Engineers, Inc.
ENGINEER

For Use of Owner
I concur in the Acceptance of this project:

Signed: _____

_____
OWNER

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by

AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A Practice Division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by

CONSTRUCTION SPECIFICATIONS INSTITUTE

STANDARD GENERAL CONDITIONS OF THE
CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidder*—The individual or entity who submits a Bid directly to Owner.

7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).

8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.

9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.

16. *Cost of the Work*—See Paragraph 11.01 for definition.

17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *Engineer*—The individual or entity named as such in the Agreement.

20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

21. *General Requirements*—Sections of Division 1 of the Specifications.

22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.

23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.

29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.

30. *PCBs*—Polychlorinated biphenyls.

31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.

37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.

42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.

43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.

44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.

46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.

47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.

48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

49. *Unit Price Work*—Work to be paid for on the basis of unit prices.

50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 *Terminology*

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional

judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

   a. does not conform to the Contract Documents; or

   b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

   c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.

F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.

C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work*: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work*: If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation , (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or

2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party

shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and

2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer's Review*: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and

b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

c. Contractor failed to give the written notice as required by Paragraph 4.03.A.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all such information and data;

b. locating all Underground Facilities shown or indicated in the Contract Documents;

c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the

Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for

Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.

E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

    a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or

    b. by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);

5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

6. include completed operations coverage:

    a. Such insurance shall remain in effect for two years after final payment.

    b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.

B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.

D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 *Waiver of Rights*

A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by,

arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.

B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the

objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and

3) it has a proven record of performance and availability of responsive service.

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times; and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.

c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,

b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified, and

b) available engineering, sales, maintenance, repair, and replacement services; and

4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

E. *Engineer's Cost Reimbursement*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor

2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

a. Submit number of copies specified in the General Requirements.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:*

a. Submit number of Samples specified in the Specifications.

b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures:*

1. Before submitting each Shop Drawing or Sample, Contractor shall have:

   a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

   b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

   c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

   d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the

Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

6. any inspection, test, or approval by others; or

7. any correction of defective Work by Owner.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .

B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to Contractor prior to starting any such other work; and

2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.

C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 *Compliance with Safety Program*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is

proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be

responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

A. *Engineer's Decision Required*: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

C. *Engineer's Action*: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part;

2. approve the Claim; or

3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

    a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

    b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

    c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

    d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

    e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

    f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

    g. The cost of utilities, fuel, and sanitary facilities at the Site.

    h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.

    i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at

the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances:*

1. Contractor agrees that:

a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect to any other item of Work; and

3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or

neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.

F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.

B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the

parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or

2. correct such defective Work; or

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal

and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. *Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend

payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

    a. the Work has progressed to the point indicated;

    b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and

    c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

    a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

    b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

    a. to supervise, direct, or control the Work, or

    b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

    c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

    d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or

    e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or

tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

b. the Contract Price has been reduced by Change Orders;

c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or

d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. *Payment Becomes Due:*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. *Reduction in Payment:*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:

a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;

b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

c. there are other items entitling Owner to a set-off against the amount recommended; or

d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

   a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;

   b. consent of the surety, if any, to final payment;

   c. a list of all Claims against Owner that Contractor believes are unsettled; and

   d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or

receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Payment Becomes Due:*

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);

2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;

3. Contractor's repeated disregard of the authority of Engineer; or

4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and

3. complete the Work as Owner may deem expedient.

C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of

all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or

2. agrees with the other party to submit the Claim to another dispute resolution process; or

3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. 1910-8, 1996 ed.) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

SC 1.

The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 ed.) have the meanings assigned to them in the General Conditions.

SC 4.02

No sub surface maps or reports are included herewith. Contractor shall verify sub surface conditions.

SC 5.04.A.7 Add a new paragraph immediately after 5.04.A.6

5.04.A.7 The insurance provided by CONTRACTOR shall have no pollution exclusions.

SC 5.04.A.8

Add a new paragraph immediately after 5.04.A.7. Specific coverage to be provided by contractor:

SUPPLEMENTARY CONDITIONS

WORKMEN'S COMPENSATION

Applicable State	Standard Louisiana
Employer's Liability	$500,000

CONTRACTOR'S LIABILITY INSURANCE

	Coverage Required For Projects	
	Less Than $1,000,000	More Than $1,000,000
Bodily Injury and Property Damage Combined Single Limit (CSL) Includes Products and Completed Operations and Contractural Liability		
Each Occurrence	$500,000(CSL)	$1,000,000(CSL)
Aggregate	$500,000(CSL)	$1,000,000(CSL)
Personal Injury Combined Single Limit (Aggregate Limits) Including Products and Completed Operations and Contractural Liability		
Each Person Aggregate	$500,000(CSL)	$1,000,000(CSL)
General Aggregate	$500,000(CSL)	$1,000,000(CSL)
Automobile Liability Combined Single Limit Owner, Non-Owned and Hired Car Bodily Injury and Property Damage	$300,000(CSL)	$ 500,000(CSL)
XCU Coverage	Remove Exclusion	

Umbrella Policy - The Contractor shall procure and maintain during the life of the Contract an Umbrella Policy in the amount of $1,000,000 in excess of all other Insurance requirements.

OWNER'S LIABILITY INSURANCE

	Coverage Required For Projects	
	Less Than $1,000,000	More Than $1,000,000
Bodily Injury and Property Damage - Combined Single Unit		
Each Occurrence	$500,000(CSL)	$1,000,000(CSL)
Aggregate	$500,000(CSL)	$1,000,000(CSL)

SUPPLEMENTARY CONDITIONS

SC 5.05

Delete paragraph 5.05 of the General Conditions in its entirety and insert the following in its place:

Owners Protective Liability Insurance and Indemnity:

The Contractor shall, at his expense, provide the Owner with an Owner's Protective Liability Policy naming the Owner as the named insured and each of their officers, agents and employees as additional insureds under that policy, said policy to protect and defend said parties from claims which may arise from operations under the contract.

SC 6.08

Delete paragraph 6.08 of the General Conditions in its entirety and insert the following in its place:

PERMITS:

6.08 Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall timely obtain and pay for all permits, notices and approvals, including but not limited to construction permits and licenses and environmental permits and approvals. OWNER shall assist CONTRACTOR, when necessary by providing its consent as may be required as OWNER in order to obtain such permits, notices, approvals and licenses. Contractor agrees to utilize asbestos abatement contractors having current certification with the Environmental Protection Agency and/or State of Louisiana and that asbestos material or asbestos-contaminated material will only be disposed of at landfills or waste sites certified to accept such waste and that CONTRACTOR shall dispose of all other waste materials in accordance with all applicable local, state, and federal regulations. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

SC 6.13 Add a new paragraph immediately after 6.13B

SC 6.13C Post Project Submittals

Contractor shall add items listed on the Post Project Submittal Package sheet to required post project submittals.

SC 12.03 B

Delete paragraph 12.03 B of the General Conditions in its entirety and insert the following in its place:

The Owner shall not be liable to contractor or any subcontractor for claims or damages of a monetary or any other nature caused by or arising out of delays contemplated or not contemplated at the signing of the contract. The sole remedy against the Owner for delays shall be the allowance to claimant of additional time for completion of the work.

SC 17.07 Add a new paragraph immediately after 17.06

SC 17.07 Protection of Lives and Property

(a) To protect the lives and health of its employees under the contract, the Contractor shall comply with all pertinent provisions of the "Manual of Accident Prevention in Construction" issued by the Associated General Contractors of America, Inc., and shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medial attention or causing loss of time from work, arising out of and in the course of employment or work under the contract.

SC 17.08 Add a new paragraph immediately after 17.07

SC 17.08

The Contractor alone shall be responsible for the safety, efficiency, and adequacy of its plant, appliances, and methods, and for any damage which may result from their failure or their improper construction, maintenance or operation.

SC 17.09 Add a new paragraph immediately after 17.08

SC 17.09

No member or delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this contract or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

SC 17.10 Add a new paragraph immediately after 17.09

SC 17.10

No official of the Owner who is authorized in such capacity and on behalf of the Owner to negotiate, make, accept, or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspecting, construction or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part thereof.

No officer, employee, architect, attorney, engineer or inspector of or for the Owner who is authorized in such capacity and on behalf of the Owner who is in any legislative, executive, supervisor, or other similar functions in connection with the construction of the project shall become directly or indirectly interested personally in this contract or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

SC 17.11 Add a new paragraph immediately after 17.10

SC 17.11 RECORDATION OF CONTRACT

Owner shall record the Contract and Bond or bonds and other contract documents with the Clerk of Court or the Recorder of Mortgages of the Parish where the work is located. Owner will deduct cost from contract amount.

SC 17.12 Add a new paragraph immediately after 17.11

SC 17.12 PROTECTION OF EXISTING PLANT, FIXTURES, EQUIPMENT, AND FINISHES

The Contractor shall not damage existing plant, fixtures, equipment, and finishes; and shall repair, replace or pay for existing, plant, fixtures, equipment, and finishes damaged by his operation. The Contractor shall endeavor to minimize the chances of damage as much as possible. Contractor shall prepare a "Damaged" log of existing plant, fixtures, equipment, and finishes prior to beginning work. Log shall note the item and its state of damage. Log shall be supplemented with digital video or digital photographs.

Contractor shall submit log to Engineer prior to starting work. Failure to submit a "Damaged" log shall be interpreted by Engineer that no damaged items exist prior to the Contractors moving on site. ANY ITEM DAMAGED WITH THE DAMAGE NOT DOCUMENTED IN LOG SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE AT NO ADDITIONAL COST TO OWNER. No extra pay will be due the Contractor because of delay or expense owing to the condition or close proximity of the work hereunder to any existing plant, fixture, equipment, or finish.

SUPPLEMENTARY CONDITIONS

SC 17.13 Add a new paragraph immediately after 17.12

SC 17.13 ACCREDITED PERSONNEL

Contractor shall use LaDEQ accredited personnel for all asbestos related work on this project.

SECTION 02 80 10 - SUMMARY OF THE WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The contract and other Division 2 sections apply to this section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Work areas are shown on the project plans.

Contractor shall remove and dispose of thermal systems insulation and thermal system insulation debris as regulated asbestos containing material. Contractor shall remove and store in Owner designated storage area all suspended ceiling grid and ceiling tile required to access TSI. Contractor shall reinstall suspended ceiling grid and ceiling tile after achieving work area clearance. Contractor shall replace suspended ceiling grid and ceiling tile damaged as a result of work of this contract. Contractor shall police work areas and remove and dispose of all white, chalky material as asbestos containing materials. Contractor shall demolish original ceiling material as required to access TSI. Contractor shall remove and dispose of uncontaminated demolished ceiling materials as construction debris. Contractor shall encapsulate interstitial space above ceiling and clean and decontaminate areas as required to achieve work area clearance. Contractor shall include exploratory demolition and waste disposal to access ACM in his bid.

Owner: Calcasieu Parish School Board.

B. **Contract Documents**, dated May 2023 were prepared by Wynn L. White Consulting Engineers, Inc., 17485 Opportunity Drive, Baton Rouge, LA 70817.

1.3 ASBESTOS CONTAINING MATERIALS:

A. **The Work** of this contract involves activities that will disturb asbestos and presumed asbestos-containing materials (PACM). The location of these materials known to be present at the worksite is set forth in the contract documents. If any other of these materials is found, notify the owner and Engineer about the location and quantity of these materials within 24 hours of the discovery.

1.4 ASBESTOS HEALTH RISK:

A. The disturbance or dislocation of ACM may cause asbestos fibers to be released into the building's atmosphere, thereby creating a potential health risk to workers and building occupants. Apprise all workers, supervisory personnel, subcontractors and consultants who will be at the job site of the seriousness of the risk and of proper work procedures that must be followed.

B. Where in the performance of the work, workers, supervisory personnel, subcontractors, or consultants may encounter, disturb, or otherwise function in the immediate vicinity of any identified ACM, take appropriate continuous measures as necessary to protect all building occupants from the risk of exposure to airborne asbestos. Such measures shall include the procedures and methods described herein, and compliance with regulations of applicable federal, state and local agencies.

1.5 CONTRACTOR USE OF PREMISES

A. Use of the Site: Limit use of the premises to work in areas indicated. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.

1. Owner Occupancy: Coordinate with Owner to allow for Owner occupancy of areas not involved in the work under this contract, or work areas under this contract that have been completed and are ready for release to the Owner.

2. Driveways and Entrances: Keep driveways and entrances serving the premises clear and available to the Owner, the Owner's employees, and emergency vehicles at all times. Coordinate use of these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment onsite.

B. Use of the Existing Building: Maintain the existing building and jobsite in a secure condition throughout the construction period. Take all precautions necessary to secure the existing building and jobsite during the construction period.

1. Smoking: Smoking or open fires will not be permitted within the building enclosure or on the premises.

2. Toilet Rooms: use of existing toilets within the building by the Contractor's personnel will not be permitted.

1.6 OCCUPANCY REQUIREMENTS

A. Full Owner Occupancy: The Owner may occupy the site during the entire construction period. Cooperate with the Owner during construction operations to minimize conflicts and maintain site security. Perform the Work so as not to interfere with the Owner's operations.

B. Partial Owner Occupancy: The Owner reserves the right to occupy completed areas of the site prior to Substantial Completion, provided such occupancy does not interfere with completion of the Work. Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.

1.7 AIR MONITORING BY THE OWNER:

A. The Owner shall contract for air monitoring. Air monitoring shall be conducted both outside and inside of the work area during the work, and for clearance sampling at the end of the project

1. Outside of the Work Area: The Owner's air monitoring firm may sample air outside of the work area to detect faults in the work area isolation such as:
   a. Contamination of the building outside of the work area with airborne asbestos fibers.
   b. Failure of filtration or rupture in the differential pressure system,
   c. Contamination of air outside the building envelope with airborne asbestos fibers.

2. Inside the Work Area: The Owner's air monitoring firm may monitor airborne fiber counts in the Work Area. The purpose of this air monitoring is to detect airborne asbestos concentrations that may challenge the ability of the Work Area isolation procedures to protect the balance of the building or outside of the building from contamination by airborne fibers.

B. Work area clearance: Clearance air sampling by the Owner's air monitoring firm at the completion of asbestos abatement work is described in Section "Project Decontamination".

C. **Air monitoring** required by OSHA is work of the Contractor and is not covered in this section.

1.8 SCHEDULE OF AIR SAMPLES BY OWNER:

A. **Sample cassettes**: Samples will be collected on 25 mm. cassettes as follows:

1. **PCM:** 0.8 micrometer mixed cellulose ester.
2. **TEM:** 0.45 micrometer mixed cellulose ester or 0.40 micrometer polycarbonate, with 5.0 micron mixed cellulose ester backing filter.

B. **Number and Volume of Samples:** The number and volume of air samples given in the schedules is approximate. The exact number and volume of samples collected by the Owner may vary depending upon job conditions and the analytical method used.

C. **Sample Volume and Sensitivity:**

1. **PCM:** The sample volumes collected by the Owner's air monitoring firm will be determined by the following formula:

$$Volume = \frac{\left(\frac{Number\ of\ Fibers}{Area\ of\ 100\ fields}\right) X\ Total\ Filter\ Area}{\left(\frac{Limit\ Value}{4}\right)}$$

Where:
Number of fibers = 5 fibers/100 fields, based on a limit of detection (LOD) of 7 fibers/mm^2 on the filter
Area of 100 fields = 0.785mm^2
Total Filter Area = 385mm^2
Limit Value = as specified in the schedules of samples below

a. For purposes of this specification, the sample volume calculated above will be considered to be of sufficient size so that there is a 95% level of confidence that the value measured by each individual sample at the limit of detection (LOD) is less than or equal to the limit values specified below.
b. For purposes of this specification, the Limit of Detection (LOD) is defined as 7 fibers/mm^2 on the filter or 5 fibers/100 fields.
c. For purposes of this specification overloaded samples will be considered as exceeding the applicable limit value.

2. **TEM:** Analytical Sensitivity of 0.005 structures/cc as set forth in the AHERA regulation.

D. **Not Used**

E. **Daily:**

1. **From start of work** of Section "Temporary Enclosures" through the work of Section "Project Decontamination", the Owner may take samples.

2. **Sample volume and sensitivity:** inside the work area may vary depending upon conditions in the work area. If samples are overloaded at the sample volume required for a limit value equal to the "Stop Action Levels" or "Immediate Stop Action Levels" given later in this section, the level is considered to have been exceeded.

3. **PCM Samples:**

Location Sampled	Number of Samples	Limit Value (Fibers/cc)	Approx. Volume (Liters)	Rate (LPM)
Each Work Area	1	0.1	100	1-10
Outside Each Work Area at Critical Barrier	1	0.01	1,000	1-10
Clean Room	1	0.01	1,000	1-10
Equipment Decon	1	0.01	1,000	1-10
Outside Building	1	0.01	1,000	1-10
Output of Pressure Differential System	1	0.01	1,000	1-10

F. **Additional samples** may be taken at Owner's or Designer's discretion. If airborne fiber counts exceed allowed limits additional samples may be taken as necessary to monitor fiber levels.

1.9 ANALYTICAL METHODS USED BY THE OWNER:

A. The following methods will be used by The Owner in analyzing filters used to collect air samples. Sampling rates may be varied from printed standards to allow for high volume sampling.

1. Phase Contrast Microscopy (PCM) will be performed using the NIOSH 7400 method.
2. Transmission Electron Microscopy (TEM) will be performed using the analysis method set forth in the AHERA regulation 40 CFR Part 763 Appendix A.

1.10 LABORATORY TESTING BY OWNER:

A. **The services of a testing laboratory** will be employed by the Owner to perform laboratory analyses of the air samples. A microscope and technician will be set up at the job site, or samples will be sent overnight on a daily basis, so that verbal reports on air samples can be obtained within 24 hours. If on-site analysis is performed, the air sampling and analysis firm employed by the Owner shall participate in the Proficiency Analytical Testing (PAT) program administered by the American Industrial Hygiene Association (AIHA).

B. **The Contractor will have access** to all air monitoring tests and results upon written request.

C. **Written Reports:** of all air monitoring tests will be made available to the Contractor upon written request.

1.11 FIBERS AND STRUCTURES

A. Fibers Counted: The following procedure will be used to resolve any disputes regarding fiber types when a project has been stopped due to excessive airborne fiber counts.

1. Large Fibers: "Airborne Fibers" referred to above include all fibers regardless of composition as counted by phase contrast microscopy (PCM), unless additional analysis by transmission or scanning electron microscopy demonstrates to the satisfaction of the Designer that non-asbestos fibers are being counted. "Airborne Fibers" counted in samples analyzed by transmission electron microscopy shall be asbestos fibers, greater than 5 microns in length. For purposes of stop action levels, subsequent to analysis by electron microscopy, the number of "Airborne Fibers" shall be determined by multiplying the number of fibers, regardless of composition, counted by PCM by the proportion of fibers that are asbestos as determined by TEM (a number equal to, asbestos fibers counted, divided by all fibers counted in the electron microscopy analysis).

2. Small Structures: "Airborne Fibers" referred to above include asbestos structures (fibers, bundles, clusters or matrices) of any diameter and any length greater than 0.5 microns.

1.12 ADDITIONAL TESTING:

A. The Contractor may conduct air monitoring and laboratory testing. If he elects to do this the cost of such air monitoring and laboratory testing shall be at no additional cost to the Owner.

1.13 PERSONAL MONITORING:

A. Owner will not perform air monitoring for the Contractor to meet Contractor's OSHA requirements for personal sampling or any other purpose.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 STOP ACTION LEVELS:

B. Asbestos samples Inside Work Area: Maintain an average airborne count in the work area of less than the Stop Action Level given below for the type of respiratory protection in use. If the fiber counts rise above this figure for any sample taken, revise work procedures to lower fiber counts. If the Time Weighted Average (TWA) fiber count for any work shift or 8 hour period exceeds the Stop Action Level, stop all work except corrective action, leave pressure differential and air circulation system in operation and notify Designer. After correcting cause of high fiber levels, do not recommence work for 24 hours unless otherwise authorized, in writing, by Designer.

STOP ACTION LEVEL (f/cc)	IMMEDIATELY STOP LEVEL (f/cc)	MINIMUM RESPIRATOR REQUIRED	PROTECTION FACTOR
0.1	0.5	Half face	10

0.5	2.5	PAPR	50
1.0	5.0	Supplied Air	100

1. If airborne fiber counts exceed Immediate Stop Level given above for type of respiratory protection in use for any period of time cease all work except corrective action. Notify Designer. Do not recommence work until fiber counts fall below Stop Action Level given above for the type of respiratory protection in use. After correcting cause of high fiber levels, do not recommence work for 24 hours unless otherwise authorized, in writing, by Designer.

B. **Outside Work Area:** If any air sample taken outside of the Work Area exceeds 0.01 f/cc, immediately and automatically stop all work except corrective action. The Designer will determine the source of the high reading and so notify the Contractor in writing.

1. If the high reading was the result of a failure of Work Area isolation measures initiate the following actions:

   a. Immediately erect new critical barriers as set forth in Section “Temporary Enclosures” to isolate the affected area from the balance of the building. Erect Critical Barriers at the next existing structural isolation of the involved space (e.g. wall, ceiling, floor).

   b. Decontaminate the affected area in accordance with Section “Project Decontamination”.

   c. Require that respiratory protection as set forth in Section “Respiratory Protection” be worn in affected area until area is cleared for re-occupancy in accordance with Section “Project Decontamination”.

   d. Leave Critical Barriers in place until completion of work and ensure that the operation of the pressure differential system in the Work Area results in a flow of air from the balance of the building into the affected area.

   e. If the exit from the clean room of the personnel decontamination unit enters the affected area, establish a decontamination facility consisting of a Shower Room and Changing Room as set forth in Section “Decontamination Units” at entry point to affected area.

   f. After Certification of Visual Inspection in the Work Area remove critical barriers separating the work area from the affected area. Final air samples will be taken within the entire area as set forth in Section “Project Decontamination”.

2. If the high reading was the result of other causes initiate corrective action as determined by the Designer.

C. **Effect on Contract Sum:** Complete corrective work with no change in the Contract Sum if high airborne fiber counts were caused by Contractor's activities. The Contract Sum and schedule will be adjusted for additional work caused by high airborne fiber counts beyond the Contractor's control.

3.2 STOP WORK:

A. **If the Owner, Designer, or Project Administrator** presents a written stop work order, immediately and automatically conforms to that stop work order, while maintaining temporary enclosures and pressure differential. Do not recommence abatement work until authorized in writing by Owner, Designer or Project Administrator.

B. **Immediately initiate the following actions:** After being presented with a stop work order immediately:

1. Cease all asbestos removal activities, or any other activities that disturbs ACM.

2. Repair any fallen, ripped or otherwise failed work area isolation measures.

3. Maintain in operation all work area isolation measures including those required by Sections "Temporary Enclosures," "Temporary Pressure Differential & Air Circulation System," "Decontamination Units."

4. Maintain all worker protections including those required by Sections "Worker Protection - Asbestos Abatement," and "Respiratory Protection."

5. Fog the air in the work area with a mist of amended water to reduce airborne fiber levels.

C. **Do not recommence work** until authorized in writing by the Owner or Designer.

END OF SECTION – 02 80 10

SECTION 02 80 15 - COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 2 Specification Sections, apply to this Section.

1.2 SUMMARY

A. **This Section includes** administrative and supervisory requirements necessary for coordinating construction operations including, but not necessarily limited to, the following:

1. General project coordination procedures.
2. Conservation.
3. Plan of Action.
4. Contingency Plan.
5. Project Directory.
6. Notifications.
7. Pre-Construction Inspection.
8. Contractor's Construction Schedule.
9. Administrative and supervisory personnel.
10. Pre-Construction Conference
11. Progress Meetings
12. Coordination meetings.
13. Record Keeping.
14. Special Reports.

B. **Related Sections:** The following Sections contain requirements that relate to this Section:

1. "Section Submittals - Asbestos Abatement" for administrative procedures regarding submittals.
2. "Section Materials and Equipment - Asbestos Abatement" for coordinating general installation.
3. "Section Project Closeout - Asbestos Abatement" for coordinating contract closeout.

1.3 COORDINATION

A. **Owner Occupancy:** Coordinate construction operations and scheduling with partial occupancy requirements of the Owner and the Owner's use of utilities.

B. **Coordinate construction operations** included in various Sections of these Specifications to assure efficient and orderly completion of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.
1. Schedule construction operations in the sequence required to obtain the best results where execution of one part of the Work depends on execution of other components, before or after its own execution.
2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
3. Make provisions to accommodate items scheduled for later installation.

C. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.

1. Prepare similar memoranda for the Owner and separate contractors where coordination of their work is required.

D. **Administrative Procedures:** Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of schedules.
2. Installation and removal of temporary facilities.
3. Delivery and processing of submittals.
4. Progress meetings.
5. Project closeout activities.

E. **Conservation:** Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials.

1. Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work.

1.4 PLAN OF ACTION:

A. **Prepare a detailed plan** of the procedures proposed for use in complying with the requirements of this specification. Include in the plan the location and layout of decontamination areas, the sequencing of asbestos work, the interface of trades involved in the performance of work, methods to be used to assure the safety of building occupants and visitors to the site, disposal plan including location of approved disposal site, and a detailed description of the methods to be employed to control pollution. Expand upon the use of portable HEPA ventilation system, closing out of the building's HVAC system, maintaining required temperature and relative humidity inside the work area, method of removal to prohibit visible emissions, and packaging of removed asbestos debris.

1. Submit the Plan of Action to the Designer for information only, prior to the start of work.

1.5 CONTINGENCY PLAN:

A. **Contingency Plan:** Prepare a contingency plan for emergencies or any other event that may require breaching of work area containment or modification or abridgement of decontamination or work area isolation procedures. Include in this plan procedures for performing electrical and mechanical repairs inside containment after abatement work has begun. Include in plan specific procedures for decontamination or work area isolation. Include in plan measures to comply with Interim Life Safety Measures listed below. Note that nothing in this specification should impede safe exiting or providing of adequate medical attention in the event of an emergency. Items to be addressed in the plan include, but are not limited to the following:

1. Fire
2. Accident
3. Life threatening injury
4. Non-life threatening injury
5. Rescue
6. Power Failure
7. Pressure differential system failure
8. Breach of containment
9. Electrical faults or shock
10. Excessive heat / cold (if/when such limits are specified)
11. Supplied air system failure
12. Water leaks
13. Waste spills
14. Unauthorized entry into work area
15. Elevated air samples outside of containment

16. Repairs inside containment
17. Toxic releases

INTERIM LIFE SAFETY MEASURES:

1. Contractor shall ensure exits provide free and unobstructed egress. Personnel shall receive training if alternate exits must be designated.

2. Contractor shall ensure free and unobstructed access to emergency department/services and for emergency forces.

3. Contractor shall ensure fire alarm detection and suppression systems are not impaired. A temporary, equivalent, system shall be provided when any fire system is impaired. Temporary system must be inspected and tested monthly.

4. Contractor shall ensure temporary construction partitions are smoke tight and built of noncombustible materials.

5. Contractor shall provide additional firefighting equipment and use training for personnel.

6. No smoking within the building is allowed by contractors.

7. Contractor shall develop and enforce storage, housekeeping and debris removal procedures that reduce the flammable and combustible fire load to the lowest level necessary for daily operations.

8. Contractor shall conduct minimum of two (2) fire drills per shift per quarter in the affected areas.

9. Contractor shall increase surveillance hazard of buildings, grounds and equipment with special attention construction areas, construction storage and excavations.

10. Contractor shall train personnel when structural or compartmentation features of fire safety are compromised.

11. Contractor shall conduct organization-wide safety education programs to ensure awareness of any *Life Safety Code* deficiencies and construction hazards for the INTERIM LIFE SAFETY MEASURES.

1.6 PROJECT DIRECTORY

A. **Develop a directory** of all entities involved in the project. Include the Contractor's principal staff assignments, including the Superintendent and other personnel in attendance at the site. Identify individuals, their duties and responsibilities. List business name, contact person, normal business and emergency telephone, pager and fax numbers and addresses of:

1. Owner, Designer, and Project Administrator
2. Contractor’s General Superintendent, supervisory personnel and Contractor’s home office
3. Emergency services including but not limited to fire, ambulance, doctor, hospital, police, power company, telephone company.
4. Local, state, and federal agencies with jurisdiction over the project.

B. **Post:** Post copies of the Project Directory in the project meeting room, the temporary field office, each temporary telephone, and at entrance to clean room of Personnel Decontamination Unit.

1.7 NOTIFICATIONS

A. **Notify other entities** at the job site of the nature of the asbestos abatement activities, location of asbestos-containing materials (ACM), requirements relative to asbestos set forth in these specifications and

applicable regulations. Advance notification will be made to:

1. Owners of the building/facility;
2. Employees who will perform asbestos abatement work or related activities, or who will be in the work area during the course of the work of this contract.
3. Employers of employees who work and/or will be working in adjacent areas during the course of the work of this contract.

B. **Notify emergency service agencies** including fire, ambulance, police or other agency that may service the abatement work site in case of an emergency. Notification is to include methods of entering work area, emergency entry and exit locations, modifications to fire notification or fire fighting equipment, and other information needed by agencies providing emergency services.

C. **Notifications of Emergency:** Any individual at the job site may notify emergency service agencies if necessary without effect on this Contract or the Contract Sum.

1.8 PRE-CONSTRUCTION INSPECTION:

A. **Inspect areas** in which work will be performed, prior to commencement of work. Prepare a listing of damage to structure, surfaces, equipment or of surrounding properties which could be misconstrued as damage resulting from the work. Photograph or videotape existing conditions as necessary to document conditions. Submit to Designer for record purposes prior to starting work.

1.9 CONTRACTOR'S CONSTRUCTION SCHEDULE

A. **Bar-Chart Schedule:** Prepare a fully developed, horizontal bar-chart-type, contractor's construction schedule. Submit within 3 days after the date established for "Commencement of the Work."

1. Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week.
2. Within each time bar, indicate estimated completion percentage in 10 percent increments. As Work progresses, place a contrasting mark in each bar to indicate Actual Completion.
3. Prepare the schedule on a sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data for the entire construction period.
4. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate graphically the sequences necessary for completion of related portions of the Work.
5. Coordinate the Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittal Schedule, progress reports, payment requests, and other schedules.
6. Indicate Clearance of each Work Area in advance of the dates established for Clearance. Allow time for testing and other Designer's procedures necessary for certification of Clearance.
7. Indicate completion in advance of the date established for Substantial Completion. Indicate Substantial Completion on the schedule to allow time for the Designer's procedures necessary for certification of Substantial Completion.
8. Indicate completion and Clearance of each Work Area in advance of the date established for Substantial Completion. Allow time for testing and other Designer's procedures necessary for certification of Clearance and Substantial Completion.

B. **Phasing:** On the schedule, show how requirements for phased completion to permit Work by separate Contractors and partial occupancy by the Owner affect the sequence of Work.

C. **Work Stages:** Indicate important stages of construction for each major portion of the Work, including submittal review, testing, and installation.

1. Non-asbestos demolitions.

2. Preparation of the Work Area.
3. Asbestos removal.
4. Clearance testing.
5. Substantial Completion.

D. **Area Separations:** Provide a separate time bar to identify each major construction area for each major portion of the Work. Indicate where each element in an area must be sequenced or integrated with other activities.

E. **Cost Correlation:** At the head of the schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of Work performed as of the dates used for preparation of payment requests.

F. **Distribution:** Following response to the initial submittal, print and distribute copies to the Designer, Owner, subcontractors, and other parties required to comply with scheduled dates. Post copies in the Project meeting room and temporary field office.

1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

G. **Schedule Updating:** Revise the schedule after each meeting, event, or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

1.10 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

A. Project Supervisor: Provide a full-time Project Supervisor at the work site who is experienced in administration and supervision of asbestos abatement projects including work practices, protective measures for building and personnel, disposal procedures, project scheduling, management, etc. This person is the Contractor's Representative, and will function as the 'competent person' at the work site responsible for compliance with all applicable federal, state and local regulations, particularly those relating to ACM.

1. Training: The General Superintendent must have a current certification from a state approved trainer for a course that meets the requirements of the EPA Model Accreditation Plan for asbestos abatement contractor/supervisor (40 CFR part 763, Subpart E, Appendix C).

2. Experience: The General Superintendent must have demonstrable experience in the successful management of asbestos abatement projects that are similar to the work of this contract.

a. The General Superintendent must have a minimum of two (2) years' experience in the on-site management of asbestos abatement projects.
b. The General Superintendent must have had responsible charge of a minimum of ten (10) asbestos abatement projects similar in size and type to the work of this contract.

3. Competent Person: The General Superintendent is to be a Competent Person as required by OSHA in 29 CFR 1926.

B. Supervisors / Forepersons: Provide full-time Supervisors / Forepersons who are experienced in the supervision of asbestos abatement work areas including work practices, building and personnel, disposal practices, etc. These persons are contractor employees directly responsible to the General Superintendent.

C. Accreditation: The General Superintendent, Supervisors and Forepersons are to be accredited as an Asbestos Abatement Supervisor in accordance with the AHERA regulation 40 CFR Part 763, Subpart E, Appendix C.

1.11 PRE-CONSTRUCTION CONFERENCE:

A. **An initial progress meeting**, recognized as "Pre-Construction Conference" will be convened by the Designer prior to start of any work. The preconstruction conference will be scheduled before start of construction, at a time convenient to the Owner and the Designer. Meet at the project site, or as otherwise directed, with General Superintendent, Owner, Designer, Project Administrator, and other entities concerned with the asbestos abatement work.

B. **Attendees:** Authorized representatives of the Owner, Designer, and their consultants will be in attendance. An authorized representative of the Contractor and its superintendent; major subcontractors; manufacturers; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.

1. 72 hours' advance notice will be provided to all participants prior to convening Pre-Construction Conference.

C. **Agenda:** This is an organizational meeting, to review responsibilities and personnel assignments, to locate regulated areas and temporary facilities including power, light, water, etc. Items of significance that could affect progress will be discussed, including the following:

1. Tentative construction schedule.
2. Critical work sequencing.
3. Designation of responsible personnel.
4. Procedures for processing field decisions and Change Orders.
5. Procedures for processing Applications for Payment.
6. Distribution of Contract Documents.
7. Submittal of Shop Drawings, Product Data, and Samples.
8. Preparation of record documents.
9. Use of the premises.
10. Parking availability.
11. Office, work, and storage areas.
12. Equipment deliveries and priorities.
13. Safety procedures.
14. First aid.
15. Security.
16. Housekeeping.
17. Working hours.

1.12 PROGRESS MEETINGS:

A. **General:** In addition to specific coordination and pre-installation meetings for each element of work, and other regular project meetings held for other purposes, the Designer will hold general progress meetings as required. These meeting will be scheduled, where possible, at time of preparation of payment request.

B. **Attendees:** Representatives of the Owner and Designer will attend these meetings. In addition to representatives of the Contractor, each subcontractor, supplier, or other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the work. Require each entity then involved in planning, coordination or performance of work to be properly represented at each meeting.

C. **Agenda:** Be prepared to discuss the following items at the progress meetings. Review other items of significance that could affect progress.

1. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind

schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to insure that current and subsequent activities will be completed within the Contract Time.

2. Review the present and future needs of each entity present, including the following:

a. Interface requirements.
b. Time.
c. Sequences.
d. Status of submittals.
e. Deliveries.
f. Access.
g. Site utilization.
h. Temporary facilities and services.
i. Hours of work.
j. Hazards and risks.
k. Housekeeping.
l. Quality and work standards.
m. Change Orders.
n. Documentation of information for payment requests.

D. **Reporting:** Revise the Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule no later than 3 days after each meeting. Include a brief summary, in narrative form, of progress since the previous meeting and report.

1.13 COORDINATION MEETINGS

A. **Attend project coordination meetings** that will be conducted as required by the Designer at regular intervals convenient for all parties involved. Project coordination meetings are intended to coordinate the work of all contractors performing work on the site, and are in addition to specific meetings held for other purposes, such as regular progress meetings.

1.14 RECORD KEEPING:

A. **Daily Log:** Maintain a Daily Log (in an area accessible to the Owner, Designer and Project Administrator) as a bound, sequential, hand-written record carefully prepared daily that documents but is not limited to the following items:

1. Meetings; purpose, attendees, brief discussion

2. Special or unusual events, i.e. barrier breeching, equipment failures, accidents

3. Documentation of Contractor's completion of the following:

a. Inspection of work area preparation prior to start of removal and daily thereafter.
b. Removal of any sheet plastic barriers.
c. Contractor's inspections prior to spray back, lock back, encapsulation, enclosure or any other operation that will conceal the condition of ACM or the substrate from which such materials have been removed.
d. Removal of waste materials from work area.
e. Decontamination of equipment (list items).
f. Contractors final inspection/final air test analysis.

B. **Entry/Exit Log:** Maintain within the Decontamination Unit a daily log documenting the dates and time of but not limited to, the following items:

1. Visitations; authorized and unauthorized with the following information
   a. Name
   b. Organization
   c. Entry time
   d. Exit Time
   e. Respiratory protection

2. Personnel, by name, entering and leaving the work area with the following information
   a. Printed Name
   b. Identification Number
   c. Entry Time
   d. Exit Time
   e. Respiratory Protection

C. **Air Monitoring Results:** Post personnel and area air monitoring results in Decontamination Unit within 24 hours of sample collection. Post the respiratory protection requirements for the work in progress.

D. **Records in Decontamination Unit:** Maintain the following documentation in the Decontamination Unit, in a location accessible to workers.

1. Documentation of inspections by OSHA, EPA or local authority
2. Respiratory Protection Program.

E. **Other records:** Maintain other documentation in a location that is accessible to the Owner, Designer, and Project Administrator including:

1. Waste Manifests and shipping records
2. Landfill receipts.
3. Accident reports.

1.15 SPECIAL REPORTS:

A. **General:** Except as otherwise indicated, submit special reports directly to Owner within one day of occurrence requiring special report, with copy to Designer and others affected by occurrence.

B. **Reporting Unusual Events:** When an event of unusual and significant nature occurs at site (examples: failure of pressure differential system, rupture of temporary enclosures), prepare and submit report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. When such events are known or predictable in advance, advise Owner in advance at earliest possible date.

C. **Reporting Accidents:** Prepare and submit reports of significant accidents, at site and anywhere else work is in progress. Record and document data and actions; comply with industry standards. For this purpose, a significant accident is defined to include events where personal injury is sustained, property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury, or where work was stopped for over four hours during a scheduled shift.

D. **Report Discovered Conditions:** When an unusual condition of the building is discovered during the work (e.g. leaks, termites, corrosion) prepare and submit a special report indication condition discovered.

1.16 SUBMITTALS

A. **Before the Start of Work:** Submit the following to the Designer in the same manner as product data. Do not begin work until these submittals are returned with designer’s action stamp indicating that all submittals have been “received-not reviewed”.

1. Plan of Action.

2. Contingency Plans.

3. Project Directory.

4. Notifications: copy of notification sent to other entities at the work site, notification sent to Louisiana Department of Environmental Quality, emergency service agencies, and all other notifications as directed by the Owner or Owner's Representative.

5. Pre-Construction Inspection: Report on inspection carried out as required by this section. Include copies of all photographs, video recordings, etc.

6. Contractor's Construction Schedule.

7. Accreditation: Submit evidence in the form of training course certificates for the General Superintendent, Supervisors, and Forepersons as asbestos abatement supervisors in accordance with AHERA requirements. Submit evidence in the form of training course certificates that each worker is trained as an asbestos abatement worker in accordance with AHERA requirements.

8. Resume: Submit resume of General Superintendent.

B. **Project Close-out:** Submit two (2) copies for information purposes of all documents indicated in the following sections at final closeout of project as a project close-out submittal.

1. Section on Record Keeping.

2. Section on Special Reports.

PART 2 - PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION – 02 80 15

SECTION 02 80 21 - REFERENCE STANDARDS AND DEFINITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, and other Division 01 and 02 Specification Sections apply to this Section.

1.2 DEFINITIONS

A. **General:** Basic contract definitions are included in the Conditions of the Contract.

1. "Indicated": The term "indicated" refers to graphic representations, notes, or schedules on the Drawings, or other paragraphs or Schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the reader locate the reference. Location is not limited.

2. "Directed": Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by the Designer, requested by the Designer, and similar phrases.

3. "Approved": The term "approved," when used in conjunction with the Designer's action on the Contractor's submittals, applications, and requests, is limited to the Designer's duties and responsibilities as stated in the Conditions of the Contract.

4. "Regulations": The term "regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.

5. "Furnish": The term "furnish" means supply and deliver to the Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.

6. "Install": The term "install" describes operations at the Project Site including the actual unloading, unpacking, assembly, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

7. "Provide": The term "provide" means to furnish and install, complete and ready for the intended use.

8. "Installer": An installer is the Contractor or another entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, or similar operations. Installers are required to be experienced in the operations they are engaged to perform.

a. The term "experienced," when used with the term "installer," means having a minimum of 5 previous projects similar in size and scope to this Project, being familiar with the special requirements indicated, and having complied with requirements of authorities having jurisdiction.

b. Trades: Using terms such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to trades persons of the corresponding generic name.

c. Assigning Specialists: Certain Sections of the Specifications require that specific construction activities shall be performed by specialists who are recognized experts in those operations. The specialists must be engaged for those activities, and their assignments are requirements over which the Contractor has no option. However, the ultimate responsibility for fulfilling contract requirements remains with the Contractor.

1) This requirement shall not be interpreted to conflict with enforcing building codes and similar regulations governing the Work. It is also not intended to interfere with local trade-union jurisdictional settlements and similar conventions.

9. "Project Site" is the space available to the Contractor for performing construction activities, either exclusively or in conjunction, with others performing other work as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.

10. "Testing Agencies": A testing agency is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

11. "Designer": This is the entity described as the "Architect" in AIA Document A201 "General Conditions of the Contract for Construction," or is the entity described as "Engineer" in Engineers Joint Contract Document Committee (EJCDC) Document 1910-8 "Standard General Conditions of the Construction Contract." All references to Architect or Engineer in the Contract Documents in all cases refer to the Designer. The Designer will represent the Owner during construction and until final payment is due. The Designer will advise and consult with the Owner. The Owner's instructions to the Contractor will be forwarded through the Designer.

12. "Project Administrator": This is the entity described as the "Project Representative" in AIA Document A201 "General Conditions of the Contract for Construction," or is the entity described as "Engineer" in Engineers Joint Contract Document Committee (EJCDC) Document 1910-8 "Standard General Conditions of the Construction Contract." The Project Administrator is a full time representative of the Owner at the job site with authority to stop the work upon written or verbal order if requirements of the Contract Documents are not met, or if in the sole judgement of the Project Administrator, Designer, or Owner, the interests of the Owner, safety of any person or the Owner's property are jeopardized by the work.

13. “Stop Work Order”: is a written order to cease work activities. The Contractor must maintain work area isolation during the period that a Stop Work Order is in affect.

14. "General Superintendent": This is the Contractor's Representative at the work site. This person must be a Competent Person as defined by OSHA in 29 CFR 1926.

15. "Working Day": Monday through Friday and includes holidays that fall on any of the days Monday through Friday as indicated in the notification requirements.

1.3 SPECIFICATION FORMAT AND CONTENT EXPLANATION

A. **Specification Format:** These Specifications are organized into Divisions and Sections based on CSI 2004 MasterFormat's numbering system.

B. **Specification Content:** This Specification uses certain conventions regarding the style of language and

the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:

1. **Abbreviated Language:** Language used in Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be interpolated as the sense requires. Singular words will be interpreted as plural and plural words interpreted as singular where applicable as the context of the Contract Documents indicates.

2. **Streamlined Language:** The Specifications generally use the imperative mood and streamlined language. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the Text, subjective language is used for clarity to describe responsibilities that must be fulfilled indirectly by the Contractor or by others when so noted.

1.4 INDUSTRY STANDARDS

A. **Applicability of Standards:** Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

B. **Publication Dates:** Comply with the standards in effect as of the date of the Contract Documents.

C. **Conflicting Requirements:** Where compliance with 2 or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer to the Designer before proceeding for a decision on requirements that are different but apparently equal, and where it is uncertain which requirement is the most stringent.

1. **Minimum Quantity or Quality Levels:** The quantity or quality level shown or specified shall be the minimum acceptable. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements. Refer uncertainties to the Designer for a decision before proceeding.

D. **Copies of Standards:** Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source.

E. **Abbreviations and Names:** Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards-generating organization, authorities having jurisdiction, or other entity applicable to the context of the text provision. Refer to Gale Research Co.'s "Encyclopedia of Associations," available in most libraries.

1. ACI American Concrete Institute
   P.O. Box 19150
   Detroit, MI 48219 (313) 532-2600

2. ACIL American Council of Independent Laboratories

1629 K St., NW
Washington, DC 20006 (202) 887-5872

3. ACPA American Concrete Pipe Assoc.
8300 Boone Blvd., Suite 400
Vienna, VA 22182 (703) 821-1990

4. ACGIH American Conference of Governmental Industrial Hygienists
1330 Kemper Meadow Dr.
Cincinnati, OH 45240 (513) 742-2020

5. AIA The American Institute of Architects
1735 New York Ave., NW
Washington, DC 20006 (202) 626-7300

6. AIHA American Industrial Hygiene Assoc.
2700 Prosperity Ave., Suite 250
Fairfax, VA 22031 (703) 849-8888

7. ANSI American National Standards Institute
11 West 42nd St., 13th Floor
New York, NY 10036 (212) 642-4900

8. ASHRAE American Society of Heating,
Refrigerating and Air-Conditioning Engineers
1791 Tullie Circle, NE
Atlanta, GA 30329 (404) 636-8400

9. ASME American Society of Mechanical Engineers
345 East 47th St.
New York, NY 10017 (212) 705-7722

10. ASPE American Society of Plumbing Engineers
3617 Thousand Oaks Blvd., Suite 210
Westlake, CA 91362 (805) 495-7120

11. ASTM American Society for Testing and Materials
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959 (610) 832-9585

12. CGA Compressed Gas Assoc.
1725 Jefferson Davis Highway, Suite 1004
Arlington, VA 22202-4100 (703) 412-0900

13. FM Factory Mutual Systems
1151 Boston-Providence Turnpike
P.O. Box 9102
Norwood, MA 02062 (617) 762-4300

14. GA Gypsum Association
810 First St., NE, Suite 510
Washington, DC 20002 (202) 289-5440

15. IEEE Institute of Electrical and Electronic Engineers
345 E. 47th St.
New York, NY 10017 (212) 705-7900

16. IETA International Electrical Testing Assoc.
P.O. Box 687
Morrison, CO 80465 (303) 697-8441

17. IRI Industrial Risk Insurers
P.O. Box 5010
85 Woodland St.
Hartford, CT 06102-5010 (203) 520-7300

18. ISA Instrument Society of America
P.O. Box 12277
67 Alexander Dr.
Research Triangle Park, NC 27709 (919) 549-8411

19. ISO International Standards Organization

20. NEC National Electrical Code (from NFPA)

21. NECA National Electrical Contractors Assoc.
3 Bethesda Metro Center, Suite 1100
Bethesda, MD 20814 (301) 657-3110

22. NEMA National Electrical Manufacturers Assoc.
2101 L St., NW, Suite 300
Washington, DC 20037 (202) 457-8400

23. NFPA National Fire Protection Assoc.
One Batterymarch Park
P.O. Box 9101
Quincy, MA 02269-9101 (617) 770-3000 (800) 344-3555

24. NRCA National Roofing Contractors Assoc.
10255 W. Higgins Rd., Suite 600
Rosemont, IL 60018-5607 (708) 299-9070

25. RFCI Resilient Floor Covering Institute
966 Hungerford Dr., Suite 12-B
Rockville, MD 20805 (301) 340-8580

26. UL Underwriters Laboratories
333 Pfingsten Rd.
Northbrook, IL 60062 (708) 272-8800

27. White Lung Association
PO Box 1483
Baltimore, MD 21203

E. **Federal Government Agencies:** Names and titles of federal government standard- or Specification-producing agencies are often abbreviated. The following acronyms or abbreviations referenced in the Contract Documents indicate names of standard- or Specification-producing agencies of the federal government. Names and addresses are subject to change and are believed, but are not assured, to be accurate and up-to-date as of the date of the Contract Documents.

1. CE Corps of Engineers
(U.S. Department of the Army)
Chief of Engineers - Referral
Washington, DC 20314 (202) 272-0660

2. CFR Code of Federal Regulations
(Available from the Government Printing Office)
N. Capitol St. between G and H St., NW
Washington, DC 20402 (202) 783-3238
(Material is usually first published in the "Federal Register")

3. CPSC Consumer Product Safety Commission
5401 Westbard Ave.
Bethesda, MD 20207 (800) 638-2772

4. CS Commercial Standard
(U.S. Department of Commerce)
Government Printing Office
Washington, DC 20402 (202) 783-3238

5. DOC Department of Commerce
14th St. and Constitution Ave., NW
Washington, DC 20230 (202) 482-2000

6. DOT Department of Transportation
400 Seventh St., SW
Washington, DC 20590 (202) 366-4000

7. EPA Environmental Protection Agency
401 M St., SW
Washington, DC 20460 (202) 260-2090

8. FS Federal Specification (from GSA)
Specifications Unit (WFSIS)
7th and D St., SW
Washington, DC 20407 (202) 708-9205

9. GSA General Services Administration
F St. and 18th St., NW
Washington, DC 20405 (202) 708-5082

10. MIL Military Standardization Documents
(U.S. Department of Defense)
Naval Publications and Forms Center
5801 Tabor Ave.
Philadelphia, PA 19120

11. NIST National Institute of Standards and Technology
(U.S. Department of Commerce)
Gaithersburg, MD 20899 (301) 975-2000

12. OSHA Occupational Safety and Health Administration
(U.S. Department of Labor)
200 Constitution Ave., NW
Washington, DC 20210 (202) 219-6091

13. PS Product Standard of NBS
(U.S. Department of Commerce)
Government Printing Office
Washington, DC 20402 (202) 783-3238

14. USPS U.S. Postal Service
475 L'Enfant Plaza, SW
Washington, DC 20260-0010 (202) 268-2000

15. Louisiana Department of Environmental Quality
Office of Environmental Compliance
P.O. Box 82215
Baton Rouge, La. 70884-2215 (225) 765-0634

F. **Trade Union Jurisdictions:** The Contractor shall maintain, and require subcontractors to maintain, complete current information on jurisdictional matters, regulations and pending actions, as applicable to construction activities. The manner in which Contract Documents have been organized and subdivided is not intended to be indicative of trade union or jurisdictional agreements.

1. Discuss new developments at project meetings at the earliest feasible dates. Record relevant information and actions agreed upon.

2. Assign and subcontract construction activities, and employ tradesmen and laborers in a manner that will not unduly risk jurisdictional disputes that could result in conflicts, delays, claims and losses.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 02 80 21

SECTION 02 80 22 - CODES, REGULATIONS AND STANDARDS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of Contract, and other Division 01 and 02 Specification Sections apply to this section.

1.2 SUMMARY

A. This section sets forth governmental regulations which are included and incorporated herein by reference and made a part of the specification. This section also sets forth those notices and permits which are known to the Owner and which either must be applied for and received, or which must be given to governmental agencies before start of work.

1. Requirements include adherence to work practices and procedures set forth in applicable codes, regulations and standards.

2. Requirements include obtaining permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with codes, regulations, and standards.

1.3 CODES, REGULATIONS AND STANDARDS

A. **General Applicability of Codes, Regulations and Standards:** Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, all applicable codes and regulations have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the Contract Documents, or as if published copies are bound herewith.

B. **Contractor Responsibility:** The Contractor shall assume full responsibility and liability for the compliance with all applicable Federal, State, and local regulations pertaining to work practices, hauling, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable Federal, State, and local regulations. The Contractor shall hold the Owner and Designer harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of the contractor, the contractor's employees, or subcontractors.

C. **Federal Requirements:** which govern renovation work or hauling and disposal of waste materials include but are not limited to the following:

1. **OSHA:** U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA), including but not limited to:

a. Respiratory Protection
Title 29, Part 1910, Section 134 of the Code of Federal Regulations
Title 29, Part 1926, Section 103 of the Code of Federal Regulations

b. Personal Protective Equipment for General Industry
Title 29, Part 1910, Section 132 of the Code of Federal Regulations
Title 29, Part 1926, Sections 95 - 107 of the Code of Federal Regulations

c. Access to Employee Exposure and Medical Records
Title 29, Part 1926, Section 33 of the Code of Federal Regulations

d. Hazard Communication
Title 29, Part 1926, Section 59 of the Code of Federal Regulations

e. Specifications for Accident Prevention Signs and Tags
Title 29, Part 1910, Section 145 of the Code of Federal Regulations

f. Permit Required Confined Space
Title 29, Part 1910, Section 146 of the Code of Federal Regulations

g. Construction Industry
Title 29, Part 1910, Section 1001 of the Code of Federal Regulations
Title 29, Part 1926, Section 1101 of the Code of Federal Regulations

h. Construction Industry - General Duty Standards
Title 29, Part 1926, Sections 20 through 35 of the Code of Federal Regulations

2. DOT: U. S. Department of Transportation, including but not limited to:

a. Hazardous Substances
Title 49, Part 171 and 172 of the Code of Federal Regulations

b. Hazardous Material Regulations
General Awareness and Training Requirements for Handlers, Loaders and Drivers
Title 49, Parts 171-180 of the Code of Federal Regulations

c. Hazardous Material Regulations
Editorial and Technical Revisions
Title 49, Parts 171-180 of the Code of Federal Regulations

3. EPA: U. S. Environmental Protection Agency (EPA), including but not limited to:

a. National Emission Standard for Hazardous Air Pollutants (NESHAP)
National Emission Standard for Asbestos
Title 40, Part 61, Sub-part A, and Sub-part M (Revised Sub-part B) of the Code of Federal Regulations

D. State Requirements: which govern work or hauling and disposal of asbestos waste materials include but are not limited to the following: LAC 33:III:51 and LAC 33:III:51.

Abide by all local requirements which govern renovation work or hauling and disposal of waste materials.

1.4 PERMITS:

Contractor is responsible for obtaining any demolition, building, renovation or other permits, and for paying application fees, if any, where required by State or Local jurisdictions.

1.5 LICENSES:

A. Licenses: Maintain current licenses as required by applicable state or local jurisdictions for the removal, transporting, disposal or other regulated activity relative to the work of this contract.

1.4 POSTING AND FILING OF REGULATIONS

A. **Posting and Filing of Regulations:** Post all notices required by applicable federal, state and local regulations. Maintain two (2) copies of applicable federal, state and local regulations and standard. Maintain one copy of each at job site. Keep on file in Contractor's office one copy of each.

1.5 SUBMITTALS:

A. **Before Start of Work:** Submit the following to the Designer for review. No work shall begin until these submittals are returned with Designer's action stamp indicating that the submittal is returned for unrestricted use or final-but-restricted use.

1. Permits, Licenses, and Certificates: For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work including:

a. State and Local Regulations: Submit copies of codes and regulations applicable to the work.

2. Notices: Submit notices required by federal, state and local regulations together with proof of timely transmittal to agency requiring the notice.

3. Permits: Submit copies of current valid permits required by state and local regulations.

4. Licenses: Submit copies of all State and local licenses and permits necessary to carry out the work of this contract.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION – 02 80 22

SECTION 02 80 30 - SUBMITTALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 2 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including the following:

1. Submittal schedule.
2. Daily construction reports.
3. Shop Drawings.
4. Product Data.
5. Samples.
6. Quality Assurance Submittals

B. Administrative Submittals: Refer to other Division 2 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:

1. Permits
2. List of Subcontractors

C. RELATED SECTIONS

1. The following Sections contain requirements that relate to this Section:

a. Section "Coordination" specifies requirements governing submittal and distribution of meeting and conference minutes.

b. Section "Project Closeout" specifies requirements for submittal of Project Record Documents and warranties at project closeout.

1.3 SUBMITTAL PROCEDURES

A. **Coordination:** Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.

2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
a. The Designer reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.

B. **Processing:** To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.

No extension of Contract Time will be authorized because of failure to transmit submittals to the Designer sufficiently in advance of the Work to permit processing.

C. **Submittal Preparation:** Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

1. Provide a space approximately 4 by 5 inches (100 by 125 mm) on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.

2. Include the following information on the label for processing and recording action taken.

a. Project name.
b. Date.
c. Name and address of the Designer.
d. Name and address of the Contractor.
e. Name and address of the supplier.
f. Name of the manufacturer.
g. Number and title of appropriate Specification Section.
h. Drawing number and detail references, as appropriate.

3. Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

4. Contractor shall transmit all submittals in electronic format (email to Designer or via CD-ROM). Contractor shall use latest version of Microsoft Word, Microsoft Excel, or Adobe PDF file formats for submittal preparation.

D. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Designer using a transmittal form. The Designer will not accept submittals received from sources other than the Contractor.

1. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.

E. **Transmittal Form:** Use AIA Document G810.

1.4 SUBMITTAL SCHEDULE

A. **Submittal Schedule:** After development and acceptance of the Contractor's Construction Schedule, prepare a complete schedule of submittals.

1. Coordinate Submittal Schedule with the list of products as well as the Contractor's Construction Schedule.

2. Prepare the schedule in chronological order. Provide the following information:

a. Scheduled date for the first submittal.
b. Related Section number.
c. Submittal category (Shop Drawings, Product Data, or Samples).
d. Description of the part of the Work covered.
e. Scheduled date for resubmittal.

f. Scheduled date for the Designer's final release or approval.

B. Distribution: Following response to the initial submittal, print and distribute copies to the Designer, Owner, subcontractors, and other parties required to comply with submittal dates indicated. Post copies at the jobsite.

1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

C. Schedule Updating: Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

1.5 SHOP DRAWINGS

A. Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.

B. Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates and similar Drawings. Include the following information:

1. Dimensions.
2. Identification of products and materials included by sheet and detail number.
3. Compliance with specified standards.
4. Notation of coordination requirements.
5. Notation of dimensions established by field measurement.

C. Drawing Format and Sheet Size: Submit Drawings in AutoCad 2009 and Adobe Acrobat compatible format to plot on sheets at least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 36 by 48 inches (890 by 1220 mm).

D. Initial Submittal: Submit one copy for the Designer's review.

E. Final Submittal: Submit one copy with closeout documentation.

1. One of the prints returned shall be marked up and maintained as a "Record Document."
2. Do not use Shop Drawings without an appropriate final stamp indicating action taken.

1.6 PRODUCT DATA

A. Collect Product Data into a single submittal. Product Data includes information such as manufacturer's installation instructions, catalog cuts, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."

1. Mark each copy to show applicable choices and options. Where Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:

a. Manufacturer's printed recommendations.

b. Compliance with recognized trade association standards.
c. Compliance with recognized testing agency standards.
d. Application of testing agency labels and seals.
e. Notation of dimensions verified by field measurement.
f. Notation of coordination requirements.

2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.

B. Preliminary Submittal: Submit a preliminary single-copy of Product Data where selection of options is required.

C. Submittals: Submit 1 electronic copy of each required submittal. The Designer will will return the submittal with action taken and corrections or modifications required.

1. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

D. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.

1. Do not proceed with installation until a final submittal is in the installer's possession.

2. Do not permit use of unmarked copies of Product Data in connection with construction.

1.7 NOT USED

1.8 QUALITY ASSURANCE SUBMITTALS

A. Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other Sections of the Specifications.

B. Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.

1. Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.

1.9 MISCELLANEOUS SUBMITTALS:

A. Material Safety Data Sheets: Process material safety data sheets as “product data.” These are submitted for information purposes only, they will be returned with the action stamp, “Received - Not Reviewed.”

B. Inspection and Test Reports: Classify each inspection and test report as being either "shop drawings" or "product data" depending on whether the report is specially prepared for the project, or a standard publication of workmanship control testing at the point of production. Process inspection and test reports accordingly.

C. Worker Identification and Accreditation: Provide legally recognized identification of contractor personnel

(such as valid driver's license from any of the fifty states of the United States of America or territories, or valid photographic ID from any of the fifty states of the United States of America or territories) as well as required drug screening and employee background information.

D. **Project Photographs:** Furnish project photographs at monthly intervals. Comply with Designer's direction concerning desired vantage points for shots.

E. **Records of Actual Work:** Furnish copies of records of actual work, one of which will be returned for inclusion in the record documents as specified in section "Project Closeout".

F. **Standards:** Where submittal of a copy of standards is indicated, and except where copies of standards are specified as an integral part of a "Product Data" submittal, submit a single copy of standards for the Designer's use. Where workmanship, whether at the project site or elsewhere is governed by a standard, furnish additional copies of the standard to fabricators, installers and others involved in the performance of the work.

G. **Closeout Submittals:** Refer to section "Project Closeout" and to individual sections of these specifications for specific submittal requirements of project closeout information.

H. **Record Documents:** Furnish set of original documents as maintained on the project site. Along with original marked-up record drawings provide electronic copies of marked-up drawings

.

1.10 DESIGNER'S ACTION

A. Except for submittals for the record or information, where action and return is required, the Designer will review each submittal, mark to indicate action taken, and return promptly.

1. Compliance with specified characteristics is the Contractor's responsibility.

B. **Action Label:** The Designer will label each submittal with a uniform, action label. The Designer will mark the label appropriately to indicate the action taken, as follows:

1. Final Unrestricted Release: When the Designer marks a submittal "Approved," the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.

2. Final-But-Restricted Release: When the Designer marks a submittal "Approved as Noted," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.

3. Returned for Resubmittal: When the Designer marks a submittal "Not Approved, Revise and Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.

a. Do not use, or allow others to use, submittals marked "Not Approved, Revise and Resubmit" at the Project Site or elsewhere where Work is in progress.

4. Received - Not Reviewed: When the Designer marks a submittal "Received - Not Reviewed" this acknowledges that the submittal has been received. This action applies to materials that are to be submitted for information purposes only, and where no review or action by the Designer is required.

5. Other Action: Where a submittal is for information or record purposes or special processing or other activity, the Designer will return the submittal marked "Action Not Required."

C. Unsolicited Submittals: The Designer will return unsolicited submittals to the sender without action.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 02 80 30

SECTION 02 80 40 - TEMPORARY FACILITIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. **Drawings and general provisions** of the Contract, including General and Supplementary Conditions and other Division 1 & 2 Specification Sections, apply to this Section.

1.2 SUMMARY

A. **This Section includes requirements** for construction facilities and temporary controls, including temporary utilities, support facilities, and security and protection where required.

B. **Temporary utilities include**, but are not limited to, the following:

1. Water service and distribution.
2. Temporary electric power and light.
3. Temporary heat.
4. Ventilation.
5. Telephone service.
5. Sanitary facilities, including drinking water.
6. Storm and sanitary sewer.

C. **Support facilities include**, but are not limited to, the following:

1. Field offices, laboratories, and storage sheds.
2. Temporary enclosures.
3. Hoists and temporary elevator use.

D. **Security and protection facilities include**, but are not limited to, the following:

1. Temporary fire protection.
2. Barricades, warning signs, and lights.

1.3 DESCRIPTION OF REQUIREMENTS:

A. **General:** Provide temporary connection to existing building utilities or provide temporary facilities as required herein or as necessary to carry out the work.

1.4 SUBMITTALS

A. **Before the Start of Work:** Submit the following to the Designer for review. Begin no work until these submittals are returned with Designer's action stamp indicating that the submittal is returned for unrestricted use or final-but-restricted use. Only submit data on items listed below that are required for use on this project.

1. Hot water heater: Submit manufacturers name, model number, size in gallons (liters), heating capacity, power requirements.
2. Decontamination Unit Sub-panel: Submit product data.
3. Ground Fault Circuit Interrupters (GFCI): Submit product data.
4. Lamps and Light Fixtures: Submit product data.

5. Temporary Heating Units: Provide product data.
6. Temporary Cooling Units: Provide product data and installation instructions.
7. Self Contained Toilet Units: Provide product data and name of sub-contractor to be used for servicing self contained toilets. Submit method to use for servicing.
8. Fire Extinguishers: Provide product data. Submit schedule indicating location at job site and compliance with NFPA 10 and NFPA 241.
9. Temporary Utilities: Submit reports of tests, inspections, meter readings, and similar procedures performed on temporary utilities.
10. Implementation and Termination Schedule: Within 15 days of the date established for commencement of the Work, submit a schedule indicating implementation and termination of each temporary utility.

1.5 QUALITY ASSURANCE

A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:

1. Building code requirements.
2. Health and safety regulations.
3. Utility company regulations.
4. Police, fire department, and rescue squad rules.
5. Environmental protection regulations.

B. Standards: Comply with NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations," ANSI A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA Electrical Design Library "Temporary Electrical Facilities."

C. Electrical Service: Comply with NEMA, NECA, and UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70 "National Electric Code."

D. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.6 PROJECT CONDITIONS

A. Temporary Utilities: Prepare a schedule indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to the Owner, change over from use of temporary service to use of permanent service.

B. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Relocate temporary services and facilities as the Work progresses. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

A. General: Provide new materials and equipment. If acceptable to the Designer, the Contractor may use undamaged, previously used materials and equipment in serviceable condition. Provide materials and equipment suitable for use intended.

B. Lumber and Plywood:

1. For job-built temporary offices, shops, and sheds within the construction area, provide UL-labeled, fire-treated lumber and plywood for framing, sheathing, and siding.
2. For fences and vision barriers, provide minimum 3/8-inch- (9.5mm) thick exterior plywood.

C. Scaffolding: Provide scaffolding, ladders and/or staging, etc. as necessary to accomplish the work of this contract. Scaffolding may be of suspension type or standing type such as metal tube and coupler, tubular welded frame, pole or outrigger type or cantilever type. The type, erection and use of scaffolding shall comply with applicable OSHA provisions.

1. Equip rungs of metal ladders, etc. with an abrasive non-slip surface.
2. Provide a nonskid surface on scaffold surfaces subject to foot traffic.

2.2 WATER SERVICE

A. Water: Provide potable water approved by local health authorities.

B. Temporary Water Service Connection: Connections to the Owner's water system shall include backflow protection. Valves shall be temperature and pressure rated for operation of the temperatures and pressures encountered. After completion of use, connections and fittings shall be removed without damage or alteration to existing water piping and equipment. Leaking or dripping valves shall be piped to the nearest drain or located over an existing sink or grade where water will not damage existing finishes or equipment. Provide separate hoses and/or/ pumps for shower water and amended water, without the possibility of cross connection.

C. Water Hoses: Provide heavy-duty, abrasion-resistant, flexible hoses in diameters and lengths necessary to adequately serve temporary facilities, and with a pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable shutoff nozzles at hose discharge.

1. Provide water into each work area and to each Decontamination Unit. Provide fittings as required to allow for connection to existing wall hydrants or spouts, as well as temporary water heating equipment, branch piping, showers, shut-off nozzles and equipment.

D. Hot Water Heater: Provide UL rated minimum 40 gallon (150 liters) electric hot water heater to supply hot water for the Decontamination Unit shower. Activate from 30 amp circuit breaker located within the Decontamination Unit subpanel. Provide with relief valve compatible with water heater operation; pipe relief valve down to drip pan on floor with type L copper. Drip pans shall consist of a 12" X 12" X 6" (30 cm. X 30 cm. X 15 cm) deep pan, made of 19 gauge galvanized steel, with handles. A 3-quart (3 liter) kitchen saucepan may be substituted for this purpose. Drip pan shall be securely fastened to the hot water heater with bailing wire or similar material. Wiring of the hot water heater shall be in compliance with NEMA, NECA, and UL standards.

E. Hot Water: may be secured from the building hot water system, provided backflow protection is installed at point of connection as described in this section under Temporary Water Service connection, and if authorized in writing by the Designer.

2.3 ELECTRICAL SERVICE:

A. General: Comply with applicable NEMA, NECA and UL standards and governing regulations for materials and layout of temporary electric service.

B. **Temporary Power:** Provide service to Decontamination Unit subpanel with minimum 60 amp, 2 pole circuit breaker or fused disconnect connected to the building's main distribution panel. Subpanel and disconnect shall be sized and equipped to accommodate electrical equipment required for completion of the work.

1. Connection to the building's main distribution panel is to be made by a licensed electrician

C. **Voltage Differences:** Provide identification warning signs at power outlets which are other than 110-120 volt power. Provide polarized outlets for plug-in type outlets, to prevent insertion of 110-120 volt plugs into higher voltage outlets. Dry type transformers shall be provided where required to provide voltages necessary for work operations.

D. **Electrical Outlets:** Provide properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-Volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters (GFCI), reset button, and pilot light for connection of power tools and equipment.

1. Locate GFCI's exterior to Work Area so that circuits are protected prior to entry to Work Area. Provide circuit breaker type ground fault circuit interrupters (GFCI) equipped with test button and reset switch for circuits to be used for any purpose in work area, decontamination units, exterior, or as otherwise required by national electrical code, OSHA or other authority. Locate in panel exterior to Work Area.

E. **Electrical Power Cords:** Provide grounded extension cords. Use hard-service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.

F. **Lamps and Light Fixtures:** Provide general service incandescent lamps or fluorescent lamps of wattage indicated or required for adequate illumination as required by the work or this section. Protect lamps with guard cages or tempered glass enclosures, where fixtures are exposed to breakage by construction operations. Provide vapor tight fixtures in work area and decontamination units. Provide exterior fixtures where fixtures are exposed to the weather or moisture.

2.4 TEMPORARY HEAT:

A. **Heating Units:** Provide temporary heating units that have been tested and labeled by UL, FM or another recognized trade association related to the fuel being consumed. Use steam or hot water radiant heat where available, and where not available use electric resistant fin radiation supplied from a branch circuit with ground fault circuit interrupter.

2.5 TEMPORARY COOLING:

A. **Cooling Units:** Provide temporary cooling units consisting of a fan coil unit inside the work area with a compressor and heat rejection coil outside.

2.6 TEMPORARY STRUCTURES

A. **Temporary Offices:** Provide prefabricated or mobile units or similar job-built construction with lockable entrances, operable windows, and serviceable finishes. Provide heated and air-conditioned units on foundations adequate for normal loading.

B. **Temporary Toilet Units:** Provide self-contained, single-occupant toilet units of the chemical or aerated recirculation type. Provide units properly vented and fully enclosed with a glass-fiber-reinforced polyester

shell or similar nonabsorbent material.

2.7 FIRST AID

A. **First Aid Supplies:** Comply with governing regulations and recognized recommendations within the construction industry.

2.8 FIRE EXTINGUISHERS:

A. **Fire Extinguishers:** Provide hand-carried, portable, UL-rated, Class A fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated, Class ABC, dry-chemical extinguishers or a combination of extinguishers of NFPA-recommended classes for the exposures.

B. **Comply with NFPA 10 and NFPA 241** for classification, extinguishing agent, and size required by location and class of fire exposure.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. **General:** Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.

B. **Provide** each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

C. **Require** that personnel accomplishing this work be licensed as required by local authority for the work performed.

D. **Relocate**, modify and extend services and facilities as required during the course of work so as to accommodate the entire work of the project.

3.2 SCAFFOLDING:

A. **During the erection and/or moving** of scaffolding, care must be exercised so that the polyethylene floor covering is not damaged.

B. **Clean** as necessary debris from non-slip surfaces.

C. **At the completion of abatement work** clean construction aids within the work area, wrap in one layer of 6 mil (0.15 mm) polyethylene sheet and seal before removal from the Work Area.

3.3 TEMPORARY UTILITY INSTALLATION

A. **General:** Engage the appropriate local utility company to install temporary service or connect to existing service. Where company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with company recommendations.

1. Arrange with company and existing users for a time when service can be interrupted, if necessary, to

make connections for temporary services.

2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.

3. Use Charges: Cost or use charges for temporary facilities are not chargeable to the Owner or Designer. Neither the Owner nor Designer will accept cost or use charges as a basis of claims for Change Orders.

B. Water Service:

1. Water connection (without charge) to Owner's existing potable water system is limited to one 3/4" (19 mm) pipe-size connection, and a maximum flow of 10 g.p.m. (38 liters / minute) each to hot and cold water supply. Install using vacuum breakers or other backflow preventer as required by local authority. Hot water shall be supplied at a minimum temperature of 100 degrees F (35 degrees C). Supply hot and cold water to the Decontamination Unit in accordance with Section 01563.

a. Maintain hose connections and outlet valves in leakproof condition. Where finish work below an outlet might be damaged by spillage or leakage, provide a drip pan of suitable size to minimize the possibility of water damage. Drain water promptly from pans as it accumulates.

2. Sterilization: Sterilize temporary water piping prior to use.

C. Electrical Service:

1. Lock out: Lock out all existing power to or through the work area as described below. Unless specifically noted otherwise existing power and lighting circuits to the Work Area are not to be used. All power and lighting to the Work Area and Decontamination facilities are to be provided from temporary electrical panel described below.

a. Comply with requirements to OSHA 29 CFR 1910.147 the control of hazardous energy lock out/tag out.

b. Lock out power to Work Area by switching off breakers serving power or lighting circuits in work area. Tagout breakers with notation "DANGER circuit being worked on". Lock panel and have all keys under control of authorized person who has locked pane.

c. Lock out power to circuits running through Work Area wherever possible by switching off and locking all breakers serving these circuits. Tag out breakers with notation "DANGER circuit being worked on". Sign and date
danger tag. Lock panel and supply keys to authorized person who has applied locks. If circuits cannot be shut down for any reason, label at intervals of 4-feet" (1.25 meter) on center with signs reading, "DANGER live electric circuit. Electrocution hazard." All asbestos abatement work in the vicinity of the live circuit is to be performed dry. All necessary notifications and procedures for dry removal are to be followed.

d. Lock out power to electrical equipment located in the work area, and to any fans or other equipment that is going to be worked on.

2. Temporary Electrical Panel: Provide temporary electrical panel sized and equipped to accommodate electrical equipment and lighting required by the work. Connect temporary panel to existing building electrical system. Protect with circuit breaker or fused disconnect. Locate temporary panel as directed by Owner or Designer. Panel is to be installed by a licenses electrician.

3. Power Distribution System: Install wiring overhead and rise vertically where least exposed to damage. Where permitted, wiring circuits not exceeding 125 Volts, ac 20 Ampere rating, and lighting circuits may be nonmetallic sheathed cable where overhead and exposed for surveillance.

4. Circuit Protection: Protect each circuit with a ground fault circuit interrupter (GFCI) of proper size

located in the temporary panel. Do not use outlet type GFCI devices.

5. Temporary Wiring: in the Work Area shall be type UF non-metallic sheathed cable located overhead and exposed for surveillance. Do not wire temporary lighting with plain, exposed (insulated) electrical conductors. Provide liquid tight enclosures or boxes for wiring devices.

6. Number of Branch Circuits: Provide sufficient branch circuits as required by the work. Branch circuits are to originate at temporary electrical panel. At minimum provide the following:

a. One Circuit for each HEPA filtered fan unit
b. For power tools and task lighting, provide one temporary 4-gang outlet in the following locations. Provide a separate 110-120 Volt, 20 Amp circuit for each 4-gang outlet (4 outlets per circuit).
c. One outlet in the work area for each 2500 square feet (225 square meters) of work area
d. One outlet at each decontamination unit, located in equipment room

7. 110-120 volt 20 amp branch circuits with 4-gang outlet for Owner's exclusive use while conducting visual inspection and air sampling during the work as follows:

a. One in each work area
b. One at clean side of each Decontamination Unit.
c. One at each exhaust location for HEPA filtered fan units

8. 110-120 volt 20 amp branch circuits with 4-gang outlet for Owner's exclusive use for conducting visual inspection and final air sampling as set forth in Section 01711 Project Decontamination as follows:

a. Five inside work area
b. Two outside work area in location designated by Designer

D. Temporary Lighting:

1. Lock out: Lock out existing power to lighting circuits in Work Area as described in section “Temporary Enclosures”. Unless specifically noted otherwise existing lighting circuits to the Work Area are not to be used. All lighting to the Work Area and Decontamination facilities is to be provided from temporary electrical panel described above.

2. Provide the following or equivalent where natural lighting or existing building lighting does not meet the required light level:

a. One 200-watt incandescent lamp per 1000 square feet (92.9 square meters) of floor area, uniformly distributed, for general construction lighting, or equivalent illumination of a similar nature. In corridors and similar traffic areas provide one 100-watt incandescent lamp every 50 feet (15.2 meters). In stair ways and at ladder runs, provide one lamp minimum per story, located to illuminate each landing and flight. Provide sufficient temporary lighting to ensure proper workmanship everywhere; by combined use of daylight, general lighting, and portable plug-in task lighting.
b. Provide lighting in areas where work is being preformed as required to supply a 100 foot candle (1,076 lumens/sq meter) minimum light level.
c. Provide lighting in any area being subjected to a visual inspection as required to supply a 100 foot candle (1,076 lumens/sq meter) minimum light level.
d. Provide lighting in the Decontamination Unit as required to supply a 50 foot candle (538 lumens/sq meter) minimum light level.

3. Number of Lighting Circuits: Provide sufficient lighting circuits as required by the work. Lighting

circuits are to originate at temporary electrical panel.

4. Circuit Protection: Protect each circuit with a ground fault circuit interrupter (GFCI) of proper size located in the temporary panel.

E. Temporary Heat:

1. **General:** Provide temporary heat where indicated or needed for performance of the Work.

2. Heating Facilities: Except where the Owner authorizes use of the permanent system, provide vented, self-contained, LP-gas or fuel-oil heaters with individual space thermostatic control.

a. Use of gasoline-burning space heaters, open flame, or salamander heating units is prohibited.

3. Maintain a minimum temperature of 70 degrees F (21 degrees C). Where finished work has been installed.

4. Maintain a minimum temperature of 75 degrees F (24 degrees C).in the shower of the decontamination unit.

5. Maintain a minimum temperature of 65 degrees F (18 degrees C) in the Work Area at all times that work is going on. At all other times and at completion of removal work, but before start of reconstruction work, maintain a minimum temperature of 50 degrees F (10 degrees C).

6. Maintain a minimum temperature of 50 degrees F (10 degrees C) in the Work Area at all times during and after removal work.

F. Temporary Cooling:

1. Required Cooling: Provide units sufficient to supply 20,000 BTU/hr (5,862 w) of cooling per 8,000 cubic feet (225 cubic meters) of work area.

G. Temporary Utilities

1. Temporary Telephones: Provide temporary telephone service throughout the construction period for personnel engaged in construction activities. Install telephone on a separate line for each temporary office and first-aid station. Provide wireless high speed internet connection for Owner's representative, air monitoring and air sample analysis personnel, and Designer's use.

2. Separate Telephone Lines: Provide additional telephone lines for the following:

a. Where an office has more than 2 occupants, install a telephone for each additional occupant or pair of occupants.
b. Provide a dedicated telephone line for a fax machine in the field office.
c. Provide a separate line for the Owner's use.
d. At each telephone, post a list of emergency telephone numbers.

H. Sanitary Facilities:

1. Sanitary facilities include temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for the type, number, location, operation, and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.

a. Provide toilet tissue, paper towels, paper cups, and similar disposable materials for each facility. Provide covered waste containers for used material.

2. Toilets: Use of the Owner's existing toilet facilities will not be permitted.

3. Toilets: Install self-contained toilet units. Shield toilets to ensure privacy. Use of pit-type privies will not be permitted.

4. Provide separate facilities for male and female personnel.

5. Wash Facilities: Install wash facilities supplied with potable water at convenient locations for personnel involved in handling materials that require wash-up for a healthy and sanitary condition. Dispose of drainage properly. Supply cleaning compounds appropriate for each condition.

6. Drinking-Water Facilities: Provide containerized, tap-dispenser, bottled-water drinking-water units, including paper supply.

a. Where power is accessible, provide electric water coolers to maintain dispensed water temperature at 45 to 55 deg F (7.2 to 12.8 deg C).

7. Sewers and Drainage: If sewers are available, provide temporary connections to remove effluent that can be discharged lawfully. If sewers are not available or
cannot be used, provide drainage ditches, dry wells, stabilization ponds, and similar facilities. If neither sewers nor drainage facilities can be lawfully used for discharge of effluent, provide containers to remove and dispose of effluent off-site in a lawful manner.

a. Filter out excessive amounts of soil, construction debris, chemicals, oils, and similar contaminants that might clog sewers or pollute waterways before discharge.
b. Maintain temporary sewers and drainage facilities in a clean, sanitary condition. Following heavy use, restore normal conditions promptly.

3.4 SUPPORT FACILITIES INSTALLATION

A. **Locate field offices**, field laboratories, storage sheds, and other temporary construction and support facilities for easy access. Coordinate location with Owner.

1. Maintain support facilities until Substantial Completion. Remove prior to Final Completion.

B. **Provide incombustible construction** for offices, shops, and sheds located within the construction area or within 30 feet (9 m) of building lines. Comply with requirements of NFPA 241.

C. **Field Offices and Laboratory:** Provide insulated, weather tight temporary offices of sufficient size to accommodate required personnel at the Project Site. Keep the office clean and orderly for use for small progress meetings. Furnish and equip offices as follows:

1. Furnish with a desk and chairs, a 4-drawer file cabinet, plan table, plan rack, and a 6-shelf bookcase. Provide adequate work and storage space for personnel conducting Owner's Air Monitoring, including work area for air sample preparation and analysis.

2. Equip with a water cooler and private toilet complete with water closet, lavatory, and medicine cabinet unit with a mirror.

C. **Storage and Fabrication Sheds:** Install storage and fabrication sheds sized, furnished, and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces within the building or elsewhere on-site.

D. **Temporary Enclosures:** Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities.

1. Where heat is needed and the permanent building enclosure is not complete, provide temporary

enclosures where there is no other provision for containment of heat. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.

2. Install tarpaulins securely, with incombustible wood framing and other materials. Close openings of 25 sq. ft. (2.3 sq. m) or less with plywood or similar materials.
3. Close openings through floor or roof decks and horizontal surfaces with load-bearing, wood-framed construction.
4. Where temporary wood or plywood enclosure exceeds 100 sq. ft. (9.2 sq. m) in area, use UL-labeled, fire-retardant-treated material for framing and main sheathing.

E. Temporary Lifts and Hoists: Provide facilities for hoisting materials and employees. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.5 FIRE PROTECTION FACILITIES INSTALLATION

A. Except for use of permanent fire protection as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer, as requested by the Designer.

B. Temporary Fire Protection: Until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers" and NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations."

1. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
2. Store combustible materials in containers in fire-safe locations.
3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire-protection facilities, stairways, and other access routes for fighting fires.
4. Prohibit smoking within any building, structure, other enclosures or in hazardous fire-exposure areas.
5. Prohibit smoking in hazardous fire-exposure areas.
6. Provide supervision of welding operations, combustion-type temporary heating units, and similar sources of fire ignition.

C. Permanent Fire Protection: At the earliest feasible date in each area of the Project, complete installation of the permanent fire-protection facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities.

D. Barricades, Warning Signs, and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.

Temporary Fencing: Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch-(3.76-mm-) thick, galvanized steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top rails.

E. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted or that other undesirable effects might result. Avoid use of tools and equipment that produce harmful noise. Restrict use of noise-making tools and equipment to hours that will minimize complaints from persons or firms near the site.

3.6 OPERATION, TERMINATION, AND REMOVAL

A. **Supervision:** Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.

B. **Maintenance:** Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.

2. Protection: Prevent water-filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.

C. **Termination and Removal:** Unless the Designer requests that it be maintained longer, remove each temporary facility when the need has ended, when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are the Contractor's property. The Owner reserves the right to take possession of project identification signs.

END OF SECTION 02 80 40

SECTION 02 80 41 - TEMPORARY PRESSURE DIFFERENTIAL AND AIR CIRCULATION SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-2 Specification Sections, apply to work of this section.

1.2 RELATED SECTIONS

A. **Heating and cooling requirements** are set forth in Section “Temporary Facilities - Asbestos Abatement”.

1.3 MONITORING

A. **Continuously monitor** and record the pressure differential between the Work Area and the building/areas outside of each Work Area with a monitoring device incorporating a continuous recorder (e.g. strip chart).

1.4 SUBMITTALS

A. **Before Start of Work:** Submit design of pressure differential system to the Designer for review. Do not begin work until submittal is returned with the Designer’s action stamp indicating that the submittal is returned for unrestricted use. Include in the submittal at a minimum:

1. Number of HEPA filtered fan units required and the calculations necessary to determine the number of machines
2. Description of projected air flow within Work Area and methods required to provide adequate air flow in all portions of the work area
3. Anticipated pressure differential across Work Area enclosures
4. Description of methods of testing for correct air flow and pressure differentials
5. Manufacturer's product data on the HEPA filtered fan units to be used
6. Location of the machines in the Work Area
7. Method of supplying adequate power to the machines and designation of building electrical panel(s) which will be supplying the power.
8. Description of work practices to insure that airborne fibers travel away from workers
9. Manufacturer's product data on equipment used to monitor pressure differential between inside and outside of Work Area.
10. Manufacturer's product data on auxiliary generator to be used
11. Manufacturer's product data on auxiliary power switch to be used
12. Schematic diagram of power and auxiliary power supply to HEPA filtered fan units

B. **On a weekly basis:** Submit printout from pressure differential monitoring equipment. Mark printout with date and start of time for each day. Use printout paper that indicates elapsed time in intervals no greater than hours. Indicate on each day’s record times of starting and stopping abatement work, type of work in progress, breaks for lunch or other purposes, periods of stop work, and filter changes. Cut printout into segments by day, attach to 8 ½" by 11" paper. Label with project name, contractors name and date.

1.5 QUALITY ASSURANCE:

A. **Monitor pressure differential** at Personnel and Equipment Decontamination Units with a differential

pressure meter equipped with a continuous recorder. Meter shall be equipped with a warning buzzer which will sound if pressure differential drops below 0.02 inch [0.5 mm] of water.

PART 2 - PRODUCTS

2.1 HEPA FILTERED FAN UNITS:

A. **General:** Supply the required number of HEPA filtered fan units to the site in accordance with these specifications. Use units that meet the following requirements.

B. **Cabinet:** Constructed of durable materials able to withstand damage from rough handling and transportation. The width of the cabinet should be less than 30 inches [0.76 meters] to fit through standard-size doorways. Provide units whose cabinets are:

1. Factory-sealed to prevent asbestos-containing dust from being released during use, transport, or maintenance
2. Arranged to provide access to and replacement of all air filters from intake end
3. Mounted on casters or wheels

C. **Fans:** Rate capacity of fan according to usable air-moving capacity under actual operating conditions.

D. **HEPA Filters:** Provide units whose final filter is the HEPA type with the filter media (folded into closely pleated panels) completely sealed on all edges with a structurally rigid frame.

1. Provide units with a continuous rubber gasket located between the filter and the filter housing to form a tight seal.
2. Provide HEPA filters that are individually tested and certified by the manufacturer to have an efficiency of not less than 99.97 percent when challenged with 0.3 um dioctylphthalate (DOP) particles when tested in accordance with Military Standard Number 282 and Army Instruction Manual 136-300-175A. Provide filters that bear a UL586 label to indicate ability to perform under specified conditions.
3. Provide filters that are marked with: the name of the manufacturer, serial number, air flow rating, efficiency and resistance, and the direction of test air flow.
4. Pre-filters, which protect the final filter by removing the larger particles, are required to prolong the operating life of the HEPA filter. Two stages of pre-filtration are required. Provide units with the following pre-filters:

    a. First-stage pre-filter: low-efficiency type (e.g., for particles 100 um and larger)
    b. Second-stage (or intermediate) filter: medium efficiency (eg., effective for particles down to 5 um)
    c. Provide units with pre-filters and intermediate filters installed either on or in the intake grid of the unit and held in place with special housings or clamps.

E. **Instrumentation:** Provide units equipped with:

1. Magnehelic gauge or manometer to measure the pressure drop across filters and indicate when filters have become loaded and need to be changed

2. A table indicating the usable air-handling capacity for various static pressure readings on the Magnehelic gauge affixed near the gauge for reference, or the Magnehelic reading indicating at what point the filters should be changed, noting Cubic Feet per Minute (CFM) (Liters / Second (LPS)) air delivery at that point

3. Elapsed time meter to show the total accumulated hours of operation

F. Safety and Warning Devices: Provide units with the following safety and warning devices:

1. Electrical (or mechanical) lockout to prevent fan from operating without a HEPA filter

2. Automatic shutdown system to stop fan in the event of a rupture in the HEPA filter or blocked air discharge

3. Warning lights to indicate normal operation (green), too high a pressure drop across the filters (i.e., filter overloading) (yellow), and too low of a pressure drop (i.e., rupture in HEPA filter or obstructed discharge) (red)

4. Audible alarm if unit shuts down due to operation of safety systems

G. Electrical components: Provide units with electrical components approved by the National Electrical Manufacturers Association (NEMA) and Underwriter's Laboratories (UL). Each unit is to be equipped with overload protection sized for the equipment. The motor, fan, fan housing, and cabinet are to be grounded.

H. Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

I. Manufacturer: Subject to compliance with requirements, provide products of the following or equal:

1. HEPA filtered Fan Units:

Aerospace America, Inc. www.aerospaceamerica.com

Abatement Technologies www.abatement.com

2. Hazardous Locations: The following manufacturer provides pneumatically powered machines for use in asbestos abatement jobs in hazardous locations where electric motors are prohibited.

Abatement Technologies www.abatement.com

2.2 NOT USED

2.3 NOT USED

PART 3 - EXECUTION

3.1 PRESSURE DIFFERENTIAL ISOLATION

A. Isolate the Work Area from all adjacent areas or systems of the building with a Pressure Differential that will cause a movement of air from outside to inside at any breach in the physical isolation of the Work Area.

B. Relative Pressure in Work Area: Continuously maintain the work area at an air pressure that is lower than that in any surrounding space in the building, or at any location in the immediate proximity outside of the building envelope. This pressure differential when measured across any physical or critical barrier must equal or exceed a static pressure of: 0.02 inches (0 .5 mm) of water.

C. **Accomplish the pressure differential by exhausting** a sufficient number of HEPA filtered fan units from the work area. The number of units required will depend on machine characteristics, the seal at barriers, and required air circulation. The number of units will increase with increased make-up air or leaks into the Work Area. Determine the number of units required for pressure isolation by the following procedure:

1. Establish required air circulation in the work area, personnel and equipment decontamination units.

2. Establish isolation by increased pressure in adjacent areas or as part of seals where required.

3. Exhaust a sufficient number of units from the work area to develop the required pressure differential.

4. The required number of units is the number determined above plus one additional unit.

5. Vent HEPA filtered fan units to outside of building unless authorized in writing by Designer.

6. Vent each HEPA filtered fan unit to inlet of second unit. Vent second unit to a controlled area in the building. Insure that controlled area is isolated from balance of building by critical barriers at all times that units are in operation.

7. Mount units to exhaust directly or through disposable ductwork.

8. Use only new ductwork except for sheet metal connections and elbows.

9. Use ductwork and fittings of same diameter or larger than discharge connection on fan unit.

10. Use inflatable, disposable plastic ductwork in lengths not greater than 100 feet (30 meters).
11. Use spiral wire-reinforced flex duct in lengths not greater than 50 feet (15 meters).

12. Arrange exhaust as required to inflate duct to a rigidity sufficient to prevent flapping.

13. If direction of discharge from fan unit is not aligned with duct use sheet metal elbow to change direction. Use six feet (2 meters) of spiral wire reinforced flex duct after direction change.

D. **Isolation of elevators, stair towers, and return air intakes:** Erect seals with an air space at doors to elevators and stair towers. Pressurize this space with HEPA-filtered air so that it is at a pressure greater than either the Work Area elevator shaft or stair tower.

1. Fabricate seal by first sealing door with duct tape and 6 mil polyethylene. Construct a barrier from ½" (13 mm) gypsum board supported by 3-5/8" (92 mm) x 25 gauge metal studs at 16" (410 mm) on centers. Space face of barrier a minimum of 3" (76 mm) from face of door. Seal barrier with 6 mil (0.15 mm) sheet plastic and duct tape.

2. Fabricate seal by first sealing door with duct tape and 6 mil (0.15 mm) polyethylene. Construct a barrier from ½" (13mm) CDX plywood supported by 2" X 4" (51 mm x 102 mm) wood studs at 16" (410 mm) on centers. Space face of barrier a minimum of 3" (76 mm) from face of door. Seal barrier with 6 mil (0.15 mm) sheet plastic and duct tape.

3. Use plywood and framing lumber that is treated to be fire resistant.

4. Pressurize space with exhaust from HEPA filtered fan unit. Continuously maintain a pressure differential with this space a minimum of 0.02 inches (0.5 mm) of water higher in static pressure than

any adjacent space.

5. Locate HEPA filtered fan unit outside of work area. Fabricate a manifold as required to distribute air to individual spaces to be isolated. Provide relief venting at unit as required to prevent shut down due to low air flow while still maintaining required air pressure.

E. **Isolation of chases and enclosed stairs:** Pressurize chases and enclosed stairs with HEPA filtered air so that it is at a pressure greater than any adjacent work area.

1. Pressurize space with exhaust from HEPA filtered fan unit. Continuously maintain a pressure differential with this space a minimum of 0.02 (.5 mm) inches of water higher in static pressure than any adjacent work area.

F. **Isolation of chases and enclosed stairs:** Pressurize chases and enclosed stairs so that they are at a pressure greater than any adjacent work area.

1. Pressurize space with centrifugal-type fans. Axial type fans are not to be used for this purpose. Continuously maintain a pressure differential in this space a minimum of 0.02 inches (0.5 mm) of water higher in static pressure than any adjacent work area.

G. **Isolation of return air ductwork:** Return air duct work which must be kept operating is located in the Work Area. This duct work is to be isolated from the Work Area by an enclosure forming an annular space around the duct which is positively pressurized with HEPA filtered air.

1. Wrap the duct with 6 mil (0.15 mm) polyethylene. Seal all polyethylene seams with spray glue and duct tape.

2. Enclose wrapped duct with two layers of polyethylene. Fabricate inner layer from 6 mil (0.15 mm) polyethylene with all seams sealed with spray glue and duct tape. Arrange outer layer to support inner layer. Fabricate out of reinforced sheet plastic with seams sealed with spray glue and duct tape and reinforced with staples. Support outer layer with a frame work fabricated from 2" x 4"s (51 mm x 102 mm) at 24" (610 mm) on center. Enclosures less than 2'-6' in diameter may be reinforced with box strapping in lieu of wood framing.

3.2 NOT USED

3.3 AIR CIRCULATION IN THE WORK AREA:

A. **Air Circulation:** For purposes of this section air circulation refers to either the introduction of outside air to the Work Area or the circulation and cleaning of air within the Work Area. Maintain the Work Area and all adjacent areas or systems of the Work Area with a Pressure Differential as specified in this section that will cause a movement of outside work area to inside work area. Contractor shall continuously monitor and record the pressure differential between the Work Area and the building outside of the Work Area with a monitoring device incorporating a continuous recorder (e.g. strip chart).

B. **Air circulation in the Work Area** is a minimum requirement intended to help maintain airborne fiber counts at a level that does not significantly challenge the work area isolation measures. The Contractor may also use this air circulation as part of the engineering controls in the worker protection program.

C. **Determining the Air circulation Requirements:** The air flow volume (cubic meters per minute) exhausted (removed) from the workplace must exceed the amount of makeup air supplied to the enclosure. Provide a fully operational air circulation system supplying a minimum of the following air circulation rate: 4 air

changes per hour

D. Determine Number of Units needed to achieve required air circulation according to the following procedure:

1. Determine the volume in cubic feet of the work area by multiplying floor area by ceiling height. Determine total air circulation requirement in cubic feet per minute (CFM) for the work area by dividing this volume by 60 and multiplying by the air change rate.

2. Air Circulation Required in Cubic Feet of Air per Minute (CFM) =

$$\frac{\text{Volume of work area (cu. ft.)}}{\text{60 (minutes per hour)}} \times \text{Number of air changes per hour}$$

3. Divide the air circulation requirement (CFM) above by capacity of HEPA filtered fan unit(s) used. Capacity of a unit for purposes of this section is the capacity in cubic feet per minute with fully loaded filters (pressure differential which causes loaded filter warning light to come on) in the machine's labeled operating characteristics.

4. Number of Units Needed =

$$\frac{\text{Air circulation Requirement (CFM)}}{\text{Capacity of Unit with Loaded Filters (CFM)}}$$

5. Add one (1) additional unit as a backup in case of equipment failure or machine shutdown for filter changing.

3.4 EXHAUST SYSTEM:

A. **Pressure differential isolation and air circulation** and pressure differential in the Work Area are to be accomplished by an exhaust system as described below.

1. Exhaust all units from the Work Area to meet air circulation requirement of this section.

2. Location of HEPA Filtered Fan Units: Locate fan unit(s) so that makeup air enters work area primarily through decontamination facilities and traverses Work Area as much as possible. This may be accomplished by positioning the HEPA filtered fan unit(s) at a maximum distance from the worker access opening or other makeup air sources.

3. The end of the unit or its exhaust duct should be placed through an opening in the plastic barrier or wall covering. Seal plastic around the unit or duct with tape.

4. Vent to Outside of Building, unless authorized in writing by the Designer.

5. Air Handling Unit Exhaust: The exhaust plume from air handling units should be located away from adjacent personnel and intakes for HVAC systems.

6. Decontamination Units: Arrange Work Area and decontamination units so that the majority of make up air comes through the Decontamination Units. Use only personnel or equipment Decontamination Unit at any time and seal the other so that make up air passes through unit in use.

7. Supplemental Makeup Air Inlets: Provide where required for proper air flow through the Work Area in location approved by the Designer by making openings in the plastic sheeting that allow air from outside the building into the Work Area. Locate auxiliary makeup air inlets as far as possible from

the fan unit(s) (e.g., on an opposite wall), off the floor (preferably near the ceiling), and away from barriers that separate the Work Area from occupied clean areas. Cover with flaps to reseal automatically if the pressure differential system should shut down for any reason. Spray flap and around opening with spray adhesive so that if flap closes meeting surfaces are both covered with adhesive. Use adhesive that forms contact bond when dry.

3.5 RECIRCULATION SYSTEM:

A. Pressure differential isolation and air circulation in the Work Area are to be accomplished by a recirculation system as described below.

1. Re-circulate air in the Work Area through HEPA filtered fan units to accomplish air circulation requirements of this section.

2. Location of Fan Units: Locate HEPA filtered fan units so that air is circulated through all parts of the Work Area, and so that required pressure is maintained at all parts of Work Area geometry. Move units as necessary, so that in any location where asbestos-containing materials are being disturbed, air movement is directed away from employees, and toward the HEPA filter fan unit. Direct air flow in these locations so that it is predominantly toward workers' backs at the breathing zone elevation.

3.6 AIR CIRCULATION IN DECONTAMINATION UNITS:

A. **Pressure Differential Isolation:** Continuously maintain the pressure differential required for the work area in the:

1. Personnel Decontamination Unit: across the Shower Room with the Equipment Room at a lower pressure than the Clean room.

2. Equipment Decontamination Unit: Across the Holding Room with the Wash Room at a lower pressure than the Clean Room.

B. **Air Circulation:** Continuously maintain air circulation in Decontamination Units at same level as required for Work Area.

C. **Air Movement:** Arrange air circulation through the Personnel Decontamination Unit so that it produces a movement of air from the Clean Room through the Shower Room into the Equipment Room. At each opening, the air flow velocity must be sufficient to provide visible indications of air movement into the work area.. The velocity of air flow within the enclosure must be adequate to remove airborne contamination from each worker's breathing zone without disturbing the asbestos-containing material on surfaces.

3.7 USE OF THE PRESSURE DIFFERENTIAL AND AIR CIRCULATION SYSTEM:

A. **General:** Each unit shall be serviced by a dedicated minimum 115V-20A circuit with ground fault circuit interrupter (GFCI) supplied from temporary power supply installed under requirements of Section "Temporary Facilities." Do not use existing branch circuits to power fan units.

B. **Air Flow Tests:** Air flow patterns will be checked before removal operations begin, at least once per operating shift and any time there is a question regarding the integrity of the enclosure. The primary test for air flow is to trace air currents with smoke tubes or other visual methods. Flow checks are made at each opening and at each doorway to demonstrate that air is being drawn into the enclosure and at each worker's position to show that air is being drawn away from the workers location and toward the HEPA filtration unit.

C. **Demonstrate Condition of Equipment** for each HEPA filtered fan unit and pressure differential monitoring equipment including proper operation of the following:

1. Squareness of HEPA Filter

2. Condition of Seals

3. Proper operation of all lights

4. Proper operation of automatic shut down if exhaust is blocked

5. Proper operation of alarms

6. Proper operation of Magnehelic gauge

7. Proper operation and calibration on pressure monitoring equipment

D. **Demonstrate Operation** of the pressure differential system to the Designer will include, but not be limited to, the following:

1. Plastic barriers and sheeting move lightly in toward Work Area,

2. Curtain of decontamination units move lightly in toward Work Area,

3. There is a noticeable movement of air through the Decontamination Unit.

4. Use smoke tube to demonstrate air movement from Clean Room through Shower Room to Equipment Room.

5. Use smoke tubes to demonstrate a definite motion of air across all areas in which work is to be performed.

6. Use a differential pressure meter or manometer to demonstrate the required pressure differential at every barrier separating the Work Area from the balance of the building, equipment, ductwork or outside.

7. Modify the Pressure Differential System as necessary to demonstrate successfully the above.

E. **Use of System during Abatement Operations:**

1. Start fan units before beginning work (before any asbestos-containing material is disturbed). After abatement work has begun, run units continuously to maintain a constant pressure differential and air circulation until decontamination of the work area is complete. Do not turn off units at the end of the work shift or when abatement operations temporarily stop.

2. Monitoring Pressure Within the Enclosure: After the initial air flow patterns have been checked, the static pressure must be monitored within the enclosure. Monitoring may be made using manometers, pressure gauges, or combinations of these devices. It is recommended that they be attached to alarms and strip chart recorders.

3. Do not shut down air pressure differential system during encapsulating procedures, unless authorized by the Designer in writing. Supply sufficient pre-filters to allow frequent changes.

4. Start abatement work at a location farthest from the fan units and proceed toward them. If an electric power failure occurs, immediately stop all abatement work and do not resume until power is restored and fan units are operating again.

5. Corrective Actions: If the manometers or pressure gauges demonstrate a reduction in pressure differential below the required level, work should cease and the reason for the change investigated and appropriate changes made. The air flow patterns should be retested before work begins again.

6. At completion of abatement work, allow fan units to run as specified under section "Project Decontamination", to remove airborne fibers that may have been generated during abatement work and cleanup and to purge the Work Area with clean makeup air. The units may be required to run for a longer time after decontamination, if dry or only partially wetted asbestos material was encountered during any abatement work.

F. Dismantling the System:

1. When a final inspection and the results of final air tests indicate that the area has been decontaminated, fan units may be removed from the Work Area. Before removal from the Work Area, remove and properly dispose of pre-filter, decontaminate exterior of machine and seal intake to the machine with 6 mil (0.15 mm) polyethylene to prevent environmental contamination from the filters.

END OF SECTION – 02 80 41

SECTION 02 80 42 - TEMPORARY ENCLOSURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. **Drawings and general provisions of the Contract**, including General and Supplementary Conditions and other Division 2 Specification Sections, apply to work of this section.

1.2 SUBMITTALS:

A. **Before Start of Work** submit the following to the Designer for review. Do not begin work until these submittals are returned with the Designer's action stamp indicating that the submittal is returned for unrestricted use.

1. Strippable Coatings: Submit following:
- a. Product description including major components and solvents.
- b. Test report on ASTM E84 test of surface burning characteristics.
- c. Manufacturer's installation instructions. Indicate portions applicable to the project and selected assemblies where the manufacturer offers alternatives.

2. Spray Cement: Submit following:
- a. Product description including major components and solvents.
- b. Manufacturer's installation instructions. Indicate portions applicable to the project.

3. Sheet Plastic: For fire retardant plastic submit test reports on NFPA 701 test.

4. Signs: Submit samples of signs to be used.

B. **Before Start of Work** submit the following to the Designer for review. Do not begin work until these submittals are returned with the Designer's action stamp indicating that the submittal has been' "Received - Not Reviewed."

1. Material Safety Data Sheet: Submit Material Safety Data Sheets, or equivalent, in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) for the following:
- a. Strippable Coating.
- b. Spray Cement.

PART 2 - PRODUCTS

2.1 SHEET PLASTIC:

A. **Polyethylene Sheet:** A single polyethylene film in the largest sheet size possible to minimize seams, 6.0 mil (0.15 mm) thick, clear, frosted, or black as indicated.

B. **Polyethylene Sheet:** Provide flame-resistant polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-Resistant Textiles and Films. Provide largest size possible to minimize seams, 6.0 mil (0.15 mm) thick frosted or black as indicated.

C. **Reinforced Polyethylene Sheet:** Where plastic sheet constitutes the only barrier between the work area and the building exterior, provide translucent, nylon reinforced or woven polyethylene, laminated, flame-resistant, polyethylene film that conforms to requirements set forth by the National Fire Protection

Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films. Provide largest size possible to minimize seams, 6.0 mil (0.15 mm) thick, frosted or black as indicated.

2.2 STRIPPABLE COATINGS:

A. **Strippable Coatings:** Provide strippable coatings in aerosol cans or premixed for spray application formulated to adhere gently to surfaces and remove cleanly by peeling off at the completion of the work.

1. Provide only water-based latex materials.
2. Provide materials manufactured for the specific application required.

B. **Wall coating:** designed to be easy to remove.

C. **Floor coating:** designed to provide a tough film which resists spread of water beneath plastic layer.

D. **Window coating:** recommended by the manufacturer for use on windows. Supply materials that are designed to be stable on glass in sunlight and resist the transmission of ultraviolet radiation.

E. **Fire Safety:** Provide materials that meet the following requirements:

1. When wet or while being installed:
a. Do not create combustible vapors
b. Have no flash point
c. Are not noxious
d. Department of Transportation category of non-flammable.

2. When dry, material must have a Class A rating as a building material and meet the following requirements when tested in accordance with ASTM E-84:
a. Flame Spread no greater than 20
b. Fuel Contributed 0
c. Smoke Developed no more than 110

F. **Deliver materials** to the job site in unopened, factory-labeled containers.

G. **Available Manufacturers:** Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

H. **Manufacturer:** Subject to compliance with requirements, provide products of one of the following:

1. Isotek Corporation Spray Poly
P.O. Box 29799
New Orleans, LA 70189-0799
(504)367-9856

2. H.B. Fuller Co. Spray Poly
3900 Jackson St., NE Part no. 3256
Minneapolis, MN 55421
(800) 328-4594

2.3 MISCELLANEOUS MATERIALS:

A. **Duct Tape:** Provide duct tape in 2 inch or 3 inch (50 mm or 75 mm) widths as indicated, with an adhesive which is formulated to stick aggressively to sheet polyethylene.

B. **Spray Cement:** Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.

PART 3 - EXECUTION

3.1 SEQUENCE OF WORK:

A. **Carry out work of this section sequentially**. Complete each of the following activities in accordance with requirements before proceeding to the next.

1. Provide emergency exits and emergency lighting.
2. Control access
3. Provide respiratory and worker protection.
4. Provide Critical Barriers.
5. Prepare Area.
6. Provide Primary Barriers.
7. Provide Isolation Areas as required.
8. Provide Secondary Barrier.

3.2 GENERAL:

A. **Work Area:** the location where asbestos abatement work occurs. The Work Area is a variable of the extent of work of the Contract. It may be a portion of a room, a single room, or a complex of rooms. A "Work Area" is considered contaminated during the work, and must be isolated from the balance of the building, and decontaminated at the completion of the asbestos control work.

B. **Completely isolate the Work Area** from other parts of the building so as to prevent asbestos-containing dust or debris from passing beyond the isolated area. Should the area beyond the Work Area(s) become contaminated with asbestos-containing dust or debris as a consequence of the work, clean those areas in accordance with the procedures indicated in Section “Project Decontamination”. Perform all such required cleaning or decontamination at no additional cost to owner.

C. Construct enclosures to provide an air-tight seal around ducts and openings into existing ventilation systems and around penetrations for electrical conduits, telephone wires, water lines, drain pipes, etc. Construct enclosures to be both airtight and watertight except for those openings designed to provide entry and/or air flow control.

D. **Size:** Construct enclosure with sufficient volume to encompass all of the working surfaces yet allow unencumbered movement by the worker(s), provide unrestricted air flow past the worker(s), and ensure walking surfaces can be kept free of tripping hazards.

E. **Shape:** The enclosure may be any shape that optimizes the flow of ventilation air past the worker(s).

F. **Structural Integrity:** The walls, ceilings and floors must be supported in such a manner that portions of the enclosure will not fall down during normal use.

G. **Barrier Supports:** Provide frames as necessary to support all unsupported spans of sheeting.

H. **Openings:** It is not necessary that the structure be airtight; openings may be designed to direct air flow. Such openings are to be located at a distance from active removal operations. They are to be designed to draw air into the enclosure under all anticipated circumstances. In the event that negative pressure is lost, they are to be fitted with either HEPA filters to trap dust or automatic trap doors that prevent dust from escaping the enclosure. Openings for exits are to be controlled by an airlock or a vestibule.

I. **Place all tools**, scaffolding, staging, etc. necessary for the work in the area to be isolated prior to completion of Work Area isolation.

J. **Areas Within an Enclosure:** Each enclosure consists of a work area, a decontamination area, and waste storage area. The work area where the asbestos removal operations occur are to be separated from both the waste storage area and the contamination control area by physical curtains, doors, and/or airflow patterns that force any airborne contamination back into the work area. Unless infeasible, the Contractor shall construct each building's containment system to enclose all of the building's respective asbestos abatement work that requires Work of This Section.

K. **Removing Mobile Objects:** Clean movable objects and remove them from the work area before an enclosure is constructed unless moving the objects creates a hazard. Mobile objects will be assumed to be asbestos contaminated and are to be either cleaned with amended water and a HEPA vacuum and then removed from the area or wrapped and then disposed of as asbestos-contaminated waste.

L. **Disabling HVAC Systems:** The power to the heating, ventilation, and air conditioning systems that service the regulated area must be deactivated and locked out. All ducts, grills, access ports, windows and vents must be sealed off with two layers of plastic to prevent entrainment of contaminated air.

M. **Operating HVAC Systems in the regulated Area:** If components of a HVAC system located in the regulated area are connected to a system that will service another zone during the project, the portion of the duct in the regulated area must be sealed and pressurized. Necessary precautions include caulking the duct joints, covering all cracks and openings with two layers of sheeting, and pressurizing the duct throughout the duration of the project by restricting the return air flow. The power to the fan supplying the positive pressure should be locked "on" to prevent pressure loss.

1. If fan providing positive pressure fails for any reason, immediately stop asbestos removal work, mist the area to reduce airborne fiber levels. Notify the Project Administrator. Do not re-start asbestos removal work until authorized by the Designer.

N. **Lockout power to Work Area** by switching off all breakers serving power or lighting circuits in work area. A lock and tag shall be placed on each breaker used to de-energize circuits and equipment with notation "DANGER circuit being worked on". Lock panel and have all keys under control of authorized person who has applied the locks.

O. **Lockout power** to circuits running through work area wherever possible by switching off all breakers or removing fuses serving these circuits. Label breakers with tape over breaker with notation "DANGER circuit being worked on". Lock panel and have all keys under control of authorized person who applied locks. If circuits cannot be shut down for any reason, label at intervals 4 feet (1.22 m) on center with signs reading, "DANGER live electric circuit. Electrocution hazard." Label circuits in hidden locations but which may be affected by the work in a similar manner.

P. **Inspection Windows:** Install inspection windows in locations shown on the plans or as directed by the Designer. Each inspection window is to have a 24 inch X 24 inch (610 X 610 mm) viewing area fabricated from 1/4 inch (6.35 mm) acrylic or polycarbonate sheet. Install window with top at 6 feet-6 inches (1.98 m) above floor height in a manner that provides unobstructed vision from outside to inside of the Work Area. Protect window from damage from scratching, dirt or any coatings used during the work. A sufficient

number of windows are to be installed to provide observation of all portions of the Work Area that can be made visible from adjacent areas. Inspection windows that open into uncontrolled area are to be covered with a removable plywood hatch secured by lock and key. Provide keys to Designer for all such locks.

3.3 EMERGENCY EXITS:

A. **Provide emergency exits and emergency lighting** as set forth below:

1. Emergency Exits: At each existing exit door from the Work Area provide the following means for emergency exiting:

2. Arrange exit door so that it is secure from outside the Work area but permits exiting from the Work Area.

3. Mark outline of door on Primary and Critical Barriers with luminescent paint at least 1 inch (25.4 mm) wide. Hang a razor knife on a string beside outline. Arrange Critical and Primary barriers so that they can be easily cut with one pass of razor knife. Paint words "EMERGENCY EXIT" inside outline with luminescent paint in letters at least one foot high and 2 inches (50.8 mm) wide.

4. Provide lighted EXIT sign at each exit.

5. Provide battery-operated emergency lighting that switches on automatically in the event of a power failure.

3.4 CONTROL ACCESS:

A. **Isolate the Work Area** to prevent entry by building occupants into Work Area or surrounding controlled areas. Accomplish isolation by the following:

1. Submit to Designer a list of doors and other openings that must be secured to isolate Work Area. Include on list notation if door or opening is in an indicated exit route.

2. After receiving written authorization from the Designer lock all doors into Work Area, or, if doors cannot be locked, chain shut. Notify the local fire department of the list of doors/or other openings which must be chained or otherwise secured shut. Cover any signs that direct emergency exiting, either outside or inside of Work Area, to locked doors. Do not obstruct doors required for emergency exits from Work Area or from building.

3. After receiving written authorization from the Designer, construct partitions or closures across any opening into Work Area. Partitions are to be a minimum of 8 feet (2.44 meters) high.

4. Fabricate partitions from 3-5/8 inch (9.21 cm) , 25 gage metal studs with ½ inch (1.27 cm) gypsum board on both faces. Brace at intervals of 4 feet (1.22 m) on center.

5. Fabricate partitions from 2 inch X 4 inch (50.8mm X 101.6mm) wood studs with ½ inch (1.27 cm) plywood on both faces. Brace at intervals of 4 feet (1.25 m) on center.

6. Fabricate partitions from 2 inch X 4 inch (50.8 mm X 101.6 mm) wood studs with ½ inch (1.27 cm) plywood on both faces. Brace at intervals of 4 feet (1.22 m) on center. Use only fire retardant treated wood.

7. Fabric-type folding partitions: provide temporary partitions across fabric-type folding doors or

partitions into Work Area.

8. Rigid-type folding partitions: remove operating bar and latch on clean side of folding partitions. Fasten down operating lever with hook and chain or other secure device on Work Area side. At completion of all abatement work reinstall bar and latch and adjust for proper operation.

9. Modify elevator controls to prevent elevators from stopping at doors in Work Areas. This work is to be performed by a qualified elevator technician.

10. Replace passage sets on doors required for exiting from Work Area with temporary locksets for duration of the project. Use entry type locksets that are key lockable from one side and always operable from inside. Install locksets with key side in stair tower and escape side on Work Area side. Provide one key to Owner and maintain one key in clean room of decontamination unit. After meeting Contractor release criteria set forth in Section "Project Decontamination", reinstall original passage sets and adjust for proper operation.

B. **Locked Access:** Arrange Work Area so that the only access into Work Area is through lockable doors to personnel and equipment decontamination units.

1. Install temporary doors with entrance type locksets that are key lockable from the outside and always unlocked and operable from the inside. Do not use deadbolts or padlocks.

2. Replace locksets or passage sets on doors leading to decontamination units with temporary locksets for duration of the project. Remove any deadbolts or padlocks. Use entry type locksets that are key lockable from outside and always unlocked and operable from inside. After meeting contractor release criteria set forth in Section "Project Decontamination" reinstall original locks, passage sets and locksets and adjust for proper operation.

3. Provide one key for each door to Owner, and Designer and maintain one key in clean room of decontamination unit (3 total).

C. **Visual Barrier:** Where the Work Area is immediately adjacent to or within view of occupied areas, provide a visual barrier of opaque polyethylene sheeting at least 6 mil (0.15 mm) in thickness so that the work procedures are not visible to building occupants. Where this visual barrier would block natural light, substitute frosted or woven rip-stop sheet plastic in locations approved by the Designer.

D. **Demarcation.** Demarcate the regulated area in any manner that minimizes the number of persons within the area and protects persons outside the area from exposure to airborne concentrations of asbestos. Where critical barriers or negative pressure enclosures are used, they may demarcate the regulated area.

E. **Access.** Limit access to regulated areas to authorized persons as defined by OSHA, and to the Owner, Designer, Project Administrator or a representative authorized by one of these entities.

F. **Provide Warning Signs** at each locked door leading to Work Area reading as follows:

1. Print text in both English and Spanish

Legend	**Notation**
KEEP OUT	3 inch (77 mm) Sans Serif Gothic or Block
BEYOND THIS POINT	1 inch (25.4 mm) Sans Serif Gothic or Block
ASBESTOS ABATEMENT WORK	1 inch (25.4 mm) Sans Serif Gothic or Block
IN PROGRESS	1 inch (25.4 mm) Sans Serif Gothic or Block

BREATHING ASBESTOS DUST MAY BE HAZARDOUS TO YOUR HEALTH	14 Point Gothic

2. Provide Warning Signs at each locked door leading to Work Area reading as follows

Legend	**Notation**
KEEP OUT	3 inch (77 mm) Sans Serif Gothic or Block
CONSTRUCTION	1 inch (25.4 mm) Sans Serif Gothic or Block
WORK AREA	1 inch (25.4 mm) Sans Serif Gothic or Block
PROTECTIVE CLOTHING REQUIRED BEYOND THIS POINT	14 Point Gothic

3. Immediately inside door and outside critical barriers post an approximately 20 inch by 14 inch (508 mm X 356 mm) manufactured caution sign displaying the following legend with letter sizes and styles of a visibility required by 29 CFR 1926:

Legend
DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA

4. Provide spacing between respective lines at least equal to the height of the respective upper line.

3.5 ALTERNATE METHODS OF ENCLOSURE:

A. **Alternate methods** of containing the Work Area may be submitted to the Designer for approval in accordance with procedures set forth in Section “Substitutions”. Do not proceed with any such method(s) without prior written approval of the Designer.

B. **Notification:** Before work which involves the removal of more than 25 linear or 10 square feet (7.5 linear meters or 3 square meters) of thermal system insulation or surfacing material is begun using an alternative method which has been the subject of required evaluation and certification. Send a copy of such evaluation and certification to the national office of OSHA, Office of Technical Support, Room N3653, 200 Constitution Avenue, NW, Washington, DC 20210 and to the Designer.

C. **Use a control method** that encloses, contains or isolates the processes or source of airborne asbestos dust, or otherwise captures or redirects such dust before it enters the breathing zone of employees.

D. **Certification:** Submit a certification from a certified industrial hygienist (CIH) or licensed professional engineer who is also qualified as a project designer, who has evaluated the work area, the projected work practices and the engineering controls and who certifies in writing that the planned control method is adequate to reduce direct and indirect employee exposure to below the PELs and any requirements of Section “Respiratory Protection” under worst-case conditions of use, and that the planned control method will prevent asbestos contamination outside the regulated area, as measured by clearance sampling which meets the requirements of EPA's Asbestos in Schools rule issued under AHERA, or perimeter monitoring which meets the criteria of OSHA 1926.1101, and as determined in accordance with the portion of Section “Summary of Work - Asbestos Abatement” that describes the Owner’s monitoring of the project.

3.6 RESPIRATORY AND WORKER PROTECTION:

A. **Before proceeding** beyond this point in providing Temporary Enclosures:
- **1.** Provide Worker Protection
- **2.** Provide Respiratory Protection
- **3.** Provide Personnel Decontamination Unit

3.7 CRITICAL BARRIERS:

A. **Completely Separate** the Work Area from other portions of the building, and the outside by closing all openings with sheet plastic barriers at least 6 mil (0.15 mm) in thickness, or by sealing cracks leading out of Work Area with duct tape.

B. **Individually seal** all ventilation openings (supply and exhaust), lighting fixtures, clocks, doorways, windows, convectors and speakers, and other openings into the Work Area with duct tape alone or with polyethylene sheeting at least 6 mil (0.15 mm) in thickness, taped securely in place with duct tape. Maintain seal until all work including Project Decontamination is completed. Take care in sealing of lighting fixtures to avoid melting or burning of sheeting.

C. **Provide Sheet Plastic** barriers at least 6 mil (0.15 mm) in thickness as required to seal openings completely from the Work Area into adjacent areas. Seal the perimeter of all sheet plastic barriers with duct tape or spray cement.

D. **Mechanically Support** sheet plastic independently of duct tape or spray cement seals so that seals do not support the weight of the plastic. Following are acceptable methods of supporting sheet plastic barriers. Alternative support methods may be used if approved in writing by the Designer.

- **1.** Plywood squares 6 inch x 6 inch x 3/8 inch (152 mm x 152 mm x 9.53mm) held in place with one 6d smooth masonry nail or electro-galvanized common nail driven through center of the plywood and duct tape on plastic so that plywood clamps plastic to the wall. Locate plywood squares at each end, corner and at maximum 4 feet (1.22 m) on centers.

- **2.** Nylon or polypropylene rope or wire with a maximum unsupported span of 10 feet (3.05 m), minimum 1/4 inch (6.35 mm) in diameter suspended between supports securely fastened on either side of opening at maximum 1 foot (304.8 mm) below ceiling. Tighten rope so that it has 2 inches (50.8 mm) maximum dip. Drape plastic over rope from outside Work Area so that a two foot long flap of plastic extends over rope into Work Area. Staple or wire plastic to itself 1 inch (25.4 mm) below rope at maximum 6 inches (152 mm) on centers to form a sheath over rope. Lift flap and seal to ceiling with duct tape or spray cement. Seal loop at bottom of flap with duct tape. Erect entire assembly so that it hangs vertically without a "shelf" upon which debris could collect.

E. **Provide Pressure Differential System** per Section “Temporary Pressure Differential & Air Circulation System”.

- **1.** Clean housings and ducts of all overspray materials prior to erection of any Critical Barrier that will restrict access.

3.8 PREPARE AREA:

A. **Scaffolding:** If fixed scaffolding is to be used to provide access HEPA vacuum and wet clean area prior to scaffolding installation.

B. **Remove all electrical and mechanical items**, such as lighting fixtures, clocks, diffusers, registers, escutcheon plates, etc. which cover any part of the surface to be worked on with the work.

C. **Remove all general construction items** such as cabinets, casework, door and window trim, moldings, ceilings, trim, etc., which cover the surface of the work as required to prevent interference with the work. Clean, decontaminate and reinstall all such materials, upon completion of all removal work with materials, finishes, and workmanship to match existing installations before start of work.

D. **Clean all contaminated furniture**, equipment, and or supplies with a HEPA filtered vacuum cleaner or by wet cleaning, as specified in Section "Project Decontamination", prior to being moved or covered. All equipment furniture, etc. is to be deemed contaminated unless specifically declared as uncontaminated on the drawings or in writing by the Designer.

E. **Clean All Surfaces In Work Area** with a HEPA filtered vacuum or by wet wiping prior to the installation of primary barrier.

F. **Cleaning and Sealing Surfaces:** After cleaning with water and a HEPA vacuum, surfaces of stationary objects should be covered with two layers of plastic sheeting. The sheeting should be secured with duct tape or an equivalent method to provide a tight seal around the object.

3.9 PRIMARY BARRIER:

A. **Protect building and other surfaces** in the Work Area from damage from water and high humidity or from contamination from asbestos-containing debris, slurry or high airborne fiber levels by covering with a primary barrier as described below.

1. Strippable Coating: If strippable coating is used, perform all work in strict compliance with manufacturer's instructions. Carry out work in the following sequence.

a. Inspect: Before start of coating work inspect all surfaces to be coated. Report on any surfaces that may be damaged by the material or any condition that may interfere with adhesion of the coating to a surface to the Designer before application of coating.

b. Photograph or videotape existing damage to affected surfaces and submit documentation to Designer.

c. Test Patches: Apply test patches as directed by Owner or Designer. Apply a small area of strippable coating to a hidden or obscure area of each surface in the Work Area to be coated. Allow to dry and peal off. Demonstrate results to Designer prior to coating entire area. Commence coating of area only after receiving written authorization from the Designer.

d. Cover surfaces and equipment in work are from which coating may not strip cleanly.

e. Cover shelving, clocks, light fixtures and other equipment with one layer of 6 mil (0.15 mm) sheet plastic.

f. Cover fabric, paper, cork wall coverings or unpainted gypsum board with one layer of 6 mil (0.15 mm) sheet plastic.

g. Tape over any cracks that are larger than 1/16 inch (1.59 mm).

h. Tape over electrical outlets, switches, door locks etc.

i. Wood paneling in area may have the finish partially removed by the strippable coating. These surfaces are to be coated directly with strippable coating and are not to be covered with sheet plastic. Refinishing of the this paneling will be accomplished by the Owner and is not a part of the work of this contract.

1) Cover wood paneling in Work Area with one layer of 6 mil (0.15 mm) sheet plastic.

2) Apply small area of coating in concealed location to wood finishes in Work Area. If finish is removed when coating is stripped inform Designer. Cover wood surface with one layer of 6 mil (0.15 mm) sheet plastic unless otherwise notified by Designer.

3) Base bid is for direct coating of wood paneling.

4) If a layer of sheet plastic is necessary this will be a change to the Contract Sum. Submit proposal for change in Contract Sum for the addition of sheet plastic to the Designer.

j. Cover carpeting with three (3) layers of polyethylene sheeting at least 6 mil (0.15 mm) in thickness. Place corrugated cardboard sheets between the top and middle layers of polyethylene.

k. Do not use strippable coating as an adhesive to hold sheet plastic in place.

l. Coat or cover windows into Work Area:

1) Coat windows with window coating applied in a minimum 10 mil (0.254 mm) thickness when wet.

m. Protect critical barriers: Install strippable coating so that it will not remove critical barriers during stripping of coating. Cover critical barriers comprised of sheet plastic with a second layer of sheet plastic configured to be removed with strippable coating. Protect critical barriers made from tape with a protective layer of sheet plastic or duct tape.

n. Coat all surfaces in Work Area with strippable coating in following order.

1) Walls: Coat seams, corners, and junctions vertically. Coat balance of walls horizontally lapping over vertical sprayed areas by 50%.

2) Floor: Coat floor lapping wall by 12 inches (305mm). Start at point furthest from entrance to Work Area and work toward door.

3) Use straight edge to shield ACM from coating during spray application.

o. Apply: to a minimum of the following thicknesses. Thickness is to be measured when material is wet using a wet film thickness gauge.

SURFACE TO BE COATED	MINIMUM THICKNESS WHEN WET	REQUIRED COATING TYPE
Critical Barriers	Not Applicable	Sheet Plastic Covers
Glass	10 mil (0.254 mm)	Window Coating
Plastic Over Glass	2 mil (0.051 mm)	Wall Coating
Paneling Painted Walls, Wall Covering	12 mil (0.305 mm)	Wall Coating
Glazed Tile Smoothly Painted Brick, Painted Concrete Block	15 mil (0.381 mm)	Wall Coating
Floors	15 mil (0.381 mm)	Floor Coating
Unpainted Brick Unpainted Concrete Block, Rough Wood	20 mil (0.51 mm)	Wall Coating

1) Coat brick and concrete block with a sufficient thickness of coating to obscure color of substrate completely.
2) Do not apply over tacky or chalky adhesives remaining from carpet or other flooring covering removal.

p. Respiratory protection: Require that all workers in Work Area from start of spray operation until all surfaces are dry use as a minimum requirement a half-face negative pressure respirator equipped with combination ammonia and HEPA type filter cartridges or other appropriate respiratory protection as required by OSHA 29 CFR 1926.1101(h)(2) and as specified in Section “Respiratory Protection”.

q. Worker protection: Equip all workers in Work Area during spray operation with eye protection, disposable gloves, and disposable paper suits.

r. Ventilation: during spraying operation maintain a minimum of 4 air changes per hour in the entire Work Area. Operate one additional HEPA filtered fan unit per spray operator in area while spraying is taking place.

2. Sealing Elevators: If an elevator shaft is located in the regulated area, it should be either shut down or isolated by sealing with two layers of plastic sheeting. The sheeting should provide enough slack to accommodate the pressure changes in the shaft without breaking the air-tight seal.

3. Elevator: Coat walls, floor and ceiling of elevator in same manner as Work Area. Arrange entry to Work Area so that elevator door is in a positively pressurized space outside the clean room of the decontamination unit. At completion of work clean elevator as set forth in Section “Project Decontamination”. Refer to Section “Summary of the Work” for additional requirements for protection of elevator.

4. Sheet Plastic: Protect surfaces in the Work Area with two (2) layers of plastic sheeting on floor and walls, or as otherwise directed on the Contract Drawings or in writing by the Designer. Perform work in the following sequence.

a. All seams in the sheeting should overlap, be staggered and not be located at corners or wall-to-floor joints.

b. Unless work includes floor tile/mastic removal, cover floor of Work Area with 2 individual layers of clear polyethylene sheeting, each at least 6 mil (0.15 mm) in thickness, turned up walls at least 12 inches (305 mm). Form a sharp right angle bend at junction of floor and wall so that there is no radius which could be stepped on causing the wall attachment to be pulled loose. Both spray-glue and duct tape all seams in floor covering. Locate seams in top layer six feet from, or at right angles to, seams in bottom layer. Install sheeting so that top layer can be removed independently of bottom layer.

c. Unless work includes removal of carpeting and floor tile/mastic, cover carpeting with three (3) layers of polyethylene sheeting at least 6 mil (0.15 mm) in thickness. Place corrugated cardboard sheets between the top and middle layers of polyethylene.

d. Cover Sheet Plastic in areas where scaffolding is to be used with a single layer of ½ inch (13 mm) CDX plywood or 1/4 inch (6.5 mm) tempered hardboard. Wrap edges and corners of each sheet with duct tape. At completion of abatement work wrap plywood or hardboard with 2 layers of 6 mil (0.15 mm) polyethylene and move to next Work Area or dispose of as an asbestos-contaminated waste material in accordance with section “Disposal of Regulated Asbestos Containing Materials”.

e. Cover all walls in Work Area including "Critical Barrier" sheet plastic barriers with one layer of polyethylene sheeting, at least 6 mil (0.15 mm) in thickness, mechanically supported and sealed with duct tape or spray-glue in the same manner as "Critical Barrier" sheet plastic barriers. Tape all joints including the joining with the floor covering with duct tape or as otherwise indicated on the Contract Documents or in writing by the Designer.

f. Elevator: Cover walls, floor and ceiling of elevator with 2 layers of 6 mil (0.15 mm) polyethylene. Arrange entry to Work Area so that elevator door is in a positively pressurized space outside the clean room of the decontamination unit. At completion of work clean elevator as set forth in Section “Project Decontamination”. Refer to Section “Summary of the Work” for additional requirements for protection of elevator.

g. Stairs and Ramps: Do not cover stairs or ramps with unsecured sheet plastic. Where stairs or ramps are covered with plastic, provide 3/4 inch (19.1 mm) exterior grade plywood treads securely held in place, over plastic. Do not cover rungs or rails with any type of protective materials.

h. Repair of Damaged Polyethylene Sheeting: Remove and replace plastic sheeting which has been damaged by removal operations or where seal has failed allowing water to seep between layers. Remove affected sheeting and wipe down entire area. Install new sheet plastic only when area is completely dry.

3.10 ISOLATION AREA:

A. **Maintain isolation areas** between the Work Area and adjacent building area:

1. In locations shown on the plans.
2. In unoccupied rooms located between Work Area and adjacent occupied portions of the building.
3. In locations where separation between Work Area and occupied portions of building is formed by sheet plastic and/or temporary barriers.
4. Floor below Work Area.

B. **Form isolation area** by controlling access to the space in the same manner as a Work Area. Physically isolate the space from the Work Area and adjacent areas. Accomplish physical isolation by:

1. Installing critical barriers in unoccupied space.
2. Erecting a second Critical Barrier a minimum of 3 feet (1.0 m) away from Work Area.

3.11 STOP WORK:

A. **If the Critical or Primary barrier falls** or is breached in any manner stop asbestos removal work immediately and comply with “Stop Work” requirements of Section “Summary of Work - Asbestos Abatement”. Do not start work until authorized in writing by the Designer.

3.12 EXTENSION OF WORK AREA:

A. **Extension of Work Area:** If the Critical Barrier is breached in any manner that could allow the passage of asbestos debris or airborne fibers, then add affected area to the Work Area, enclose it as required by this Section of the specification and decontaminate it as described in Section “Project Decontamination”.

3.13 SECONDARY BARRIER:

A. **Secondary layer** of plastic as a drop cloth to protect the primary layer from debris generated by the asbestos abatement work is specified in the appropriate work sections.

3.14 EXTERIOR ENCLOSURES:

A. **Construct exterior enclosures** as a Critical Barrier as necessary to completely enclose the work. Fabricate from reinforced polyethylene sheeting and 2 inch x 4 inch (51mm X 102 mm) wood framework. Attach to existing building components or brace as necessary for lateral stability. Construct walls to meet all state and local regulations for construction of temporary buildings. Construct to resist a wind of 30 MPH (13.41 m/s), slope ceiling to permit drainage of rain water.

END OF SECTION – 02 80 42

SECTION 02 80 43 - REGULATED AREAS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. **Drawings and general provisions of Contract**, including General and Supplementary Conditions and other Division-2 Specification Sections, apply to work of this section.

1.2 RELATED WORK SPECIFIED ELSEWHERE:

A. **Worker Protection:** is specified in Section "Worker Protection – Asbestos Abatement".
B. **Respiratory Protection:** is specified in Section "Respiratory Protection"
C. **Wet Decontamination Facilities:** are described in Section "Decontamination Units."

1.3 DESCRIPTION OF WORK:

A. Work of this section consists of preparing a Regulated Area for the work.

1.4 SUBMITTALS

A. **Before the Start of Work:** Submit the following to the Designer for review. Begin no work until these submittals are returned with Designer's action stamp indicating that the submittal is returned for unrestricted use or final-but-restricted use.

1. HEPA Filtered Vacuum Cleaners: Submit product data.
2. Signs: Submit samples of each type of sign to be used.
3. Warning Tape: Submit samples.

PART 2 - EQUIPMENT

2.1 PRODUCTS

A. **HEPA Filter Vacuum Cleaners:**

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the Work include, but are not limited to, the following:

2. Manufacturer: Subject to compliance with requirements, provide products of one of the following:

Nilfisk of America, Inc. www.nikliskcfm.com

Minuteman International www.minutemanintl.com

Sylvane, Inc. www.sylvane.com

B. **Plastic Sheet:**

1. Plastic Sheet: A single polyethylene film in the largest sheet size possible to minimize seams, 6.0 mil (0.15 mm) thick, clear, frosted, or black as indicated.

PART 3 - EXECUTION

3.1 SECURING WORK AREA:

A. **Secure work** area from access by occupants, staff or users of the building. Accomplish this where possible, by locking doors, windows, or other means of access to the area, by scheduling work for periods of time that the building in unoccupied, or by constructing temporary wood stud and plywood barriers.

3.2 DEMARCATION OF REGULATED AREA:

A. **Demarcation.** Demarcate the Regulated Area with a sheet plastic drop cloth, signs and barrier tape. Configure the regulated area in a manner that minimizes the number of persons within the area and protects persons outside the area from exposure to airborne concentrations of asbestos.

1. Drop Cloth: Cover floor in vicinity of Work Area and six (6) feet (1.82 meters) beyond, with 6 mil (0.15 mm) polyethylene drop sheet. Where work is adjacent to wall, extend drop sheet up wall and secure at ceiling with duct tape. This drop sheet demarcates the boundary of the Regulated Area.

2. Signs: Post warning signs that carry the following legends in both English and Spanish:

a. First Sign: Provide warning signs at each locked door leading to the controlled area reading as follows:

Legend	**Notation**
KEEP OUT	3 inch (76.2 mm) Block

b. Second Sign: Immediately inside the locked door and outside the controlled area post an approximately 20 inch by 14 inch (508 mm x 356 mm) manufactured caution sign displaying the following legend with letter sizes and styles of a visibility required by 29 CFR 1926:
Legend:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA

3. Barrier Tape: Where the controlled area is in a large area such as on part of a boiler room or open office area, delineate area with 3 inch (76.2 mm) wide polyethylene ribbon with the printed warning, "CAUTION ASBESTOS REMOVAL". Install this ribbon at between 3 and 4 feet (0.91 and 1.22 meters) above the floor.

3.3 SCHEDULING:

A. **Work may be carried out** during normal working hours in those areas which can be completely secured by lockable doors from access by building occupants and staff, and which have HVAC equipment that can be shut down and locked off. Otherwise, work is to be carried out after building occupants and cleaning staff have left.

3.4 GENERAL PROCEDURES:

A. **The following precautions and procedures** have application to work of this section. Workers must exercise caution to avoid release of asbestos fibers into the air:

1. Setup and management of the controlled area is to be under the supervision of a OSHA Competent Person as described in Section "Project Coordination - Asbestos Abatement".

2. Before start of work comply with requirement for in Sections "Worker Protection", and "Respiratory Protection".

3. Do not allow eating, drinking, smoking, chewing tobacco or gum, or applying cosmetics in the Regulated Area.

4. Shut down any air handling equipment bringing air into or out of the Regulated Area.

5. Clean any existing dust or debris from the floor and walls, and other surface in the immediate location of the work prior to commencing work by damp-mopping or by use of a High Efficiency Particulate Air (HEPA) filtered vacuum.

6. Cover floor in vicinity of Work Area and six (6) feet (1.82 meters) beyond, with 6 mil (0.15 mm) polyethylene drop sheet. Where work is adjacent to wall, extend drop sheet up wall and secure at ceiling with duct tape. This drop sheet demarcates the boundary of the Regulated Area.

7. Seal all openings, supply and exhaust vents, and convectors within ten (10) feet (3.05 meters) of the Work Area with 6 mil (0.15 mm) polyethylene sheeting secured and completely sealed with duct tape.

8. Perform the work per the appropriate specification section.

9. Immediately remove any asbestos-containing debris by using a HEPA vacuum or by spraying with amended water or removal encapsulant, collecting with wet paper towels, placing in a disposal bag while still wet, and cleaning surfaces with wet paper towels.

10. Thoroughly decontaminate any tools or equipment used at completion of the work.

11. If work day is complete or if moving to another regulated area: all workers remove paper suits turning them inside out while doing so.

12. Place the suits in a properly labeled disposal bag.

13. Neck down the bag and collapse it with the HEPA vacuum.

14. Twist the bag shut, bend over and seal with duct tape by wrapping around bag neck at least 3 times.

15. Clean all surfaces of the Work Area by use of a HEPA filter vacuum until no visible residue remains.

B. **At completion of work** require all workers to complete decontamination procedures in accordance with Section “Worker Protection”.

C. **Remove respirators** using the procedure in Section “Worker Protection”.

D. **At completion of work** require all workers to complete wet decontamination procedures in accordance with Section “Worker Protection”.

END OF SECTION - 02 80 43

SECTION 02 80 44 - WORKER PROTECTION - ASBESTOS ABATEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-2 Specification Sections, apply to work of this section.

1.2 DESCRIPTION OF WORK:

A. This section describes the equipment and procedures required for protecting workers against asbestos contamination and other workplace hazards except for respiratory protection.

1.3 RELATED WORK SPECIFIED ELSEWHERE:

A. **Respiratory Protection:** is specified in Section “Respiratory Protection”.

1.4 WORKER TRAINING:

A. **AHERA Accreditation:** All workers are to be accredited as Abatement Workers as required by the EPA Model Accreditation Plan (MAP) asbestos abatement worker training (40 CFR Part 763, Subpart E, Appendix C).

B. **State and Local License:** All workers are to be trained, certified and accredited as required by state or local code or regulation.

C. **Training:** Provide training for all workers that is the equivalent in curriculum, training method and length to the EPA Model Accreditation Plan (MAP) asbestos abatement worker training (40 CFR Part 763, Subpart E, Appendix C).

1.5 MEDICAL SURVEILLANCE:

A. **Provide a medical surveillance program** as required in the OSHA standard (29 CFR 1926.1101).

B. **Provide a medical surveillance program** and physician’s opinion before a respirator is assigned as required by 29 CFR 1910.134 and 29 CFR 1926.103(e)(10) .

C. **Provide medical examination** that as a minimum meets OSHA requirements as set forth in 29 CFR 1926.1101. In addition, require that the physician provide an evaluation of the individual’s ability to work in environments capable of producing heat stress in the worker.

1.6 SUBMITTALS:

A. **Before Start of Work:** Submit the following to the Designer for review. Do not start work until these submittals are returned with Designer's action stamp indicating that the submittal is returned for unrestricted use.

1. **AHERA Accreditation:** Submit copies of certificates from an EPA-approved AHERA Abatement Workers course for each worker as evidence that each asbestos Abatement Worker is accredited as required by the EPA Interim Final Model Accreditation Plan (MAP) asbestos abatement worker training (40 CFR Part 763, Subpart E, Appendix C).

2. **State and Local License:** Submit evidence that all workers have been trained, certified and accredited as required by state or local code or regulation.

3. **Certificate Worker Acknowledgment:** Submit an original signed copy of the Certificate of Worker's Acknowledgment found at the end of this section, for each worker who is to be at the job site or enter the Work Area.

4. **Report from Medical Examination:** conducted within last 12 months as part of compliance with OSHA medical surveillance requirements for each worker who is to enter the Work Area. Submit, at a minimum, for each worker the following:

   a. Name
   b. The physician's written opinion as to whether the employee has any detected medical conditions that would place the employee at an increased risk of material health impairment from exposure to asbestos;

   c. Any recommended limitations on the employee or on the use of personal protective equipment such as respirators; and

   d. A statement that the employee has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.

   e. A statement that the employee has been informed by the physician of the increased risk of lung cancer attributable to the combined effect of smoking and asbestos exposure (29 CFR 1926.1101(m)).

   f. A legible typed version of the physician’s name, the physician’s signature, and date of examination.

4. **Notarized Certifications:** Submit certification signed by an officer of the abatement contracting firm that exposure measurements, medical surveillance, and worker training records are being kept in conformance with 29 CFR 1926.

PART 2 - EQUIPMENT

2.1 PROTECTIVE CLOTHING:

A. **General.** Provide and require the use of protective clothing, such as coveralls or similar whole-body clothing, head coverings, gloves, and foot coverings for any employee exposed to airborne concentrations of asbestos that exceed the TWA and/or excursion limit prescribed by 29 CFR 1926.1101 or for which a required negative exposure assessment is not produced, and for any employee performing Class I operations which involve the removal of over 25 linear or 10 square feet (7.5 linear meters or 3 square meters) of TSI or surfacing ACM or PACM.

B. **Coveralls:** Provide disposable full-body coveralls and disposable head covers, and require that they be worn by all workers in the Work Area. Provide a sufficient number for all required changes, for all workers in the Work Area.

C. **Coveralls:** Provide cloth full-body coveralls and hats, require that they be worn by all workers in the Work Area. Require that workers change out of coverall in the Equipment Room of the Personnel Decontamination Unit. Dispose of coverall as asbestos waste at completion of all work.

D. **Additional Protective Clothing:** Provide each worker with the protective clothing as required by Federal State and local regulations. This includes, but is not necessary limited by Hardhats, Cold weather gear, Glove, boots and goggles.

E. **Cold Weather Gear:** Provide each worker with an insulated jacket, pants, gloves, and hat. Require that cold weather gear be removed in Equipment Room of Personnel Decontamination Unit. Dispose of cold weather gear as asbestos waste at completion of all work.

F. **Boots:** Provide work boots with non-skid soles, and where required by OSHA, foot protectives, for all workers. Provide boots at no cost to workers. Paint uppers of all
boots red with waterproof enamel. Do not allow boots to be removed from the Work Area for any reason, after being contaminated with ACM. Dispose of boots as asbestos-contaminated waste at the end of the work.

G. **Hard Hats:** Provide head protectives (hard hats) as required by OSHA for all workers, and provide 4 spares for use by Designer, Project Administrator, and Owner. Label hats with same warning labels as used on disposal bags. Require hard hats to be worn at all times that work is in progress that may potentially cause head injury. Provide hard hats of type with plastic strap type suspension. Require hats to remain in the Work Area throughout the work. Thoroughly clean, decontaminate and bag hats before removing them from Work Area at the end of the work.

H. **Goggles:** Provide eye protection (goggles) as required by OSHA for all workers involved in scraping, spraying, or any other activity which may potentially cause eye injury. Thoroughly clean, decontaminate and bag goggles before removing them from Work Area at the end of the work.

I. **Gloves:** Provide work gloves to all workers and require that they be worn at all times in the Work Area. Do not remove gloves from Work Area and dispose of as asbestos-contaminated waste at the end of the work.

2.2 ADDITIONAL PROTECTIVE EQUIPMENT:

A. Disposable coveralls, head covers, and footwear covers shall be provided by the Contractor for the Owner, Designer, Project Administrator, and other authorized representatives who may inspect the job site. Provide six (6) complete coveralls per day.

PART 3 - EXECUTION

3.1 GENERAL:

A. Provide worker protection as required by the most stringent OSHA and/or EPA standards applicable to the work. The following procedures are minimums to be adhered to regardless of fiber count in the Work Area.

B. Each time Work Area is entered remove all street clothes in the Changing Room of the Personnel Decontamination Unit and put on new disposable coverall, new head cover, and a clean respirator. Proceed through shower room to equipment room and put on work boots.

3.2 DECONTAMINATION PROCEDURES:

A. Require all workers to adhere to the following personal decontamination procedures whenever they leave

the Work Area:

1. Type C Supplied Air or Powered Air-Purifying Respirators: Require that all workers use the following decontamination procedure as a minimum requirement whenever leaving the Work Area:

a. When exiting area, remove disposable coveralls, disposable head covers, and disposable footwear covers or boots in the equipment room.

b. Still wearing respirators, proceed to showers. Showering is mandatory. Care must be taken to follow reasonable procedures in removing the respirator to avoid asbestos fibers while showering. The following procedure is required as a minimum:

c. Thoroughly wet body including hair and face. If using a Powered Air-Purifying Respirator (PAPR) hold blower unit above head to keep canisters dry.

d. With respirator still in place thoroughly wash body, hair, respirator face piece, and all parts of the respirator except the blower unit and battery pack on a PAPR. Pay particular attention to seal between face and respirator and under straps.

e. Take a deep breath, hold it and/or exhale slowly, completely wet hair, face, and respirator. While still holding breath, remove respirator and hold it away from face before starting to breathe.

f. Carefully wash facepiece of respirator inside and out.

2. If using PAPR: shut down in the following sequence, first cap inlets to filter cartridges, then turn off blower unit (this sequence will help keep debris which has collected on the inlet side of filter from dislodging and contaminating the outside of the unit). Thoroughly wash blower unit and hoses. Carefully wash battery pack with wet rag. Be extremely cautious of getting water in battery pack as this will short out and destroy battery.

a. Shower completely with soap and water.

b. Rinse thoroughly.

c. Rinse shower room walls and floor prior to exit.

d. Proceed from shower to Changing Room and change into street clothes or into new disposable work items.

3. Air Purifying-Negative Pressure Respirators: Require that all workers use the following decontamination procedure as a minimum requirement whenever leaving the Work Area with a half or full face cartridge type respirator:

a. When exiting area, remove disposable coveralls, disposable head-covers, and disposable footwear covers or boots in the Equipment Room.

b. Still wearing respirators, proceed to showers. Showering is mandatory. Care must be taken to follow reasonable procedures in removing the respirator and filters to avoid asbestos fibers while showering. The following procedure is required as a minimum:

c. Thoroughly wet body from neck down.

d. Wet hair as thoroughly as possible without wetting the respirator filter if using an air purifying type respirator.

e. Take a deep breath, hold it and/or exhale slowly, complete wetting of hair, thoroughly wetting face, respirator and filter (air purifying respirator). While still holding breath, remove respirator and hold it away from face before starting to breathe.

f. Dispose of wet filters from air purifying respirator.

g. Carefully wash facepiece of respirator inside and out.

h. Shower completely with soap and water.

i. Rinse thoroughly.

j. Rinse shower room walls and floor prior to exit.

k. Proceed from shower to Changing Room and change into street clothes or into new disposable work items.

B. Remote Shower: The procedures above are to be used if the decontamination facility is used as a remote shower. If a worker cannot gain direct access to the Equipment Room require that he enter Decontamination Unit and proceed directly through Shower Room to Equipment Room. Decontamination procedure is then completed as required above.

C. Within Work Area:

1. Require that workers NOT eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the Work Area. To eat, chew, drink or smoke, workers shall follow the procedure described above, then dress in street clothes before entering the non-Work Areas of the building.

3.3 CERTIFICATE OF WORKER'S ACKNOWLEDGEMENT:

Following this section is a Certificate of Worker Training. After each worker has been included in the Contractor's Respiratory Protection Program, completed the training program and medical examination, secure a fully executed copy of this form.

END OF SECTION - 02 80 44

CERTIFICATE OF WORKER'S ACKNOWLEDGEMENT

PROJECT NAME _____ DATE _____

PROJECT ADDRESS _____

CONTRACTOR'S NAME _____

WORKING WITH ASBESTOS CAN BE DANGEROUS. INHALING ASBESTOS FIBERS HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner for the above project requires that: You be supplied with the proper respirator and be trained in its use. You be trained in safe work practices and in the use of the equipment found on the job. You receive a medical examination. These things are to have been done at no cost to you.

RESPIRATORY PROTECTION: You must have been trained in the proper use of respirators, and informed of the type respirator to be used on the above referenced project. You must be given a copy of the written respiratory protection manual issued by your employer. You must be equipped at no cost with the respirator to be used on the above project.

TRAINING COURSE: You must have been trained in the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and area protective measures. This training must have been the equivalent in curriculum, training method and length to the EPA Model Accreditation Plan (MAP) asbestos abatement worker training (40 CFR Part 763, Subpart E, Appendix C).

MEDICAL EXAMINATION: You must have had a medical examination within the past 12 months at no cost to you. This examination must have included: health history, pulmonary function tests and may have included an evaluation of a chest x-ray.

By signing this document you are acknowledging only that the Owner of the building you are about to work in has advised you of your rights to training and protection relative to your employer.

Signature _____ Employee Number _____

Printed Name _____ Witness _____

SECTION 02 80 45 - RESPIRATORY PROTECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. **Drawings and general provisions of Contract**, including General and Supplementary Conditions and other Division-2 Specification Sections, apply to work of this section.

1.2 DESCRIPTION OF WORK:

A. **Instruct and train each worker** involved in asbestos abatement or maintenance and repair of friable asbestos-containing materials (ACM) in proper respiratory use and require that each worker always wear a respirator, properly fitted on the face in the Work Area from the start of any operation which may cause airborne asbestos fibers until the Work Area is completely decontaminated. Use respiratory protection appropriate for the fiber level encountered in the work place or as required for other toxic or oxygen-deficient situations encountered.

1.3 DEFINITIONS:

A. "Negative Pressure Respirator": A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.

B. "Protection Factor": The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator at the breathing zone of the wearer. The protection factor is a measure of the degree of protection provided by a respirator to the wearer.

C. "Respirator": A device designed to protect the wearer from the inhalation of harmful atmospheres.

1.4 STANDARDS:

A. **Except to the extent** that more stringent requirements are written directly into the Contract Documents, the latest edition of the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in requirements set forth in these regulations and standards, meet the more stringent requirement.

1. **OSHA** - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards Section 29 CFR 1910.1001, Section 1910.134, and Section 29 CFR 1926.1101.

2. **CGA** - Compressed Gas Association, Inc., New York, Pamphlet G-7, "Compressed Air for Human Respiration", and Specification G-7.1 "Commodity Specification for Air".

3. **CSA** -Canadian Standard Association, Rexdal, Ontario, Standard Z180.1, "Compressed Breathing Air".

4. **ANSI** - American National Standard Practices for Respiratory Protection, ANSI Z88.2.

5. **NIOSH** - National Institute for Occupational Safety and Health
   - NIOSH Respirator Decision Logic (May 1987) DHHS/NIOSH Publication No. 87-108;
   - NIOSH/EPA, "A Guide to Respiratory Protection for the Asbestos Abatement Industry" EPA-560-OPTS-86-001 (September 1986);
   - 42 CFR 84, NIOSH Standard for Certification of Non-Powered Air Purifying Respirator filters;
   - 30 CFR 11, NIOSH - Certification of Respirators

6. **MSHA** - Mine Safety and Health Administration

1.5 SUBMITTALS:

A. **Before Start of Work** submit the following to the Designer for review. Do not begin work until these submittals are returned with the Designer's action stamp indicating that the submittal is returned for unrestricted use.

1. **Product Data:** Submit manufacturer's product information for each component used, including NIOSH and MSHA Certifications for each component in an assembly and/or for entire assembly.

2. **System Diagram:** When a supplied air respiratory system is required by the work, submit drawing showing assembly of components into a complete supplied air respiratory system. Include diagram showing location of compressor, filter banks, backup air supply tanks, hose line connections in Work Area(s), routing of air lines to Work Area(s) from compressor.

3. **Operating Instruction:** Submit complete operating and maintenance instructions for all components and systems as a whole. Submittal is to be in bound manual form suitable for field use.

4. **Respiratory Protection Program:** Submit Contractor's written respiratory protection program manual as required by OSHA 1926.1101.

5. **Initial Exposure Assessment**: Submit level of respiratory protection intended for each operation required by the project. Base this selection on an "Initial Exposure Assessment" as required by OSHA 29 CFR 1926.1101. Submit information to support this "Initial Exposure Assessment" on the form included at the end of this Section.
   a. Submit data from exposure monitoring for the PEL and EL from prior asbestos jobs within 12 months;

   b. Submit monitoring and analysis that were performed in compliance with the OSHA asbestos standard in effect;

   c. Submit data that was obtained under workplace conditions "closely resembling" those that will exist during the Work;

   d. Submit data from past asbestos jobs where the type of asbestos abatement and other work, material, control methods, work practices, and environmental conditions closely resemble those that will exist during the Work;

   e. Submit exposure date from prior asbestos jobs where the work that was conducted by employees whose training and experience are no more extensive than that of employees performing the current job;

   f. Based on the exposure data from the previous asbestos jobs, select respiratory protection for

the Work that will, to a high degree of certainty, prevent worker exposures (inside the respirator) that exceed the Permissible Exposure Limits (PEL) set forth in this Section of the specifications.

6. **Resume information:** Submit resume and information on training for individual monitoring the operation of supplied air respiratory systems. Submit training certifications where applicable.

1.6 AIR QUALITY FOR SUPPLIED AIR RESPIRATORY SYSTEMS:

A. **Provide air** used for breathing in supplied air respiratory systems that meets or exceeds standards set for C.G.A. type 1 (Gaseous Air) Grade H or CSA Z180.1 whichever presents the more stringent quality standard:

1.7 ALLOWABLE CONTAMINANTS:

A. **Supply air** that has an asbestos concentration no greater than outside ambient conditions.
B. **Supply air** that meets the level of contaminants allowed according to the air quality standard specified.
C. **The table below** sets forth the quantity of any given contaminant allowed according to the referenced standards:

CONTAMINANT	CGA Type 1 (Gaseous Air) Grade D	Grade E	Grade H	CSA Z180.1
Carbon Monoxide, PPM/v	20	10	5	5
Carbon Dioxide, PPM/v	1000	500	500	500
Condensed Hydrocarbons, mg./cu. meter	5	5		1
Gaseous Hydrocarbons - as methane, PPM/v			10	25
Water Vapor - PPM/v	(1)	(1)	(1)	27
dewpoint	-50F	-50F	-50F	-63F
Objectionable Odors	None	None	None	None
Nitrogen Dioxide, PPM/v	—	—	0.5	0.2
Nitrous Oxide, PPM/v	—	—	—	5
Sulfur Dioxide, PPM/v	—	—	0.5	—
Halogenated solvents, PPM/v	—	—	1	—
Other gaseous contaminants	—	—	—	(2)
Inorganic particulates, mg./cu. meter	—	—	—	1

— Indicates that the standard shows no limiting characteristics

(1) The CGA standards do not indicate a specific moisture limit when the ambient temperature is above

freezing. However, since a moisture content no greater than a -50 Degrees Fahrenheit (-45.56 Degrees Celsius) dewpoint (66 PPM/v) is necessary for carbon monoxide elimination, the CO limits could not be met unless the air were dried to a -50 Degrees Fahrenheit (-45.56 Degrees Celsius) dewpoint or better.

(2) Maximum allowable content of trichlorotrifluoroethane, dichlorodifluoromethane, and chlorodifluoromethane is 2 PPM/v for each. Unlisted contaminants shall not exceed one-tenth of the Threshold Limit Values (TLV's) for Chemical Substances in Workroom air adopted by the American Conference of Governmental Industrial Hygienists (ACGIH).

1.8 DELIVERY:

A. Deliver replacement parts, etc., not otherwise labeled by NIOSH or MSHA to job site in manufacturer's containers.

PART 2 - EQUIPMENT

2.1 AIR PURIFYING RESPIRATORS

A. Respirator Bodies: Provide half face or full face type respirators. Equip full face respirators with a nose cup or other anti-fogging device as would be appropriate for use in air temperatures less than 32 degrees Fahrenheit (0 degrees Celsius).

B. Filter Cartridges: Provide, at a minimum, HEPA type filters labeled with NIOSH and MSHA Certification for "Radionuclides, Radon Daughters, Dust, Fumes, Mists including Asbestos-Containing Dusts and Mists" and color coded in accordance with 42 CFR Part 84 and ANSI Z228.2. Also, additional cartridge sections may be added, if required, for solvents, etc., in use. In this case, provide cartridges that have each section of the combination canister labeled with the appropriate color code and NIOSH/MSHA Certification.

C. Non-permitted respirators. Do not use single use, disposable or quarter face respirators.

2.2 SUPPLIED AIR RESPIRATOR SYSTEMS:

A. Provide equipment capable of producing air of the quality and volume required by the above reference standards applied to the job site conditions and crew size. Comply with provisions of this specification if more stringent than the governing standard.

B. Facepiece and Hose: Provide full facepiece and hose by same manufacturer that has been certified by NIOSH/MSHA as an approved Type "C" respirator assembly operating in pressure demand mode with a positive pressure facepiece.

C. Auxiliary backup system: In atmospheres which contain sufficient oxygen (greater than or equal to 19.5 percent oxygen) provide a pressure-demand full facepiece supplied air respirator equipped with an emergency back up HEPA filter.

D. Escape air supply: In atmospheres which are oxygen deficient (less than 19.5 percent oxygen) provide a pressure-demand full facepiece supplied air respirator incorporating an auxiliary self-contained breathing apparatus (SCBA) which automatically maintains an uninterrupted air supply in pressure demand mode with a positive pressure face piece.

E. Backup air supply: Provide a reservoir of compressed air located outside the Work Area which will automatically maintain a continuous uninterruptable source of air automatically available to each connected facepiece and hose assembly in the event of compressor shut-down, contamination of air delivered by

compressor, power loss or other failure. Provide sufficient capacity in the back-up air supply to allow a minimum escape time of one-half hour times the number of connections available to the Work Area. Air requirement at each connection is the air requirement of the respirators in use plus the air requirement of an average-sized adult male engaged in moderately strenuous activity.

F. **Warning device:** Provide a warning device that will operate independently of the building's power supply. Locate so that alarm is clearly audible above the noise level produced by equipment and work procedures in use, in all parts of the Work Area and at the compressor. Connect alarm to warn of:

1. Compressor shut down or other fault requiring use of backup air supply

2. Carbon Monoxide (CO) levels in excess of 5 PPM/V

G. **Carbon Monoxide (CO) Monitor:** Continuously monitor and record on a strip chart recorder Carbon Monoxide (CO) levels. Place monitors in the air line between compressor and back-up air supply and between backup air supply and workers. Connect monitors so that they also sound an alarm as specified under "Warning Devices".

H. **Compressor Shut Down:** Interconnect monitors, alarms and compressor so that compressor is automatically shut down and the alarms sound if any of the following occur:

1. Carbon Monoxide (CO) concentrations exceed 5 PPM/v in the air line between the filter bank and backup air supply

2. Compressor temperature exceeds normal operating range

I. **Compressor Motor:** Provide a compressor driven by an electric motor. Do not use a gas or diesel engine to drive compressor. Insure that electrical supply available at the work site is adequate to energize motor.

J. **Compressor Location:** Locate compressor outside of building in location that will not impede access to the building, and that will not cause a nuisance by virtue of noise or fumes to occupied portions of the building.

K. **Air Intake:** Locate air intake remotely from any source of automobile exhaust or any exhaust from engines, motors, auxiliary generator or buildings.

L. **After-Cooler:** Provide an after-cooler at entry to filter system which is capable of reducing temperatures to outside ambient air temperatures.

M. **Self Contained Breathing Apparatus (SCBA):** Configure system to permit the recharging of ½ hour 2260 PSI (15.58 MPa) SCBA cylinders.

PART 3 - EXECUTION

3.1 GENERAL:

A. **Respiratory Protection Program:** Comply with ANSI Z88.2 "Practices for Respiratory Protection" and OSHA 29 CFR 1910.314 and 1926.103.

B. **Require** that respirators be used in the following circumstances:

1. During all Class I asbestos jobs.

2. During all Class II work where the ACM is not removed in a substantially intact state.

3. During all Class II and III work, which is not performed using wet methods.

4. During all Class II and III asbestos jobs where the employer does not produce a "negative exposure assessment".

5. During all Class III jobs where TSI or surfacing ACM or PACM is being disturbed.

6. During all Class IV work performed within regulated areas where employees performing other work are required to wear respirators.

7. During all work covered by this section where employees are exposed above the OSHA PEL (TWA, or excursion limit).

8. In emergencies. During emergencies where the airborne asbestos fiber concentration is not known, a self-contained breathing apparatus (SCBA) must be used.

C. **Require** that respiratory protection be used at all times that there is any possibility of disturbance of ACM whether intentional or accidental.

D. **Require** that a respirator be worn by anyone in a Work Area at all times, regardless of activity, during a period that starts with any operation which could cause airborne fibers until the area has been cleared for re-occupancy in accordance with Section “Project Decontamination”.

E. **Regardless of Airborne Fiber Levels:** Require that the minimum level of respiratory protection used be half-face air-purifying respirators with high efficiency filters.

F. **Do not allow** the use of single-use, disposable, or quarter-face respirators for any purpose.

3.2 FIT TESTING:

A. **Initial Fitting:** Provide initial fitting of respiratory protection during a respiratory protection course of training set up and administered by a individual qualified to do fit testing. Fit types and sizes of respirator to be actually worn by each individual. Allow an individual to use only those respirators for which training and fit testing has been provided.

B. **On a Weekly Basis,** check the fit of each worker's respirator by having irritant smoke blown onto the respirator from a smoke tube.

C. **Upon Each Wearing:** Require that each time an air-purifying respirator is put on it be checked for fit with a positive and negative pressure fit test in accordance with the manufacturer's instructions or ANSI Z88.2.

3.3 TYPE OF RESPIRATORY PROTECTION REQUIRED:

A. **General:** After reducing airborne asbestos levels to the lowest feasible level with engineering controls and

work practices, provide respiratory protection as necessary to ensure that workers are not exposed to an airborne concentration of asbestos in excess of the Specified Permissible Exposure Limits (SPEL) set forth in this Section.

B. **Level of Respiratory Protection:** Determine the proper level of respiratory protection by dividing the expected or actual airborne fiber count in the Work Area by the "protection factors" given below. The level of respiratory protection which supplies an airborne fiber level inside the respirator, at the breathing zone of the wearer, at or below the Specified Permissible Exposure Limits (PEL) set forth in this Section is the minimum level of protection allowed.

C. **Specific Respiratory Protection Requirements:** Provide respiratory protection as indicated below as a minimum requirement:

1. **Half-face Negative Pressure Air-Purifying Respirators:** Provide half-face negative pressure air-purifying respirators during installation of Critical or Primary Barriers or other activities where there has been an “Initial Exposure Assessment” that has determined that airborne asbestos fiber levels will not exceed 0.1 fiber per cubic centimeter (0.1 f/cc). Provide a PAPR where a half-face negative pressure air-purifying respirator is allowed to any worker who so requests.

2. **Powered Air-Purifying Respirators (PAPR):** Provide powered air-purifying respirators (PAPR) during removal of asbestos-containing thermal system insulation (TSI) or surfacing material where there has been an “Initial Exposure Assessment” that has determined that airborne asbestos fiber levels will not exceed 1.0 fiber per cubic centimeter (1.0 f/cc).

3. **Type "C" Supplied-air respirators:** full facepiece pressure demand supplied air respirators are to be used by all workers engaged in the removal of thermal system insulation (TSI) or surfacing materials, or demolition of pipes, structures, or equipment covered or insulated with asbestos, or in the removal or demolition of asbestos insulation or coverings, or any other activity which results in or may result in airborne asbestos fiber levels above 1.0 fibers per cubic centimeter (1.0 f/cc).

D. **Provide** a full facepiece supplied air respirator operated in the pressure demand mode equipped with an auxiliary positive pressure self-contained breathing apparatus for all workers within a regulated area where Class I work is being performed and for which an initial exposure assessment has not been produced. After an initial exposure assessment is made, use the level of respiratory protection required by that assessment and requirements of this specification and the OSHA Asbestos Construction Standard 29 CFR 1926.1101.

3.4 SPECIFIED PERMISSIBLE EXPOSURE LIMITS (SPEL):

A. **Specified Permissible Exposure Limits (SPEL):** Ensure that no worker is exposed to an airborne concentration of asbestos in excess of the Time-Weighted Average (TWA) limit, and Excursion Limit (EL) set forth below.

1. **Time Weighted Average (TWA) limit** - Concentration of airborne asbestos fibers to which any worker may be exposed as an eight (8) hour time-weighted average (TWA) shall not exceed the following.

a. 0.01 fibers per cubic centimeter

2. **Excursion Limit (EL)** - Concentration of airborne asbestos fibers to which any worker may be exposed as averaged over a sampling period of thirty (30) minutes shall not exceed the following.

a. 0.01 fibers per cubic centimeter

B. **Fibers:** For purposes of this section, fibers are defined as all fibers regardless of composition as counted in the OSHA Reference Method (ORM), or NIOSH 7400 procedure.

1. Electron Microscopy: If Electron Microscopy is used to determine airborne fiber levels, only asbestos fibers will be enumerated, but fibers of any size detected by the testing of Section 01711 Project Decontamination will be counted.

3.5 RESPIRATORY PROTECTION FACTOR:

A.	Respirator Type	Protection Factor
1.	**Air purifying:** Negative pressure respirator High efficiency filter Half facepiece	10
2.	**Air purifying:** Negative pressure respirator High efficiency filter Full facepiece	50
3.	**Powered Air Purifying (PAPR):** Positive pressure respirator High efficiency filter Half facepiece	50
4.	**Powered air-purifying respirator** equipped with high efficiency filters or any supplied air respirator operated in continuous flow mode. Full facepiece	100
5.	**Supplied air:** Positive pressure respirator Pressure demand or other positive pressure mode Full facepiece Equipped with an auxiliary HEPA cartridge or positive pressure Self-contained breathing apparatus (SCBA) for escape	1,000

3.6 AIR PURIFYING RESPIRATORS:

A. **Negative pressure - half or full face mask:** Supply a sufficient quantity of respirator filters approved for asbestos, so that workers can change filters during the work day. Require that respirators be wet-rinsed, and filters discarded, each time a worker leaves the Work Area. Require that new filters be installed each time a worker re-enters the Work Area. Store respirators and filters at the job site in the changing room and protect totally from exposure to asbestos prior to their use.

B. **Powered air purifying - half or full face mask:** Supply a sufficient quantity of high efficiency respirator filters approved for asbestos so that workers can change filters at any time that flow through the facepiece decreases to the level at which the manufacturer recommends filter replacement. Require that regardless of flow, filter cartridges be replaced after 40 hours of use. Require that HEPA elements in filter cartridges be protected from wetting during showering. Require entire exterior housing of respirator, including blower unit, filter cartridges, hoses, battery pack, face mask, belt, and cords, be washed each time a worker leaves the Work Area. Caution should be used to avoid shorting battery pack during washing. Provide an extra battery pack for each respirator so that one can be charging while one is in use.

3.7 SUPPLIED AIR RESPIRATOR:

A. **Air Systems Monitor:** Continuously monitor the air system operation including compressor operation, filter system operation, backup air capacity and all warning and monitoring devices at all times that system is in operation. Assign an individual, trained by manufacturer of the equipment in use or by a Certified Industrial Hygienist, in the operation and maintenance of the system to provide this monitoring. Assign no other duties to this individual that will take him away from monitoring the air system.

END OF SECTION - 02 80 45

INITIAL EXPOSURE ASSESSMENT

Project No:_____ Date:_____
Project Name:_____ Facility:_____
Work Area(s):_____
Reference Job:_____
Description of Work:_____

Asbestos Containing Materials Asbestos/Type Percentage

_____ _____
_____ _____

Task	Personal Monitoring Level High	Low	Average	Respirator Worn	Comments
Prep / Set up					
Removal of Surface Trt					
Removal of TSI					
Removal of Misc Mat.					
Bag Out					
Clean Up					
Other					

Experience Level of Work Force _____
Reference Job: _____
Description of Work: _____

Asbestos Containing Materials Asbestos/Type Percentage

_____ _____
_____ _____

Task	Personal Monitoring Level High	Low	Average	Respirator Worn	Comments
Prep / Set up					
Removal of Surface Trt					
Removal of TSI					
Removal of Misc Mat.					
Bag Out					
Clean Up					
Other					

Experience Level of Work Force _____
_____

Expected Conditions of This Job

Task	Anticipated Level		Respirator	Comments
Prep / Set up		f/cc		
Removal of Surface Trt		f/cc		
Removal of TSI		f/cc		
Removal of Misc Mat.		f/cc		
Bag Out		f/cc		
Clean Up		f/cc		
Other		f/cc		

Experience Level of Work Force _____

SECTION 02 80 46 - DECONTAMINATION UNITS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. **Drawings and general provisions of Contract**, including General and Supplementary Conditions and other Division-2 Specification sections, apply to work of this section.

1.2 DESCRIPTION OF WORK:

A. **Provide separate Personnel and Equipment Decontamination facilities**. Require that the Personnel Decontamination Unit be the only means of ingress and egress for the Work Area. Require that all materials exit the Work Area through the Equipment Decontamination Unit.

1.3 RELATED WORK SPECIFIED ELSEWHERE:

A. **Refer to Section "Temporary Facilities"** - Asbestos Abatement for electrical requirements and requirements relative to connection of decontamination facilities to building systems such as water, sewer, and electrical.

1.4 SUBMITTALS

A. **Before the Start of Work:** Submit the following to the Designer for review. Do not begin work until these submittals are returned with Designer's action stamp indicating that the submittal is returned for unrestricted use or final-but-restricted use.

1. Personnel Decontamination Unit: Provide shop drawing showing location and assembly of personnel decontamination units.
2. Equipment Decontamination Unit: Provide shop drawing showing location and assembly of equipment decontamination units.
3. Shower Pan: Provide shop drawing.
4. Shower Walls: Provide product data.
5. Shower Head and Controls: Provide product data.
6. Filters: Provide product data and shop drawing of installation on decontamination unit.
7. Hose Bib: Provide product data.
8. Shower Stall: for Wash Down Station provide product data and shop drawing showing and modifications.
9. Elastomeric membrane: Provide product data.
10. Lumber: Provide product data on fire resistance treatment.
11. Sump Pump: Provide product data.
12. Signs: Submit samples of signs to be used.

PART 2 - PRODUCTS

2.1 MATERIALS

A. **Polyethylene Sheet:** A single polyethylene film in the largest sheet size possible to minimize seams, 6.0 mil (0.15 mm) thick , clear, frosted, or black as indicated.

B. **Polyethylene Sheet:** Provide flame resistant polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films. Provide largest size possible to minimize seams, 6.0 mil (0.15 mm) thick, frosted or black as indicated.

C. **Reinforced Polyethylene Sheet:** Where plastic sheet is the only separation between the Work Area and building exterior, provide translucent, nylon reinforced, laminated, flame resistant, polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films. Provide largest size possible to minimize seams, 6.0 mil (0.15 mm) thick , frosted or black as indicated.

D. **Duct Tape:** Provide duct tape in 2 inch or 3 inch (51mm or 76 mm) widths as indicated, with an adhesive which is formulated to stick aggressively to sheet polyethylene.

E. **Spray Adhesive:** Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.

F. **Shower Pan:** Provide one-piece waterproof shower pan 4 feet x 8 feet x 6 inches deep (102 mm X 204 mm x 152 mm deep). Fabricate from seamless fiberglass minimum 1/16 inch (1.59 mm) thick reinforced with wood, 18 ga. stainless or galvanized steel with welded seems, copper or lead with soldered seams, or a seamless liner of minimum 60 mil (1.5 mm) thick elastomeric membrane.

G. **Shower Walls:** Provide 8 feet (2.44 m) long by approximately 7 feet (2.13 m) high walls fabricated from rigid, impervious, waterproof material, either corrugated fiberglass roofing or equivalent. Structurally support as necessary for stability.

H. **Shower Head and Controls:** Provide a factory-made shower head producing a spray of water which can be adjusted for spray size and intensity. Feed shower with water mixed from hot and cold supply lines. Arrange so that control of water temperature, flow rate, and shut off is from inside shower without outside aid.

I. **Filters:** Provide cascaded filter units on drain lines from showers or any other water source carrying asbestos-contaminated water from the Work Area. Provide units with disposable filter elements as indicated below. Connect so that discharged water passes primary filter and output of primary filter passes through secondary filter.

1. Primary Filter - Passes particles 20 microns and smaller
2. Secondary Filter - Passes particles 5 microns and smaller

J. **Hose Bib:** Provide heavy bronze angle type with wheel handle, vacuum breaker, and 3/4 inch (19.05 mm) National Standard male hose outlet.

K. **Shower Stall:** For Wash Down Station provide leak tight shower enclosure with integrated drain pan fabricated from fiberglass or other durable waterproof material, approximately 3 feet x 3 feet (0.91m x 0.91

m) square with minimum 6 feet (1.83 m) high sides and back. Structurally support as necessary for stability. Equip with hose bib, as specified in this section, mounted at approximately 4 feet (1.22 m) above drain pan. Connect drain to a reservoir, pump water from reservoir through filters to a drain or store and use for amended water. Mount filters inside shower stall on back wall beneath hose bib.

L. **Elastomeric membrane:** Provide uniform flat sheets of flexible sheet roofing material fabricated from EPDM (ethylene propylene diene monomers) or Neoprene (polychloroprene), in a nominal 45 mil (1.14 mm) thickness.

M. **Lumber:** Provide kiln dried lumber of any grade or species.

N. **Sump Pump:** Provide totally submersible waterproof sump pump with integral float switch. Provide unit sized to pump 2 times the flow capacity of all showers or hoses supplying water to the sump, through the filters specified herein when they are loaded to the extent that replacement is required. Provide unit capable of pumping debris, sand, plaster or other materials washed off during decontamination procedures without damage to mechanism of pump. Adjust float switch so that a minimum of 3 inch (76 mm) remains between top of liquid and top of sump pan.

PART 3 - EXECUTION

3.1 PERSONNEL DECONTAMINATION UNIT:

A. **Provide a Personnel Decontamination Unit** consisting of a serial arrangement of connected rooms or spaces, Changing Room, Drying Room, Shower Room, Equipment Room. Require all persons without exception to pass through this Decontamination Unit for entry into and exiting from the Work Area for any purpose. Do not allow parallel routes for entry or exit. Do not remove equipment or materials through Personnel Decontamination Unit. Provide temporary lighting within Decontamination Units as necessary to reach a lighting level of 100 foot candles (1076 lumens / sq meter).

B. **Changing Room (clean room):** Provide a room that is physically and visually separated from the rest of the building for the purpose of changing into protective clothing.

1. Construct using polyethylene sheeting, at least 6 mil (0.15 mm) in thickness, to provide an airtight seal between the Changing Room and the rest of the building.
2. Locate so that access to Work Area from Changing Room is through Shower Room.
3. Separate Changing Room from the building by a sheet plastic flapped doorway.
4. Require workers to remove all street clothes in this room, dress in clean, disposable coveralls, and don respiratory protection equipment. Do not allow asbestos-contaminated items to enter this room. Require Workers to enter this room either from outside the structure dressed in street clothes, or naked from the showers.
5. An existing room may be utilized as the Changing Room if it is suitably located and of a configuration whereby workers may enter the Changing Room directly from the Shower Room. Protect all surfaces of room with sheet plastic as set forth in Section 01526 Temporary Enclosures. Authorization for this must be obtained from the Designer in writing prior to start of construction. Submit written request in accordance with Section 01632 "Substitutions" detailing layout and protective measures proposed.
6. Maintain floor of changing room dry and clean at all times. Do not allow overflow water from shower to wet floor in changing room.
7. Damp wipe all surfaces twice after each shift change with a disinfectant solution.
8. Provide posted information for all emergency phone numbers and procedures.
9. Provide 1 storage locker per employee.
10. Provide all other components indicated on the contract drawings.

C. Airlock: Provide an airlock between Drying Room and Changing Room. This is a transit area for workers.

1. Separate this room from Drying Room and Changing Room by sheet plastic flapped doorways.
2. Separate this room from the rest of the building with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.
3. Separate this room from the Drying and Changing Rooms with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.

D. Drying Room: Provide a drying room as an airlock and a place for workers to dry after showering.

1. Construct room by providing a pan continuous with or draining to Shower Room pan. Install a freely draining wooden or non-skid metal floor in pan at elevation of top of pan.
2. Separate this room from the rest of the building with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.
3. Separate this room from the Changing Room and Shower Room with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.
4. Separate from Changing Room by a sheet plastic flapped doorway.
5. Provide a continuously adequate supply of disposable bath towels.
6. Provide a rigid, tight-sealing hinged door between Drying Room and Clean Room. Arrange so that there is a sensible movement of air from clean room through breathing zone of worker in Shower and Drying Room toward Equipment Room.

E. Shower Room: Provide a completely watertight operational shower to be used for transit by cleanly dressed workers heading for the Work Area from the Changing Room, or for showering by workers headed out of the Work Area after undressing in the Equipment Room.

1. Construct room by providing a shower pan and 2 shower walls in a configuration that will cause water running down walls to drip into pan. Install a freely draining wooden floor in shower pan at elevation of top of pan.
2. Separate this room from the rest of the building with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.
3. Separate this room from the Drying Room and Airlock with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.
4. Provide splashproof entrances to Drying Room and Airlock with doors arranged in the following configuration:
   a. At each entrance to the Shower Room construct a door frame out of nominal 2 inch x 4 inch (51 mm X 102 mm) lumber with 1-1/2 inch (39 mm) jambs (sides) and 1-1/2 inch (39 mm) head (top) and sill (bottom). Attach to this door frame two overlapping flaps of elastomeric membrane material, fastened at the head (top) and jambs (sides) (by clamping between a 1-1/2 inch (39 mm) x 3/4 inch (19mm) batten and frame). Overlap the flaps a minimum of 6 inch (152 mm) in a direction that presents a shingle-like configuration to the water stream from the shower. Overlap sill (bottom) by 1-1/2 inch (39 mm) minimum. Arrange so that any air movement out of the Work Area will cause the flaps to seal against the door frame.
5. Provide shower head and controls.
6. Provide temporary extensions of existing hot and cold water and drainage, as necessary for a complete and operable shower.
7. Provide a soap dish and a continuously adequate supply of soap and maintain in sanitary condition.
8. Arrange so that water from showering does not splash into the Changing or Equipment Rooms.
9. Arrange water shut off and drain pump operation controls so that a single individual can shower without assistance from either inside or outside of the Work Area.
10. Provide flexible hose shower head.

11. Pump waste water to drain or to storage for use in amended water. If pumped to drain, provide 20 micron and 5 micron waste water filters in line to drain or waste water storage. Change filters daily or more often if necessary. Locate filters inside shower unit so that water lost during filter changes is caught by shower pan.
12. Provide hose bib.
13. Provide all other items indicated on contract drawings.

F. **Airlock:** Provide an airlock between Shower Room and Equipment Room. This is a transit area for workers. Separate this room from Equipment Room by a sheet plastic flap doorway.

1. Separate this room from the rest of the building with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.
2. Separate this room from the Equipment Room and Shower Room with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.
3. Separate from Equipment Room by a sheet plastic flapped doorway.

G. **Equipment Room (contaminated area):** Require work equipment, footwear and additional contaminated work clothing to be left here. This is a change and transit area for workers.

1. Separate this room from the Work Area by a 6 mil (0.15 mm) polyethylene flapped doorway.
2. Separate this room from the rest of the building with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.
3. Separate this room from the Shower Room and Work Area with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.
4. Provide a drop cloth layer of sheet plastic on floor in the Equipment Room for every shift change expected. Roll drop cloth layer of plastic from Equipment Room into Work Area after each shift change. Replace before next shift change. Provide a minimum of two (2) layers of plastic at all times. Use only clear plastic to cover floors.

H. **Airlock:** Provide an airlock between Equipment Room and Work Area. This is a transit area for workers.

1. Separate this room from Equipment Room and Work Area by a sheet plastic flapped doorways.
2. Separate this room from the rest of the building with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.
3. Separate this room from the Equipment Room and Work Area with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.

I. **Work Area:** Separate Work Area from the Equipment Room by polyethylene barriers. If the airborne asbestos level in the Work Area is expected to be high, as in dry removal, add an intermediate cleaning space between the Equipment Room and the Work Area. Damp wipe clean all surfaces after each shift change. Provide one additional floor layer of 6 mil (0.15 mm) polyethylene per shift change and remove contaminated layer after each shift.

J. **Decontamination Sequence:** Require that all workers adhere to the following sequence when entering or leaving the Work Area.

1. Entering Work Area: Worker enters Changing Room and removes street clothing, puts on clean disposable overalls and respirator, and passes through the Shower Room into the Equipment Room.
2. Any additional clothing and equipment left in Equipment Room needed by the worker are put on in the Equipment Room.
3. Worker proceeds to Work Area.

K. Exiting Work Area:

1. Before leaving the Work Area, require the worker to remove all gross contamination and debris from overalls and feet.
2. The worker then proceeds to the Equipment Room and removes all clothing except respiratory protection equipment.
3. Extra work clothing such as boots, hard hats, goggles, gloves are to be stored in contaminated end of the Equipment Room.
4. Disposable coveralls are placed in a bag for disposal with other material.
5. Require that Decontamination procedures be followed by all individuals leaving the Work Area.
6. After showering, the worker moves to the Changing Room and dresses in either new coveralls for another entry or street clothes if leaving.

3.2 EQUIPMENT DECONTAMINATION UNIT:

A. Provide an Equipment Decontamination Unit consisting of a serial arrangement of rooms, Clean Room, Holding Room, Wash Room for removal of equipment and material from Work Area. Do not allow personnel to enter or exit Work Area through Equipment Decontamination Unit.

B. Arrange with airlocks between rooms as required below.

C. Wash Down Station: Provide an enclosed Shower Unit located in Work Area just outside Wash Room as an equipment, bag and container cleaning station.

1. Fabricate waterproof floor extending 6 feet (1.83 m) beyond Wash Down station in all directions. Install seamless waterproof membrane over area and extend over curbs on all four sides. Form curbs from 2 inch x 4 inch (51 X 102 mm) lumber laid on the flat.
2. Waterproof membrane is to be fabricated from elastomeric membrane.
3. Do not allow water to collect on waterproof membrane. Remove continuously with a wet vacuum or mops.

D. Wash Room: provide wash room for cleaning of bagged or containerized asbestos-containing waste materials passed from the Work Area.

1. Construct wash room of nominal 2 inch x 4 inch (51 X 102 mm) wood framing and polyethylene sheeting, at least 6 mil (0.15 mm) in thickness and located so that packaged materials, after being wiped clean, can be passed to the Holding Room.
2. Separate this room from the Work Area by a single flapped door of 6 mil (0.15 mm) polyethylene sheeting.
3. Provide a drop cloth layer of plastic on floor in the Wash Room for every load-out operation. Roll this drop cloth layer of plastic from Wash Room into Work Area after each load-out. Provide a minimum of two (2) layers of plastic at all times. Use only clear plastic to cover floors.

E. Airlock: Provide an airlock between Wash Room and Holding Room. This is a transit area.

1. Separate this room from adjacent spaces by a sheet plastic flapped doorway.
2. Separate this room from the rest of the building and adjacent spaces with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.

F. Holding Room: Provide Holding Room as a drop location for bagged asbestos-containing materials passed from the Wash Room. Construct Holding Room of nominal 2 inch x 4 inch (51 X 102 mm) wood framing and polyethylene sheeting, at least 6 mil (0.15 mm) in thickness and located so that bagged materials cannot be passed from the Wash Room through the Holding Room to the Clean Room.

1. Separate this room from the adjacent rooms by flap doors fabricated from 6 mil (0.15 mm) sheet plastic.

G. Airlock: Provide an airlock between Holding Room and Clean Room. This is a transit area.

1. Separate this room from adjacent spaces by a sheet plastic flap doorway.
2. Separate this room from the rest of the building and adjacent spaces with airtight walls fabricated of 6 mil (0.15 mm) polyethylene.

H. Clean Room: provide Clean Room to isolate the Holding Room from the building exterior. If possible locate to provide direct access to the Holding Room from the building exterior.

1. Erect Critical and Primary Barriers as described in Section "Temporary Enclosures" in an existing space. If no space exists construct Clean Room of 2 x 4 (51 X 102 mm) wood framing and polyethylene sheeting, at least 6 mil (0.15 mm) in thickness.
2. Separate this room from the exterior by a single flap door of 6 mil (0.15 mm) polyethylene sheeting.

I. Load-out Area: The load-out area is the transfer area from the building to a truck or dumpster. It may be the Clean Room of the Equipment Decontamination unit or a separate room or loading dock area. Erect Critical and Primary barriers as described in Section "Temporary Enclosures" in load-out area.

1. During transfer of material from load-out area erect primary barriers as described in Section "Temporary Enclosures" as necessary to seal path from load-out area to truck or dumpster.

J. Decontamination Sequence: Take all equipment or material from the Work Area through the Equipment Decontamination Unit according to the following procedure:

1. At washdown station, thoroughly wet clean contaminated equipment or sealed polyethylene bags and pass into Wash Room.
2. When passing equipment or containers into the Wash Room, close all doorways of the Equipment Decontamination Unit, other than the doorway between the Washdown Station and the Wash Room. Keep all outside personnel clear of the Equipment Decontamination Unit.
3. Once inside the washroom, wet clean the bags and/or equipment.
4. When cleaning is complete pass items into Holding Room. Close all doorways except the doorway between the Holding room and the Clean Room.
5. Workers from the building exterior enter Holding Area and remove decontaminated equipment and/or containers for disposal.
6. Require these workers to wear full protective clothing and appropriate respiratory protection.
7. At no time is a worker from an uncontaminated area to enter the enclosure when a removal worker is inside.

3.3 CONSTRUCTION OF THE DECONTAMINATION UNITS:

A. Walls and Ceiling: Construct airtight walls and ceiling using polyethylene sheeting, at least 6 mil (0.15 mm) in thickness. Attach to existing building components or a temporary framework.

B. Floors: Use 2 layers (minimum) of 6 mil (0.15 mm) polyethylene sheeting to cover floors in all areas of the Decontamination Units. Use only clear plastic to cover floors.

C. Flap Doors: Fabricated from three (3) overlapping sheets with openings a minimum of three feet (3') (0.91 meters) wide. Configure so that sheeting overlaps adjacent surfaces. Weights at bottom of sheets as

required so that they quickly close after being released. Put arrows on sheets to indicate direction of overlap and/or travel. Provide a minimum of six feet (6') (1.22 meters) between entrance and exit of any room. Provide a minimum of three feet (3') (0.91 meters) between doors to airlocks.

D. **If the Decontamination area** is located within an area containing friable asbestos on overhead ceilings, ducts, piping, etc., provide the area with a minimum 1/4 inch (6.4 mm) hardboard or 1/2 inch (12.7 mm) plywood "ceiling" with polyethylene sheeting, at least 6 mil (0.15 mm) in thickness covering the top of the "ceiling".

E. **Visual Barrier:** Where the Decontamination area is immediately adjacent to and within view of occupied areas, provide a visual barrier of opaque polyethylene sheeting at least 6 mil (0.15 mm) in thickness so that worker privacy is maintained and work procedures are not visible to building occupants. Where the area adjacent to the Decontamination area is accessible to the public, construct a solid barrier on the public side of the sheeting to protect the sheeting. Construct barrier with wood or metal studs covered with minimum 1/4 inch (6.4 mm) thick hardboard or 1/2 inch (12.7 mm) plywood. Where the solid barrier is provided, sheeting need not be opaque.

F. **Alternate methods** of providing Decontamination facilities may be submitted to the Designer for approval. Do not proceed with any such method(s) without written authorization of the Designer.

G. **Electrical:** Provide subpanel at Changing Room to accommodate all removal equipment. Power subpanel directly from a building electrical panel.

1. Connect all electrical branch circuits in Decontamination unit and particularly any pumps in shower room to a ground-fault circuit protection device.

3.4 CLEANING OF DECONTAMINATION UNITS:

A. **Clean debris and residue** from inside of Decontamination Units on a daily basis or as otherwise indicated on Contract Drawings. Damp wipe or hose down all surfaces after each shift change. Clean debris from shower pans on a daily basis.

B. **If the Changing Room** of the Personnel Decontamination Unit becomes contaminated with asbestos-containing debris, abandon the entire Decontamination Unit and erect a new Decontamination Unit. Use the former Changing Room as an inner section of the new Equipment Room.

3.5 SIGNS:

A. **Post** an approximately 20 inch by 14 inch (508 mm x 356 mm) manufactured caution sign at each entrance to the Work Area displaying the following legend with letter sizes and styles of a visibility required by 29 CFR 1926:

1. Provide signs in both English and Spanish.
2. Legend:
DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA
3. Provide spacing between respective lines at least equal to the height of the respective upper line.

B. **Post** an approximately 10 inch by 14 (254 mm x 356 mm) inch manufactured sign at each entrance to each Work Area displaying the following legend with letter sizes and styles of a visibility at least equal to the following:

1. Provide signs in both English and Spanish.

2.

Legend	**Notation**
NO FOOD, BEVERAGES OR TOBACCO PERMITTED	3/4 in (19 mm) Block
ALL PERSONS SHALL DON PROTECTIVE CLOTHING (COVERINGS) BEFORE ENTERING THE WORK AREA	3/4 in (19 mm) Block
ALL PERSONS SHALL SHOWER IMMEDIATELY AFTER LEAVING WORK AREA AND BEFORE ENTERING THE CHANGING AREA	3/4 in (19 mm) Block

END OF SECTION – 02 80 46

SECTION 02 82 05 - MATERIALS AND EQUIPMENT - ASBESTOS ABATEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 2 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements governing the Contractor's selection of products for use in the Project.

B. **Related Sections:** The following Sections contain requirements that relate to this Section:

1. The Contractor's Construction Schedule is included under Section “Coordination - Asbestos Abatement”.
2. The Contractor’s Schedule of Submittals is included under Section “Submittals - Asbestos Abatement”.
3. The applicability of industry standards to products specified is included under Section “Reference Standards and Definitions - Asbestos Abatement”.
4. The administrative procedures for handling requests for substitutions made after award of the Contract is included under Section “Substitutions - Asbestos Abatement”.

1.3 DEFINITIONS

A. **Definitions** used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.

1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

2. "Named Products" are items identified by the manufacturer's product name, including make or model number or other designation, shown or listed in the manufacturer's published product literature that is current as of the date of the Contract Documents.

3. "Foreign Products" as distinguished from "domestic products," are items substantially manufactured (50 percent or more of value) outside the United States and its possessions. Products produced or supplied by entities substantially owned (more than 50 percent) by persons who are not citizens of, nor living within, the United States and its possessions are also considered to be foreign products.
4. "Materials" are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.

5. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

6. "Equipment" are products that may be either operational or fixed.

a. Operational Equipment are products with operating parts, whether motorized or manually operated, that requires temporary or permanent service connections, such as wiring or piping.

b. Fixed Equipment are products necessary for accomplishing the work that are used as a temporary facility during the work and removed afterward.

1.4 SUBMITTALS

Required submittals: A general listing of products requiring submittals is included at the end of Section "Submittals." This listing may not be complete. Submittal requirements are found in each specification section. Prepare a schedule in tabular form showing each product listed. Include the manufacturer's name and proprietary product names for each item listed.

A. **Product List:** A list of products required is included at the end of this Section. Prepare a schedule in tabular form showing each product listed. Include the manufacturer's name and proprietary product names for each item listed.

B. **Product List:** Prepare a list showing products specified in tabular form acceptable to the Owner's representative. Include generic names of products required. Include the manufacturer's name and proprietary product names for each item listed.

1. Coordinate product list with the Contractor's Construction Schedule and the Schedule of Submittals.

2. Form: Prepare product list with information on each item tabulated under the following column headings:

a. Related Specification Section number.
b. Generic name used in Contract Documents.
c. Proprietary name, model number, and similar designations.
d. Manufacturer's name and address.
e. Supplier's name and address.
f. Installer's name and address.
g. Projected delivery date or time span of delivery period.

3. Initial Submittal: Within 30 days after date of commencement of the Work, submit 3 copies of an initial product list. Provide a written explanation for omissions of data and for known variations from Contract requirements.

a. At the Contractor's option, the initial submittal may be limited to product selections and designations that must be established early in the Contract period.

4. Completed List: Within 10 days after date of commencement of the Work, submit 3 copies of the completed product list. Provide a written explanation for omissions of data and for known variations from Contract requirements.

5. Designer's Action: The Designer will respond in writing to Contractor within 2 weeks of receipt of the completed product list. No response within this period constitutes no objection to listed manufacturers or products but does not constitute a waiver of the requirement that products comply with Contract Documents. The Owner's representative's response will include a list of unacceptable product selections, containing a brief explanation of reasons for this action.

1.5 QUALITY ASSURANCE

A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.

1. When specified products are available only from sources that do not, or cannot, produce a quantity adequate to complete project requirements in a timely manner, consult with the Owner's representative to determine the most important product qualities before proceeding. Qualities may include attributes, such as visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources producing products that possess these qualities, to the fullest extent possible.

B. Compatibility of Options: When the Contractor is given the option of selecting between 2 or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.

1. The contractor is responsible for providing products and construction methods that are compatible with products and construction methods to be installed after completion of the work of this contract.

2. If a dispute arises between contractors over concurrently selectable, but incompatible products, the Designer will determine which products shall be retained and which are incompatible and must be replaced.

C. Foreign Product Limitations: Except under one or more of the following conditions, provide domestic products, not foreign products, for inclusion in the Work:

1. No available domestic product complies with the Contract Documents.

2. Domestic products that comply with the Contract Documents are available only at prices or terms substantially higher than foreign products that comply with the Contract Documents.

D. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior.

1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.

2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:

a. Name of product and manufacturer.
b. Model and serial number.
c. Capacity.
d. Speed.
e. Ratings.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.

1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to the site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
7. Store products subject to damage by the elements above ground, under cover in a weather tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION

A. **General Product Requirements:** Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation.

1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.

2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.

B. **Product Selection Procedures:** The Contract Documents and governing regulations govern product selection. Procedures governing product selection include the following:

1. Proprietary Specification Requirements: Where Specifications name only a single product or manufacturer, provide the product indicated. No substitutions will be permitted.

2. Semi-proprietary Specification Requirements: Where Specifications name 2 or more products or manufacturers, provide 1 of the products indicated. No substitutions will be permitted.

   a. Where Specifications specify products or manufacturers by name, accompanied by the term "or equal" or "or approved equal," comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.

3. Nonproprietary Specifications: When Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.

4. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.

5. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated.

a. Manufacturer's recommendations may be contained in published product literature or by the manufacturer's certification of performance.

6. Compliance with Standards, Codes, and Regulations: Where Specifications only require compliance with an imposed code, standard, or regulation, select a product that complies with the standards, codes, or regulations specified.

7. Visual Matching: Where Specifications require matching an established Sample, the Designer's decision will be final on whether a proposed product matches satisfactorily.

a. Where no product available within the specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category.

8. Visual Selection: Where specified product requirements include the phrase "... as selected from manufacturer's standard colors, patterns, textures ..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Designer will select the color, pattern, and texture from the product line selected.

9. Allowances: Refer to individual Specification Sections and "Allowance" provisions in Division 1 for allowances that control product selection and for procedures required for processing such selections.

PART 3 - EXECUTION

3.1 INSTALLATION OF PRODUCTS

A. **Comply with manufacturer's instructions and recommendations** for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.

1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

END OF SECTION 02 82 05

SECTION 02 82 06 - SUBSTITUTIONS - ASBESTOS ABATEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 2 Specification Sections, apply to this Section.

1.2 SUMMARY

A. **This Section includes** administrative and procedural requirements for handling requests for substitutions made after award of the Contract.

B. **Related Sections:** The following Sections contain requirements that relate to the Section:

1. **Section "Reference Standards and Definitions - Asbestos Abatement"** specifies the applicability of industry standards to products specified.

2. **Section "Coordination - Asbestos Abatement"** specifies requirements for submitting the Contractor's Construction Schedule.

3. **Section "Submittals - Asbestos Abatement"** specifies requirements for submitting the Submittal Schedule.

4. **Section "Materials and Equipment - Asbestos Abatement"** specifies requirements governing the Contractor's selection of products and product options.

1.3 DEFINITIONS

A. **Definitions** in this Article do not change or modify the meaning of other terms used in the Contract Documents.

B. **Substitutions:** Changes in products, materials, equipment, and methods of construction required by the Contract Documents proposed by the Contractor after award of the Contract are considered to be requests for substitutions. The following are not considered to be requests for substitutions:

1. Substitutions requested during the bidding period, and accepted by Addendum prior to award of the Contract, are included in the Contract Documents and are not subject to requirements specified in this Section for substitutions.

2. Revisions to the Contract Documents requested by the Owner or Designer.

3. Specified options of products and construction methods included in the Contract Documents.

4. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

1.4 SUBMITTALS

A. **Substitution Request Submittal:** The Designer will consider requests for substitution if received within 10 days after commencement of the Work. Requests received more than 10 days after commencement of the

Work may be considered or rejected at the discretion of the Designer.

1. Submit electronic copies of each request for substitution for consideration. Submit requests in the form and according to procedures required for change-order proposals.

2. Identify the product or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers.

3. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:

a. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate contractors that will be necessary to accommodate the proposed substitution.

b. A detailed comparison of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements, such as performance, weight, size, durability, and visual effect.

c. Product Data, including Drawings and descriptions of products and fabrication and installation procedures.

d. Samples, where applicable or requested.

e. A statement indicating the substitution's effect on the Contractor's Construction Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.

f. Cost information, including a proposal of the net change, if any in the Contract Sum.

g. The Contractor's certification that the proposed substitution conforms to requirements in the Contract Documents in every respect and is appropriate for the applications indicated.

h. The Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the substitution to perform adequately.

4. Designer's Action: If necessary, the Designer will request additional information or documentation for evaluation within one week of receipt of a request for substitution. The Designer will notify the Contractor of acceptance or rejection of the substitution within 2 weeks of receipt of the request, or one week of receipt of additional information or documentation, whichever is later. Acceptance will be in the form of a change order.

a. Use the product specified if the Designer cannot make a decision on the use of a proposed substitute within the time allocated.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

A. **Conditions:** The Designer will receive and consider the Contractor's request for substitution when one or more of the following conditions are satisfied, as determined by the Designer. If the following conditions are not satisfied, the Designer will return the requests without action except to record noncompliance with these

requirements.

1. Extensive revisions to the Contract Documents are not required.

2. Proposed changes are in keeping with the general intent of the Contract Documents.

3. The request is timely, fully documented, and properly submitted.

4. The specified product or method of construction cannot be provided within the Contract Time.

5. The Designer will not consider the request if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.

6. The request is directly related to an "or-equal" clause or similar language in the Contract Documents.

7. The requested substitution offers the Owner a substantial advantage, in cost, time, energy conservation, or other considerations, after deducting additional responsibilities the Owner must assume. The Owner's additional responsibilities may include compensation to the Designer for redesign and evaluation services, increased cost of other construction by the Owner, and similar considerations.

8. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.

9. The specified product or method of construction cannot be provided in a manner that is compatible with other materials and where the Contractor certifies that the substitution will overcome the incompatibility.

10. The specified product or method of construction cannot be coordinated with other materials and where the Contractor certifies that the proposed substitution can be coordinated.

11. The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution provides the required warranty.

B. **The Contractor's submittal** and the Designer's acceptance of Shop Drawings, Product Data, or Samples for construction activities not complying with the Contract Documents do not constitute an acceptable or valid request for substitution, nor do they constitute approval.

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 02 82 06

SECTION 02 82 08 - PROJECT DECONTAMINATION

PART 1 - GENERAL

1.1 SUMMARY:

A. **Work of This Section** includes the decontamination of air in the Work Area which has been, or may have been, contaminated by the elevated airborne asbestos fiber levels generated during abatement activities, or which may previously have had elevated fiber levels due to friable asbestos-containing materials (ACM) in the space.

B. **Work of** This **Section** includes the cleaning, decontamination, and removal of temporary facilities installed prior to abatement work, including:

1. Primary and Critical Barriers
2. Decontamination Unit
3. Pressure Differential System

C. **Work of This Section** includes the cleaning, and decontamination of all surfaces (ceiling, walls, floor) of the Work Area, and all furniture or equipment in the Work Area.

1.2 RELATED DOCUMENTS:

A. **Drawings and general provisions of the Contract**, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to work of this section.

1.3 DESCRIPTION OF REQUIREMENTS:

A. **General: Decontamination** of the Work Area following asbestos abatement.

B. **If the asbestos abatement work is on damaged or friable materials** the work is a four step procedure with two cleanings of the Primary Barrier plastic prior to its removal and two cleanings of the room surfaces to remove any new or existing contamination. Unless specifically indicated otherwise all materials are considered damaged or friable for purposes of this section.

C. **If the asbestos abatement work is on undamaged and non-friable materials** the decontamination procedure is a two step procedure with two cleanings of the Primary Barrier plastic to remove contamination, thus preventing contamination of the building when the Work Area isolation barriers are removed.

D. **In both cases** operation of the pressure differential system is used to remove airborne fibers generated by the abatement work.

1.4 RELATED WORK SPECIFIED ELSEWHERE:

A. **Removal of Gross Debris** is integral with the performance of abatement work and as such is specified in Section “Resilient Flooring Removal – Aggressive Asbestos Abatement”.

1.5 CLEARANCE AIR SAMPLING BY THE OWNER:

A. **To determine** if the elevated airborne asbestos structure concentration encountered during abatement operations has been reduced to the specified level, the Owner will secure samples and analyze them

according to the following procedures.

1. Aggressive sampling procedures as described below will be followed.
2. TEM samples will be secured and analyzed as indicated below.
3. Work Area Clearance: upon meeting the TEM Clearance requirements the work of Section Project Decontamination can continue.

1.6 AGGRESSIVE SAMPLING BY THE OWNER:

A. All Air Samples will be taken using aggressive sampling techniques as follows:

1. Before sampling pumps are started the exhaust from forced-air equipment (leaf blower with an approximately 1 horsepower (746 watts) electric motor) will be swept against all walls, ceilings, floors, ledges and other surfaces in the room. This procedure will be continued for 5 minutes per 10,000 (283 cubic meters) cubic feet of room volume.
2. One 20 inch (508 mm) diameter fan per 10,000 cubic feet (283 cubic meters) of room volume will be mounted in a central location at approximately 6 feet-6 inches (2 meters) above floor, directed toward ceiling and operated at low speed for the entire period of sample collection. Contractor shall provide leaf blower, fans, and electrical cords required for aggressive sampling.
3. Air samples will be collected in areas subject to normal air circulation away from room corners, obstructed locations, and sites near windows, doors of vents.
4. After air sampling pumps have been shut off, fans will be shut off.
5. In work areas where a dirt floor or exposed fibrous glass insulation is in the space, but outside the work area, maintain a critical barrier to prevent disturbance of these surfaces during aggressive sampling.

NOTE: The Contractor shall provide all fans, leaf blowers, and extension cords necessary to complete aggressive sampling.

1.7 SCHEDULE OF CLEARANCE AIR SAMPLES BY OWNER:

A. Sample cassettes: Samples will be collected on 25 mm. cassettes as follows:

1. TEM: 0.45 micrometer mixed cellulose ester or 0.40 micrometer polycarbonate, with 5.0 micron mixed cellulose ester backing filter.

B. Number and Volume of Samples: The number and volume of air samples given in the schedules is approximate. The exact number and volume of samples collected by the Owner may vary depending upon job conditions. Contractor shall make all efforts to construct work area enclosures in such a manner that minimizes the number of work area containments required for clearance while including all building work areas where clearance sampling is required.

C. Sampling sensitivity:

1. TEM: Analytical Sensitivity as set forth in the analytical method used or the AHERA regulation.

1.8 TRANSMISSION ELECTRON MICROSCOPY:

A. **In each Work Area** after completion of all cleaning work, a minimum of 7 samples will be taken and analyzed as follows:

Location Sampled	Number of Samples	Analytical Sensitivity Struct/cc	Approx. Volume (L)	Approx. Flow (LPM)
Each Work Area	5	0.005	1,300-1,800	1-15
Work Area Blank	1	0.005	0	Open for 30 Seconds
Laboratory Blank	1	0.005	0	Do Not Open

B. **Analysis** will be performed using the analysis method set forth in the AHERA Regulation 40 CFR Part 763 Appendix A.

C. **Asbestos Structures** referred to in this Section include asbestos fibers, bundles, clusters or matrices, as defined by method of analysis.

D. **Release Criteria:** Asbestos Decontamination of the work site is complete if the following conditions are met:

1. **Work Area Samples are below filter background levels**
   a. All Work Area sample volumes are greater than 1,199 liters for a 25 mm. sampling cassette.
   b. The average concentration of asbestos of the five Work Area Samples does not exceed the filter background level of 70 structures per square millimeter of filter area.

E. **If these conditions are not met** then the decontamination is incomplete, repeat the cleaning procedures of this section. If work area release criteria are not met, the Contractor shall be responsible for the cost of any failed clearance tests (including analytical costs and air monitoring fees).

F. **Termination of Analysis:** if the arithmetic mean (average) asbestos concentration on the blank filters exceeds 70 structures per square millimeter of filter area the analysis will cease and new samples collected.

G. **Termination of Analysis:** if the sample media are overloaded, the analysis will cease and new samples shall be collected.

1.9 LABORATORY TESTING BY THE OWNER:

A. **Transmission Electron Microscopy by the Owner:**

1. **Samples will be sent by overnight courier as required** for analysis by Transmission Electron Microscopy. Samples will not be carried on weekends, so that samples shipped on Friday will arrive on the following Monday. Verbal results will normally be available during the 5th working day after receipt of samples by the laboratory. The laboratory is capable of analyzing a maximum of 13 such samples from this project at any one time. All Transmission Electron Microscopy results will be

available to the Contractor.

2. **Submit with bid unit cost** for each day of waiting beyond that set forth in the paragraph above.

1.10 SUBMITTALS:

A. **Before Start of Work** submit the following to the Designer for review. Do not begin work until these submittals are returned with the Designer's action stamp indicating that the submittal is returned for "Unrestricted Use" or "Final but Restricted Use."

1. Submit test report from an independent testing laboratory on the fire resistance rating of the assembly of the spray back fireproofing on the lock-back sealer used.

B. **Before Start of Work** submit the following to the Designer for review. Do not begin work until these submittals are returned with the Designer's action stamp indicating that the submittal has been' "Received - Not Reviewed."

1. Material Safety Data Sheet: Submit Material Safety Data Sheets, or equivalent, in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) for the following:

   a. "Lock-Back," sealer.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 START OF WORK:

A. **Previous Work:** During completion of the asbestos abatement work specified in other sections, the Secondary Barrier of polyethylene sheeting will have been removed and disposed of along with any gross debris generated by the asbestos abatement work.

B. **Visual inspection:** Perform visual inspections of the work area along with the Project Administrator at each step of the decontamination process.

1. Follow inspection procedures in the American Society for Testing and Material (ASTM) standard for visual inspections, ASTM E1368.

C. **Start of Work:** Work of this section begins with the cleaning of the Primary Barrier. At start of work the following will be in place:

1. Primary Barrier: Two layers of polyethylene sheeting on floor and one layer on walls.
2. Critical Barrier: An airtight barrier between the Work Area and other portions of the building or the outside.
3. Critical Barrier Sheeting: Over lighting fixtures and clocks, ventilation openings, doorways, convectors, speakers and other openings.
4. Decontamination Units: For personnel and equipment in operating condition.
5. Pressure Differential System: In operation.

3.2 FIRST CLEANING:

A. First Cleaning: Carry out a first cleaning of all surfaces of the work area including items of remaining sheeting, tools, scaffolding and/or staging by use of damp-cleaning and mopping, and/or a High Efficiency Particulate Air (HEPA) filtered vacuum. (Note: A HEPA vacuum may fail if used with wet material.) Do not perform dry dusting or dry sweeping. Use each surface of a cleaning cloth one time only and then dispose of as contaminated waste. Continue this cleaning until there is no visible debris from removed materials or residue on plastic sheeting or other surfaces.

1. Remove All Filters in Air Handling System(s) and dispose of as asbestos-containing waste in accordance with requirements of Section “Disposal of Regulated Asbestos-Containing Material”.

2. After the surfaces have passed a visual inspection verifying that all debris and residue has been removed from the sheet plastic, allow a waiting period that is long enough for the HEPA-filtered fan units operating in the work area to to clean air of airborne asbestos fibers. Use oscillating fans as necessary to assure circulation of air in all parts of work areas during this period. Maintain Pressure Differential System in operation.

3.3 SECOND CLEANING:

A. Second Cleaning: Carry out a second cleaning of all surfaces in the work area in the same manner as the first cleaning.

B. **Visual inspection:** Before the application of any sealer to abated surfaces as a lock-back, perform a visual inspection to determine if all ACM including debris and residue has been removed. Perform visual inspections along with Project Administrator. When the area is visually clean, and if after sweeping of all surfaces with leaf blower, no debris, residue, dust or other material is found, complete the certification at the end of this section. Visual inspection is not complete until confirmed in writing, on the certification, by Project Administrator. After this visual inspection is passed, lock-back sealants can be applied and the work area decontamination process can be initiated.

C. Sealing of substrate: Perform sealing of substrate or installation of spray-applied finishes or fireproofing, where required, at this time. Maintain Pressure Differential System in operation during encapsulation work. Perform work only after meeting the following requirements:

1. Surfaces to be covered with sealer have met the requirements for a visual inspection in this section.
2. Airborne fiber counts in the Work Area are at or below 0.01 fibers per cubic centimeter as measured by phase contrast microscopy.

D. Removal of Primary Barriers:

1. Immediately following the second cleaning of the Primary plastic, remove all Primary Barrier sheeting and Material Decontamination Unit, if there is one, leaving only:

    a. Critical Barrier: Which forms the sole barrier between the Work Area and other portions of the building or the outside.
    b. Critical Barrier Sheeting: Over lighting fixtures and clocks, ventilation openings, doorways, convectors, speakers, and other openings.
    c. Decontamination Unit: For personnel, in operating condition.
    d. Pressure Differential System: Maintain in continuous operation.

3.4 THIRD CLEANING:

A. **Third cleaning:** Carry out a third cleaning of all surfaces in the work area in the same manner as the first cleaning immediately after removal of Primary plastic. This cleaning is now being applied to existing room surfaces. Take care to avoid water marks or other damage to surfaces.

B. **Contractor's Testing:** At the completion of the above cleaning visually inspect all surfaces. Reclean if any dust, debris, etc. is found. At completion of this inspection sweep entire Work Area including walls, ceilings, ledges, floors and other surfaces in the Work Area with exhaust from forced-air equipment (leaf blower with approximately 1 horsepower (745.7 watts) electric motor or equivalent). Do not direct forced-air equipment at any seal in any Critical Barrier. If any debris or dust is found repeat the cleaning. Continue this process until no debris dust or other material is found while sweeping of all surfaces with forced-air equipment.

1. Cover carpeting in the work area with 6 mil (0.15 mm) polyethylene during Contractor's testing procedures. Seal plastic to baseboards with duct tape.

C. **Cleaning Carpeting:** At the completion of cleaning of all surfaces except carpeting, HEPA vacuum carpeting designated to remain in Work Areas using a floor cleaning attachment adjusted so that rubber skirting is in contact with carpet surface. Use a passive (non-power brush type) floor attachment with rubber floor seals and adjustable above-floor height. Completely clean carpeting in one direction with each pass of the floor attachment overlapping the previous pass by one-half the attachment width. At the completion of one such cleaning, vacuum clean in the same manner in a direction at right angles to the initial cleaning. Perform a visual inspection of the carpet at the completion of cleaning, in accordance with inspection standards of the American Society for Testing and Material (ASTM) standard for visual inspections, ASTM E1368.

D. **After a visual inspection**, again wait for a period of time long enough for the HEPA-filtered fan units operating in the work area to clean air of airborne asbestos fibers. Use oscillating fans as necessary to assure circulation of air in all parts of work areas during this period. Maintain pressure differential system in operation.

3.5 FINAL CLEANING:

A. **Final Cleaning:** Carry out a final cleaning of all surfaces in the Work Area in the same manner as the previous cleaning.

B. **Contractor's Testing:** At the completion of the above cleaning visually inspect all surfaces. Reclean if any dust, debris, etc. is found. At completion of this inspection sweep entire Work Area including walls, ceilings, ledges, floors and other surfaces in the Work Area with exhaust from forced air equipment (leaf blower with approximately 1 horsepower electric motor or equivalent). Do not direct forced air equipment at any seal in any critical barrier. If any debris or dust is found repeat the final cleaning. Continue this process until no debris dust or other material is found while sweeping of all surfaces with forced air equipment.

C. **After a visual inspection**, again wait for a period of time long enough for the HEPA-filtered fan units operating in the work area to clean air of airborne asbestos fibers. Use oscillating fans as necessary to assure circulation of air in all parts of work areas during this period. Maintain pressure differential system in operation.

3.6 VISUAL INSPECTION:

A. **After Final Cleaning Perform a Complete Visual Inspection** of the entire Work Area including: all surfaces, ceiling, walls, floor, decontamination unit, all plastic sheeting, seals over ventilation openings, doorways, windows, and other openings; look for debris from any source, residue on surfaces, dust or other matter. During visual inspection sweep entire work area including walls, ceilings, ledges, floors, and other surfaces in the room with exhaust from forced air equipment (leaf blower with approximately 1 horsepower electric motor or equivalent). If any debris, residue, dust or other matter is found repeat final cleaning and continue decontamination procedure from that point. When the area is visually clean, and if after sweeping of all surfaces with leaf blower, no debris, residue, dust or other material is found, complete the certification at the end of this section. Visual inspection is not complete until confirmed in writing, on the certification, by Project Administrator.

B. **Temporary lighting:** Provide a minimum of 100 foot candles (1075 Lumens / sq meter) of lighting on all surfaces in the areas to be subjected to visual inspection. Provide hand held lights providing 150 foot candles (1600 lumens / sq meter) at 4 feet (1.25 meters) capable of reaching all locations in work area.

C. **Lifts:** Provide ladders, scaffolding, and lifts as required to provide access to all surfaces in the area to be subjected to visual inspection. Access is to allow touching of all surfaces.

3.7 CLEARANCE AIR SAMPLING BY OWNER (TEM):

A. **Transmission Electron Microscopy (TEM):** After the work area is found to be visually clean by Contractor's inspection and testing, TEM air samples will be collected and analyzed by the Owner in accordance with the procedure for Transmission Electron Microscopy set forth in Part 1 of this section. Contractor shall contact Designer 48 hours prior to requesting TEM clearance air sampling.

1. If Release Criteria are not met, repeat Final Cleaning and continue Decontamination procedure from that point.
2. If Release Criteria are met, remove work area isolation in accordance with requirements of this section.

B. 1. If Release Criteria are not met, repeat Final Cleaning and continue Decontamination procedure from that point.

2. If Release Criteria are met, remove work area isolation in accordance with requirements of this section.

NOTE: **The Contractor shall compensate the Owner for the costs of failed clearance sampling and associated fees, including but not limited to: laboratory analytical fees, shipping fees, air monitoring technician mileage, air monitoring technician time on site related to air monitoring, air monitoring technician travel time, air monitoring cassettes, per diem, lodging, and pump rental.**

3.8 LOCK-BACK:

A. **Encapsulation of substrate:** Perform encapsulation of substrate or installation of spray-applied finishes or fireproofing, where required, before Removal of Work Area Isolation as specified below. Maintain Pressure Differential System in operation during encapsulation work.

3.9 REMOVAL OF WORK AREA ISOLATION:

A. **After all requirements of this section** have been met:

1. Shut down and remove the Pressure Differential System. Seal HEPA filtered fan units, HEPA

vacuums and similar equipment with 6 mil (0.15 mm) polyethylene sheet and duct tape to form a tight seal at intake end before being moved from Work Area.

2. Remove Personnel Decontamination Unit.
3. Remove the Critical Barriers separating the Work Area from the rest of the building. Remove any small quantities of residual material found upon removal of the plastic sheeting with wet wiping, HEPA filtered vacuum cleaners and local area protection. If significant quantities, as determined by the Designer, are found then the entire area affected shall be decontaminated as specified in Cleaning and Decontamination Procedures.
4. Remove all equipment, materials, debris from the work site.
5. Dispose of all asbestos-containing waste material as specified in Section “Disposal of Regulated Asbestos Containing Material”.

4.0 SUBSTANTIAL COMPLETION OF ABATEMENT WORK:

A. **Abatement Work is Substantially Complete** upon meeting the requirements of this section including submission of:

1. Certificate of Visual Inspection.
2. Receipts Documenting proper disposal as required by Section “Disposal of Regulated Asbestos-Containing Material”.
3. Punch list detailing repairs to be made and incomplete items.

4.1 CERTIFICATE OF VISUAL INSPECTION:

A. **Following this section is a "Certificate of Visual Inspection"**. This certification is to be completed by the Contractor and certified by the Project Administrator. Submit completed Certificate with Application for Final Payment. Final payment will not be made until this Certification is executed.

END OF SECTION - 02 82 08

CERTIFICATION OF VISUAL INSPECTION

In accordance with Section "Project Decontamination" the Contractor hereby certifies that he has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found no dust, debris or residue.

by: (Signature_____ Date_____

(Print Name)_____

(Print Title)_____

PROJECT ADMINISTRATOR CERTIFICATION

The Project Administrator hereby certifies that he has accompanied the Contractor on the Contractor's visual inspection and verifies that this inspection has been thorough and to the best of their knowledge and belief, the Contractor's Certification above is a true and honest one.

by: (Signature)_____ Date_____

(Print Name)_____

(Print Title)_____

SECTION 02 82 33 - REMOVAL OF ASBESTOS-CONTAINING MATERIALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. **Drawings and general provisions of Contract**, including General and Supplementary Conditions and Division - 02 Specification Sections, apply to work of this section.

1.2 RELATED WORK SPECIFIED ELSEWHERE:

A. **Worker Protection** requirements are set forth in Section - Worker Protection - Asbestos abatement.
B. **Installation of Critical and Primary Barriers**, and Work Area Isolation Procedures are set forth in Section - Temporary Enclosures.
C. **Project Decontamination** procedures after removal of the Secondary Barrier are specified in Section - Project Decontamination.
D. **Disposal of asbestos-containing waste** is specified in Section - Disposal of Regulated Asbestos-Containing Material.

1.3 SUBMITTALS:

A. **Before Start of Work:** Submit the following to the Designer for review. Do not start work until these submittals are returned with Designer's action stamp indicating that the submittal is returned for unrestricted use.

1. **Surfactant:** Submit product data, use instructions and recommendations from manufacturer of surfactant intended for use. Include data substantiating that material complies with requirements.

2. **Removal Encapsulant:** Submit product data, use instructions and recommendations from manufacturer of removal encapsulant intended for use. Include data substantiating that material complies with requirements.

3. **NESHAP Certification:** Submit certification from manufacturer of surfactant or removal encapsulant that, to the extent required by this specification, the material, if used in accordance with manufacturer's instructions, will wet Asbestos-Containing Materials (ACM) to which it is applied as required by the National Emission Standard for Hazardous Pollutants (NESHAP) Asbestos Regulations (40 CFR 61, Subpart M).

B. **Before Start of Work** submit the following to the Designer for review. Do not begin work until these submittals are returned with the Designer's action stamp indicating that the submittal has been' "Received - Not Reviewed."

1. Material Safety Data Sheet: Submit Material Safety Data Sheets, or equivalent, in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) for the following:
a. Surfactants.
b. Encapsulants.

c. Solvents.

PART 2 - PRODUCTS:

2.1 MATERIALS

A. Wetting Materials: For wetting prior to disturbance of ACM use either amended water or a removal encapsulant:

B. Amended Water: Provide water to which a surfactant has been added. Use a mixture of surfactant and water which results in wetting of the ACM and retardation of fiber release during disturbance of the material equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50 percent polyoxyethylene ester and 50 percent polyoxyethylene ether mixed with five gallons (19 liters) of water.

C. Removal Encapsulant: Provide a penetrating type encapsulant designed specifically for removal of ACM. Use a material which results in wetting of the ACM and retardation of fiber release during disturbance of the material equal to or greater than that provided by water amended with a surfactant consisting of one ounce of a mixture of 50 percent polyoxyethylene ester and 50 percent polyoxyethylene ether in five gallons (19 liters) of water.

D. Polyethylene Sheet: A single polyethylene film in the largest sheet size practicable to minimize seams, 6.0 mil (0.15 mm) thick clear, frosted, or black as indicated.

E. Polyethylene Sheet: Provide flame resistant polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films. Provide largest size possible to minimize seams, 6.0 mil (0.15 mm) thick frosted or black as indicated.

F. Duct Tape: Provide duct tape in 2 inch or 3 inch (50mm or 75 mm) widths as indicated, with an adhesive which is formulated to stick aggressively to sheet polyethylene.

G. Spray Cement: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.

H. Disposal Bags: Provide 6 mil (0.15 mm) thick leak-tight polyethylene bags labeled as required by Section - Disposal of Regulated Asbestos Containing Material.

I. Fiberboard Drums: Provide heavy duty leak tight fiberboard drums with tight sealing locking metal tops.

J. Paper board Boxes: Provide heavy duty corrugated paper board boxes coated with plastic or wax to retard deterioration from moisture. Provide in sizes that will easily fit in disposal bags.

K. Felt: Standard felt approximately 1/16 inch (1.6 mm) thick and 36 inches (900 mm) to 72 inches (1800 mm) in width.

PART 3 - EXECUTION

3.1 SECONDARY BARRIER:

A. **Secondary Barrier:** Over the Primary Barrier, install as a drop cloth a clear 6 mil (0.15 mm) sheet plastic in all areas where asbestos removal work is to be carried out, except work areas where floor tile/mastic and/or carpet removal is required. Completely cover floor with sheet plastic. Where the work is within 10 feet (3 m) of a wall extend the Secondary Barrier up wall to ceiling. Support sheet plastic on wall with duct tape, seal top of Secondary plastic to Primary Barrier with duct tape so that debris is unable to get behind it. Provide cross strips of duct tape at wall support as necessary to support sheet plastic and prevent its falling during removal operations.

1. **Install Secondary Barrier** at the beginning of each work shift. Install only sufficient plastic for work of that shift.
2. **Remove Secondary Barrier** at end of each work shift or as work in an area is completed. Fold plastic toward center of sheet and pack in disposal bags. Keep material on sheet continuously wet until bagged.
3. **Install Walkways** of black 6 mil (0.15 mm) plastic between active removal areas and decontamination units to protect Primary Layer from tracked material. Install walkways at the beginning of, and remove at the end of, each work shift.

3.2 WORKER PROTECTION:

A. **Before beginning work** with any material for which a Material Safety Data Sheet has been submitted provide workers with the required protective equipment. Require that appropriate protective equipment be used at all times.

3.3 WET REMOVAL:

A. **Thoroughly wet** to satisfaction of Designer ACM to be removed prior to stripping and/or tooling to reduce fiber dispersal into the air. Accomplish wetting by a fine spray (mist) of amended water or removal encapsulant. Saturate material sufficiently to wet to the substrate without causing excess dripping. Allow time for amended water or removal encapsulant to penetrate material thoroughly. If amended water is used, spray material repeatedly during the work process to maintain a continuously wet condition. If a removal encapsulant is used, apply in strict accordance with manufacturer's written instructions. Perforate outer covering of any installation which has been painted and/or jacketed in order to allow penetration of amended water or removal encapsulant, or use injection equipment to wet material under the covering. Where necessary, carefully strip away while simultaneously spraying amended water or removal encapsulant on the installation to minimize dispersal of asbestos fibers into the air.

1. **Mist work area continuously** with amended water whenever necessary to reduce airborne fiber levels.

2. **Remove saturated ACM** in small sections from all areas. Do not allow material to dry out. As it is removed, simultaneously pack material while still wet into disposal bags. Twist neck of bags, bend

over and seal with minimum three wraps of duct tape. Clean outside and move to Wash Down Station adjacent to Material Decontamination Unit.

3. **Evacuate air from disposal bags** with a HEPA filtered vacuum cleaner before sealing.

B. Not Used.

C. Not Used.

D. Pipe Insulation: Spray with a mist of amended water or removal encapsulant. Allow amended water or removal encapsulant to saturate material to substrate. If a removal encapsulant is used, use in strict accordance with manufacturer's instructions. Cut bands holding preformed pipe insulation, slit jackets at seams, remove and hand-place in a disposal bag. Remove job-molded fitting insulation in chunks and hand place in a disposal bag. Do not drop to floor. Remove any residue on pipe or fitting with stiff bristle nylon hand brush. In locations where pipe fitting insulation is removed from pipe with straight runs insulated with fibrous glass or other non-asbestos-containing fibrous material, remove fibrous material 6" (150 mm) from the point where it contacts the asbestos-containing insulation.

3.4 NOT USED.

3.5 LOCALIZED CONTROL OF MATERIAL RELEASE:

A. Pipe Insulation: HEPA vacuum surface of pipe insulation. Cut bands holding preformed pipe insulation, slit jackets at seams while holding HEPA vacuum under cut, remove and hand-place in a disposal bag. Remove job-molded fitting insulation in chunks, using nozzle of HEPA vacuum to collect debris generated, and hand-place in a disposal bag. Do not drop to floor. Remove any residue on pipe or fitting with wire brush. Brushing toward the nozzle of a HEPA vacuum. In locations where pipe fitting insulation is removed from pipe with straight runs insulated with fibrous glass or other non-asbestos-containing fibrous material, remove fibrous material 6 inches (150 mm) from the point where it contacts the asbestos-containing insulation. Use a two worker crew for work, with one worker removing material and one worker holding the nozzle of a HEPA vacuum in the location of disturbance.

3.6 NOT USED.

3.7 NOT USED.

END OF SECTION 02 82 33

SECTION 02 82 35 - DISPOSAL OF REGULATED ASBESTOS-CONTAINING MATERIAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. **Drawings and general provisions of Contract**, including General and Supplementary Conditions and Division-2 Specification Sections, apply to work of this section.

1.2 RELATED WORK SPECIFIED ELSEWHERE:

A. **Worker protection requirements** are set forth in Section Worker Protection - Asbestos abatement

B. **Section Codes, Regulations and Standards - Asbestos Abatement** describes applicable federal, state and local regulations.

1.3 DESCRIPTION OF THE WORK:

A. **This section describes the disposal of Regulated Asbestos-Containing Materials (RACM)**. Disposal includes packaging of Regulated Asbestos-Containing Materials. Disposal may be accomplished either by land filling or converting Regulated Asbestos Containing Materials to non Asbestos waste.

1.4 SUBMITTALS:

A. **Before Start of Work:** Submit the following to the Designer for review. Do not start work until these submittals are returned with Designer's action stamp indicating that the submittal is returned for unrestricted use.

1. **Copy of state or local license** for waste hauler.

2. **Name and address of landfill** where Regulated Asbestos Containing Materials are to be buried. Include contact person and telephone number.

3. **Name and address of processor** where Regulated Asbestos-Containing Materials are to be processed into non-asbestos waste if conversion of waste is the disposal method used. Include contact person and telephone number. Also provide the following information about the process and operation used by the processor:

a. Results of start-up performance testing and performance testing for last 90 days including operating parameters, feed characteristics, and analysis of output materials.
b. Results of composite analysis required during initial 90 days of operation and results of composite analysis of monthly product composite samples for last 90 days.
c. Results of continuous monitoring and logs of process operating parameters for the initial 90 days and last 90 days of operation.
d. A description of any deviation from the operating parameters established during performance testing, the duration of the deviation, and steps taken to correct the deviation.
e. Product data on process to be used

4. **Chain of Custody form** and form of waste manifest proposed

5. **Sample of disposal bag** and any added labels to be used.

B. **On a weekly basis** submit copies of all manifests and disposal site receipts to Designer.

C. **Waste Shipment Record:** Maintain a waste shipment record as required by the NESHAP regulation which indicates the waste generator, transporter, and disposal site, and which describes the nature, size, type of container, and form of asbestos waste. Submit to Designer within 35 days of departure from building.

PART 2 - PRODUCTS:

2.1 MATERIALS

A. **Disposal Bags:** Provide 6 mil (0.15 mm) thick leak-tight polyethylene bags labeled with three labels with text as follows:

1. **First Label:** Provide in accordance with 29 CFR 1910.1200(f) of OSHA's Hazard Communication standard:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
BREATHING AIRBORNE FIBERS IS
HAZARDOUS TO YOUR HEALTH

2. **Second Label:** Provide in accordance with U. S. Department of Transportation regulation on hazardous waste marking. 49 CFR parts 171 and 172. Hazardous Substances
RQ-ASBESTOS WASTE
CLASS 9
NA2212-PG III

3. **Third Label:** Provide the name of the waste generator (Owner's name), the location from which the waste was generated and the names and addresses of the contractor and transporter. This label must be durable, able to repel dirt and moisture (e.g., permanent marker). Label must be placed directly on disposal bag(s) in a legible format. **Peel and stick type labels are expressly prohibited.**

2.2 VITRIFICATION:

A. **If conversion is used, convert Regulated Asbestos-Containing Materials to non-asbestos waste** by thermal conversion in a process including the following principal elements. Comply with all EPA and DOT requirements for asbestos waste until the waste is converted:

1. **Receiving and storage:** areas that are maintained as contained controlled areas isolated by physical barriers and a pressure differential
2. **Melting:** process that is intrinsically safe in that it will not allow unconverted asbestos to appear in the final product under any circumstances

B. **Processor:** Use a processor that meets all the requirements of the EPA NESHAP regulation for an operation that converts regulated asbestos-containing material and asbestos-containing waste material into non-asbestos (asbestos-free) material as set forth in 40 CFR 61 Sub-part A and M section 61.155

C. **Available Processors:** Subject to compliance with requirements, providers of processes include, but are

not limited to, the following:

D. **Processors:** Subject to compliance with requirements, utilize process provided by one of the Following:

1. GTS Duratek
8955 Guilford Rd, Suite 200
Columbia, MD 21045
(800) 638-3838

2. Penberthy Electromelt
631 So. 96th Street
Seattle, WA 98108

PART 3 - EXECUTION

3.1 SEQUENCE

A. **Comply with the following sections** during all phases of this work:
1. Section Worker Protection - Asbestos Abatement
2. Section Respiratory Protection

3.2 GENERAL:

A. **All waste** is to be hauled by a waste hauler with all required licenses from all state and local authority with jurisdiction.

B. **Liquid waste:** Mix all liquid asbestos-containing waste or asbestos contaminated waste with a bladeable material so that it forms a bladeable (non-liquid) form, and have the concurrence of the landfill operator prior to disposal.

C. **Load all adequately wetted Regulated Asbestos-Containing Material** in disposal bags or leak-tight containers. All materials are to be contained in one of the following:
1. **Two 6 mil (0.15 mm) disposal bags** or
2. **Two 6 mil (0.15 mm) disposal bags and a fiberboard drum** or
3. **Sealed steel drum** with no bag

D. **Protect interior of truck** or dumpster with Critical and Primary Barriers as described in Section “Temporary Enclosures”.

E. **Carefully load containerized waste** in fully enclosed dumpsters, trucks or other appropriate vehicles for transport. Exercise care before and during transport, to insure that no unauthorized persons have access to the material.

F. **Warning Signs:** During loading and unloading mark dumpsters, receptacles and vehicles with a sign complying with requirements of the EPA NESHAP regulation (40 CFR Part 61), in a manner and location that a person can read the following legend :

DANGER
ASBESTOS DUST HAZARD
CANCER AND LUNG DISEASE HAZARD
Authorized Personnel Only

G. **Do not store containerized materials outside of the Work Area**. Take containers from the Work Area directly to a sealed truck or dumpster.

H. **Do not transport disposal bagged materials on open trucks**. Label drums with same warning labels as bags. Uncontaminated drums may be reused. Treat drums that have been contaminated as Regulated Asbestos-Containing Material and dispose of in accordance with this specification.

I. **Advise the landfill** operator or processor, at least ten days in advance of transport, of the quantity of material to be delivered.

J. **At disposal site** unload containerized waste:

1. **At a disposal site**, sealed plastic bags may be carefully unloaded from the truck. If bags are broken or damaged, return to work site for rebagging. Clean entire truck and contents using procedures set forth in section Project Decontamination.

2. **At a processing site** truck and loading dock are arranged as a controlled work area and containerized waste is transferred to storage area by site personnel. All bags including broken ones will be transferred. Clean truck, using procedures set forth in section Project Decontamination.

K. **Retain receipts from landfill** or processor for materials disposed of.

L. **At completion of hauling** and disposal of each load submit copy of waste manifest, chain of custody form, and landfill receipt to Designer.

END OF SECTION - 02 82 35

SECTION 02 82 70 - CONTRACT CLOSEOUT - ASBESTOS ABATEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 2 Specification Sections, apply to this Section.

1.2 SUMMARY

A. **This Section includes** administrative and procedural requirements for contract closeout including, but not limited to, the following:

1. Inspection procedures.
2. Project record document submittal.
3. Submittal of warranties.
4. Final cleaning.

1.3 SUBSTANTIAL COMPLETION

A. **Preliminary Procedures:** Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.

5. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete.

a. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.

b. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.

6. Advise the Owner of pending insurance changeover requirements.

7. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.

8. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

9. Submit record drawings, maintenance manuals, final project photographs, damage or settlement surveys, property surveys, and similar final record information.

10. Make final changeover of permanent locks and transmit keys to the Owner. Advise the Owner's personnel of changeover in security provisions.

11. Complete startup testing of systems and instruction of the Owner's operation and maintenance personnel. Discontinue and remove temporary facilities from the site, along with mockups, construction tools, and similar elements.

12. Complete final cleanup requirements, including touch up painting.

13. Touch up and otherwise repair and restore marred, exposed finishes.

B. **Inspection Procedures:** On receipt of a request for inspection, the Designer will either proceed with inspection or advise the Contractor of unfilled requirements. The Designer will prepare the Certificate of Substantial Completion following inspection or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.

1. The Designer will repeat inspection when requested and assured that the Work is substantially complete.

2. Results of the completed inspection will form the basis of requirements for final acceptance.

1.4 FINAL ACCEPTANCE

A. **Preliminary Procedures:** Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.

1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and completed operations where required.

2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.

3. Submit a certified copy of the Designer's final inspection list of items to be completed or corrected, endorsed and dated by the Designer. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance and shall be endorsed and dated by the Designer.

4. Submit final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of Substantial Completion or when the Owner took possession of and assumed responsibility for corresponding elements of the Work.

5. Submit consent of surety to final payment.
6. Submit a final liquidated damages settlement statement.
7. Submit evidence of final, continuing insurance coverage complying with insurance requirements.

B. **Reinspection Procedure:** The Designer will reinspect the Work upon receipt of notice that the Work, including inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to the Designer.

1. Upon completion of reinspection, the Designer will prepare a certificate of final acceptance. If the Work is incomplete, the Designer will advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.

2. If necessary, reinspection will be repeated.

1.5 RECORD DOCUMENT SUBMITTALS

A. **General:** Do not use record documents for construction purposes. Protect record documents from deterioration and loss in a secure, fire-resistant location. Provide access to record documents for the Designer's reference during normal working hours.

B. **Record Drawings:** Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark which drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.

1. Mark record sets with red erasable pencil. Use other colors to distinguish between variations in separate categories of the Work.

2. Mark new information that is important to the Owner but was not shown on Contract Drawings or Shop Drawings.

3. Note related change-order numbers where applicable.

4. Organize record drawing sheets into manageable sets. Bind sets with durable-paper cover sheets; print suitable titles, dates, and other identification on the cover of each set.

C. **Record Specifications:** Maintain one complete copy of the Project Manual, including addenda. Include with the Project Manual one copy of other written construction documents, such as Change Orders and modifications issued in printed form during construction.

1. Mark these documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications.

2. Give particular attention to substitutions and selection of options and information on concealed construction that cannot otherwise be readily discerned later by direct observation.

3. Note related record drawing information and Product Data.

4. Upon completion of the Work, submit record Specifications to the Designer for the Owner's records.

D. **Record Product Data:** Maintain one copy of each Product Data submittal. Note related Change Orders and markup of record drawings and Specifications.

1. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site and from the manufacturer's installation instructions and recommendations.

2. Give particular attention to concealed products and portions of the Work that cannot otherwise be readily discerned later by direct observation.

3. Upon completion of markup, submit complete set of record Product Data to the Designer for the Owner's records.

E. **Miscellaneous Record Submittals:** Refer to other Specification Sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order. Identify miscellaneous records properly and bind or file, ready for continued use and reference. Submit to the Designer for the Owner's records.

All submittals required for project closeout shall be electronic format, latest version of Microsoft Word, Microsoft Excel, or Adobe Acrobat, and transmitted electronically (via email or CD-ROM).

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 FINAL CLEANING

A. **General:** The General Conditions require general cleaning during construction. Regular site cleaning is included in Division 1 Section "Construction Facilities and Temporary Controls." The cleaning in this Section is in addition to cleaning which is part of decontamination work. This section is intended to return the facility to the Owner in presentable condition.

B. **Cleaning:** Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion.

a. Remove labels that are not permanent labels.

b. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials.

c. Replace chipped or broken glass and other damaged transparent materials.

d. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.

e. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.

f. Clean the site, including landscape development areas, of rubbish, litter, and other foreign substances. Sweep paved areas broom clean; remove stains, spills, and other foreign deposits. Rake grounds that are neither paved nor planted to a smooth, even-textured surface.

C. **Removal of Protection:** Remove temporary protection and facilities installed for protection of the Work during construction.

D. **Compliance:** Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.

1. Where extra materials of value remain after completion of associated Work, they become the Owner's property. Dispose of these materials as directed by the Owner.

END OF SECTION 02 82 70

EMPLOYEE TRAINING:

List each person required to be trained under ***LAC 33:III.2721.A.1-3*** and for supervisors who direct workers who may disturb ACM. **Note:** all members of its custodial and maintenance staff who may work in a building that contains ACBM, whether or not they are required to disturb ACBM, shall receive **at least two hours of awareness training** within 60 days after commencement of employment; and staff who conduct any activities that will result in disturbance of 3 square or linear feet of ACBM shall receive **14 hours of additional training**. The following information must be provided for each employee trained. ***(LAC 33:III.2725.C)*** Attach behind Section G, Part I.

Name	Job Title	Date of Training Completed	Location of Training	Trainer/ Trainer Provider	Number of Hours Completed
See attached training sign in sheets					

Custodian In-Service 4/29/25

Location	School Name	Custodian Name Print	Signature
001	S P ARNETT MIDDLE		
002	BARBE ELEMENTARY		
003	A. M. BARBE HIGH	Tony Hall	
004	BELL CITY HIGH		
005	LEBLEU SETTLEMENT ELEMENTARY		
006	BRENTWOOD ELEMENTARY		
009	J.D. CLIFTON ELEMENTARY	TROY Davis	
010	COLLEGE OAKS ELEMENTARY		
011	D.A. COMBRE ELEMENTARY		
012	T.S. COOLEY ELEMENTARY		
013	DEQUINCY PRIMARY		
014	DEQUINCY HIGH	Alesia Hollie	Alesia Hollie
015	DEQUINCY MIDDLE		
016	DOLBY ELEMENTARY		
018	FAIRVIEW ELEMENTARY	Keishla Alvarez	Keishla Alvarez
019	FRASCH ELEMENTARY		
023	HENNING ELEMENTARY		
024	HENRY HEIGHTS ELEMENTARY	Jerry Anderson	Jerry Anderson
025	SAM HOUSTON HIGH	Larry Wirtz	Larry Wirtz
026	IOWA HIGH	Dwayne Mix	Dwayne Mix
027	J.J. JOHNSON ELEMENTARY	Matthew Arvie	Matthew Arvie
028	KAUFMAN ELEMENTARY		
029	KENNEDY ELEMENTARY		
030	E.K. KEY ELEMENTARY	Nichole Bernard	Nichole Bernard
031	L.C./BOSTON HIGH	Steven Crosse	Steven Crosse
033	LAGRANGE SENIOR HIGH	Robin Tezeno	Robin Tezeno
034	W.W. LEWIS MIDDLE		
035	LEBLANC MIDDLE		
036	MAPLEWOOD MIDDLE		
038	MOLO MIDDLE		
039	MOSS BLUFF ELEMENTARY		
040	MOSS BLUFF MIDDLE		
042	NELSON ELEMENTARY	Lohonna Comeaux	Lohonna Comeaux
043	OAK PARK ELEMENTARY		
044	OAK PARK MIDDLE		

Location	School Name	Custodian Name Print	Signature
045	CYPRESS COVE ELEM	Sandra Burke	Sandra Burke
046	PRIEN LAKE ELEMENTARY	Sadie Sonnier	Sadie Sonnier
050	ST. JOHN ELEMENTARY		
051	STARKS HIGH		
052	SULPHUR HIGH		
053	VINCENT SETTLEMENT		
054	R.W. VINCENT ELEMENTARY		
055	VINTON ELEMENTARY		
056	VINTON HIGH	Martin Payne	
057	VINTON MIDDLE		
058	WASHINGTON/MARION HIGH		
059	WATKINS ELEMENTARY	Melvin J. Davis	
060	J.I. WATSON MIDDLE		
061	PEARL WATSON ELEMENTARY	Arthur J. Thomas	
062	S.J. WELSH MIDDLE		
063	WESTERN HEIGHTS ELEMENTARY	Loretha Brignac	Loretha Brignac
064	WESTLAKE HIGH		
065	WESTWOOD ELEM		
066	FK WHITE MIDDLE		
067	RALPH WILSON ELEM		
068	GILLIS ELEMENTARY	Brenda Farque	
071	DROST SPECIAL SCHOOL		
073	BRENDA HUNTER HEADSTART CENTER	Lonei Murphy	
081	DEQUINCY ELEMENTARY	Alfreda J. Green	
082	MAPLEWOOD ELEMENTARY	Keagan Aitsworth	Keagan Aitsworth
126	IOWA MIDDLE SCHOOL		
152	SULPHUR HIGH 9TH GRADE CAMPUS	Jessie Vincent	
	Soed elementry	Jerry Anderson Jr	
	CPAS East	Terrance Bell	

Custodian In-Service 4/29/25

Location	School Name	Custodian Name Print	Signature
001	S P ARNETT MIDDLE	CARLTON MARTIN	Carlton Martin
002	BARBE ELEMENTARY	Fellows	
003	A. M. BARBE HIGH		
004	BELL CITY HIGH	Sherry Abshire	
005	LEBLEU SETTLEMENT ELEMENTARY		
006	BRENTWOOD ELEMENTARY		
009	J.D. CLIFTON ELEMENTARY	Patricia Hebert	
010	COLLEGE OAKS ELEMENTARY	Russell Blanchette IV	Russell Blanchette IV
011	D.A. COMBRE ELEMENTARY	Shurnetta Davis	S. Davis
012	T.S. COOLEY ELEMENTARY	Brenda Kaufman	Brenda Kaufman
013	DEQUINCY PRIMARY	Karen Burnett	Karen Burnett
014	DEQUINCY HIGH		
015	DEQUINCY MIDDLE	Ashley Clifton	
016	DOLBY ELEMENTARY	Linda Janury	Linda Jany
018	FAIRVIEW ELEMENTARY		
019	FRASCH ELEMENTARY		
023	HENNING ELEMENTARY		
024	HENRY HEIGHTS ELEMENTARY		
025	SAM HOUSTON HIGH		
026	IOWA HIGH		
027	J.J. JOHNSON ELEMENTARY		
028	KAUFMAN ELEMENTARY		
029	KENNEDY ELEMENTARY	Bijou Jones	BJ
030	E.K. KEY ELEMENTARY	DAVID GILLHORY	David Gillory
031	L.C./BOSTON HIGH		
033	LAGRANGE SENIOR HIGH		
034	W.W. LEWIS MIDDLE		
035	LEBLANC MIDDLE		
036	MAPLEWOOD MIDDLE	Bradley Greeley	
038	MOLO MIDDLE		
039	MOSS BLUFF ELEMENTARY	Meghan Jones	
040	MOSS BLUFF MIDDLE		
042	NELSON ELEMENTARY		
043	OAK PARK ELEMENTARY		
044	OAK PARK MIDDLE		

Location	School Name	Custodian Name Print	Signature
045	CYPRESS COVE ELEM		
046	PRIEN LAKE ELEMENTARY		
050	ST. JOHN ELEMENTARY		
051	STARKS HIGH		
052	SULPHUR HIGH	James Bud	
053	VINCENT SETTLEMENT	LaJavion Collins	LaJavion Collins
054	R.W. VINCENT ELEMENTARY	Brandy Hooks	Brandy Hooks
055	VINTON ELEMENTARY		
056	VINTON HIGH		
057	VINTON MIDDLE		
058	WASHINGTON/MARION HIGH	John L	
059	WATKINS ELEMENTARY	Melvin J. Davis	Melvin J. Davis
060	J.I. WATSON MIDDLE		
061	PEARL WATSON ELEMENTARY		
062	S.J. WELSH MIDDLE		
063	WESTERN HEIGHTS ELEMENTARY		
064	WESTLAKE HIGH	Tamra Bryce	
065	WESTWOOD ELEM	Jacqueline Pete	
066	FK WHITE MIDDLE	Allison Woodridge	
067	RALPH WILSON ELEM		
068	GILLIS ELEMENTARY		
071	DROST SPECIAL SCHOOL		
073	BRENDA HUNTER HEADSTART CENTER		
081	DEQUINCY ELEMENTARY	Catherine Marcantel	Catherine Marcantel
082	MAPLEWOOD ELEMENTARY	Breanna Wing	
126	IOWA MIDDLE SCHOOL	Ronnie Lartigue	Veronica Lartigue
152	SULPHUR HIGH 9TH GRADE CAMPUS		
	CW&A	Chevanne Lecky	
	APAS WEST/DRES	Herman Hoke	
	Tech Dept	Tony Griffin	Tony Griff
	J.I Watson Elec	Amanda Cooper	
	LaGrange		

Custodian In-Service 4/29/25

Location	School Name	Custodian Name Print	Signature
001	S P ARNETT MIDDLE		
002	BARBE ELEMENTARY	Henry Gatewood IV	Henry Gatewood IV
003	A. M. BARBE HIGH	Ayanna Smith	Ayanna Smith
004	BELL CITY HIGH		
005	LEBLEU SETTLEMENT ELEMENTARY	Michelle ONeal	Michelle ONeal
006	BRENTWOOD ELEMENTARY	Cory OBrien	Cory OBrien
009	J.D. CLIFTON ELEMENTARY		
010	COLLEGE OAKS ELEMENTARY	Jennifer Simon	Jennifer Simon
011	D.A. COMBRE ELEMENTARY		
012	T.S. COOLEY ELEMENTARY		
013	DEQUINCY PRIMARY		
014	DEQUINCY HIGH		
015	DEQUINCY MIDDLE		
016	DOLBY ELEMENTARY	Jonathan Walker	
018	FAIRVIEW ELEMENTARY		
019	FRASCH ELEMENTARY	Brandy Madison	Brandy Madison
023	HENNING ELEMENTARY	Peggy VINCENT	Peggy Vincent
024	HENRY HEIGHTS ELEMENTARY		
025	SAM HOUSTON HIGH	Mary Dove	Mary Dove
026	IOWA HIGH		
027	J.J. JOHNSON ELEMENTARY		
028	KAUFMAN ELEMENTARY		
029	KENNEDY ELEMENTARY	Cathy Patton	Cathy Patton
030	E.K. KEY ELEMENTARY		
031	L.C./BOSTON HIGH		
033	LAGRANGE SENIOR HIGH		
034	W.W. LEWIS MIDDLE		
035	LEBLANC MIDDLE	Ida Laughlin	Bridget Jones
036	MAPLEWOOD MIDDLE		
038	MOLO MIDDLE	Donna Hebert	Donna Hebert
039	MOSS BLUFF ELEMENTARY	Serita Jean	Serita Jean
040	MOSS BLUFF MIDDLE	KARL KLINEFELTER	Karl Klinefelter
042	NELSON ELEMENTARY		
043	OAK PARK ELEMENTARY	Felicia Wilkins	Felicia Wilkins
044	OAK PARK MIDDLE	Thea Edwards	Thea Edwards

Location	School Name	Custodian Name Print	Signature
045	CYPRESS COVE ELEM	Shanel Durrett	Shanel Durrett
046	PRIEN LAKE ELEMENTARY		
050	ST. JOHN ELEMENTARY	Kirsten Jordan	Kirsten Jordan
051	STARKS HIGH	Tommy Breaux	
052	SULPHUR HIGH		
053	VINCENT SETTLEMENT	Veronica Hardy	Veronica Hardy
054	R.W. VINCENT ELEMENTARY		
055	VINTON ELEMENTARY	Kaytlin Short	Kaytlin Short
056	VINTON HIGH	Michael Payne	
057	VINTON MIDDLE		
058	WASHINGTON/MARION HIGH		
059	WATKINS ELEMENTARY	Melvin J. Davis	Melvin J. Davis
060	J.I. WATSON MIDDLE		
061	PEARL WATSON ELEMENTARY	Ronald Reneau	Ronald Reneau
062	S.J. WELSH MIDDLE	Carlene Marshall	
063	WESTERN HEIGHTS ELEMENTARY		
064	WESTLAKE HIGH		
065	WESTWOOD ELEM	Bobby Brown	Bobby Brown
066	FK WHITE MIDDLE		
067	RALPH WILSON ELEM	Danivio Griffin	
068	GILLIS ELEMENTARY		
071	DROST SPECIAL SCHOOL		
073	BRENDA HUNTER HEADSTART CENTER		
081	DEQUINCY ELEMENTARY		
082	MAPLEWOOD ELEMENTARY		
126	IOWA MIDDLE SCHOOL	Justin LeJeune	
152	SULPHUR HIGH 9TH GRADE CAMPUS		
	Starks High	Bucky Foster	Bucky Foster
	LCBA	Ronald Cormier	Ronald Cormier
	CSI	Keithen Ceasar	Keithen Ceasar

MMS

Kristi Istre

Custodian In-Service 8/28/24

Location	School Name	Custodian Name Print	Signature
001	S P ARNETT MIDDLE		
002	BARBE ELEMENTARY		
003	A. M. BARBE HIGH		
004	BELL CITY HIGH	Sherry Ardshire	
005	LEBLEU SETTLEMENT ELEMENTARY		
006	BRENTWOOD ELEMENTARY		
009	J.D. CLIFTON ELEMENTARY		
010	COLLEGE OAKS ELEMENTARY		
011	D.A. COMBRE ELEMENTARY		
012	T.S. COOLEY ELEMENTARY	Brenda Kaufman	
013	DEQUINCY PRIMARY		
014	DEQUINCY HIGH	Alesia Hollie	
015	DEQUINCY MIDDLE		
016	DOLBY ELEMENTARY	Jonathan Walker	
018	FAIRVIEW ELEMENTARY		
019	FRASCH ELEMENTARY		
023	HENNING ELEMENTARY		
024	HENRY HEIGHTS ELEMENTARY		
025	SAM HOUSTON HIGH		
026	IOWA HIGH		
027	J.J. JOHNSON ELEMENTARY		
028	KAUFMAN ELEMENTARY		
029	KENNEDY ELEMENTARY		
030	E.K. KEY ELEMENTARY		
031	L.C./BOSTON HIGH		
033	LAGRANGE SENIOR HIGH	Robin Tezeno	
034	W.W. LEWIS MIDDLE		
035	LEBLANC MIDDLE		
036	MAPLEWOOD MIDDLE		
038	MOLO MIDDLE		
039	MOSS BLUFF ELEMENTARY		
040	MOSS BLUFF MIDDLE		
042	NELSON ELEMENTARY		
043	OAK PARK ELEMENTARY		
044	OAK PARK MIDDLE		

LeBleu Settlement Michelle O'Neal

Location	School Name	Custodian Name Print	Signature
045	CYPRESS COVE ELEM	GINA WATSON	Gina Watson
046	PRIEN LAKE ELEMENTARY	sadie sonnier	Sadie Sonnier
050	ST. JOHN ELEMENTARY		
051	STARKS HIGH		
052	SULPHUR HIGH		
053	VINCENT SETTLEMENT		
054	R.W. VINCENT ELEMENTARY		
055	VINTON ELEMENTARY		
056	VINTON HIGH	Michael Payne Martin Payne	Martin Payne
057	VINTON MIDDLE	TESSE Williams LA Tonya Hawkins	Tonya Hawkins Tesse Williams
058	WASHINGTON/MARION HIGH		
059	WATKINS ELEMENTARY	Chris Dual	
060	J.I. WATSON MIDDLE	Amanda Richard	
061	PEARL WATSON ELEMENTARY		
062	S.J. WELSH MIDDLE		
063	WESTERN HEIGHTS ELEMENTARY		
064	WESTLAKE HIGH	Jason Thibodeaux	
065	WESTWOOD ELEM		
066	FK WHITE MIDDLE	Allison Woolridge	
067	RALPH WILSON ELEM		
068	GILLIS ELEMENTARY		
071	DROST SPECIAL SCHOOL		
073	BRENDA HUNTER HEADSTART CENTER	Lenell Murphy	
081	DEQUINCY ELEMENTARY	Alfreda J. Green	Alfreda Green
082	MAPLEWOOD ELEMENTARY		
126	IOWA MIDDLE SCHOOL		
152	SULPHUR HIGH 9TH GRADE CAMPUS		
	Technology center	Tony Griffin	Tony Griffin
	college J.I.	Jason minor	Jason minor
	College st	Kevin Anderson	Kevin Anderson
	SHS 9th Grade	Kathy Faulk	Kathy Faulk

Custodian In-Service 8/28/24

Location	School Name	Custodian Name Print	Signature
001	S P ARNETT MIDDLE		
002	BARBE ELEMENTARY		
003	A. M. BARBE HIGH		
004	BELL CITY HIGH		
005	LEBLEU SETTLEMENT ELEMENTARY		
006	BRENTWOOD ELEMENTARY		
009	J.D. CLIFTON ELEMENTARY		
010	COLLEGE OAKS ELEMENTARY		
011	D.A. COMBRE ELEMENTARY		
012	T.S. COOLEY ELEMENTARY		
013	DEQUINCY PRIMARY	Karen Burnett	Karen Burnett
014	DEQUINCY HIGH		
015	DEQUINCY MIDDLE	Melissa Morvant	Melissa Morvant
016	DOLBY ELEMENTARY		
018	FAIRVIEW ELEMENTARY		
019	FRASCH ELEMENTARY		
023	HENNING ELEMENTARY		
024	HENRY HEIGHTS ELEMENTARY		
025	SAM HOUSTON HIGH		
026	IOWA HIGH		
027	J.J. JOHNSON ELEMENTARY		
028	KAUFMAN ELEMENTARY		
029	KENNEDY ELEMENTARY		
030	E.K. KEY ELEMENTARY		
031	L.C./BOSTON HIGH		
033	LAGRANGE SENIOR HIGH		
034	W.W. LEWIS MIDDLE		
035	LEBLANC MIDDLE		
036	MAPLEWOOD MIDDLE		
038	MOLO MIDDLE		
039	MOSS BLUFF ELEMENTARY		
040	MOSS BLUFF MIDDLE		
042	NELSON ELEMENTARY		
043	OAK PARK ELEMENTARY		
044	OAK PARK MIDDLE		

Location	School Name	Custodian Name Print	Signature
045	CYPRESS COVE ELEM	Sandra Burke	Sandra Burke
046	PRIEN LAKE ELEMENTARY		
050	ST. JOHN ELEMENTARY	Kirsten Jordan	Kristen Jorden
051	STARKS HIGH		
052	SULPHUR HIGH		
053	VINCENT SETTLEMENT	LaSavion collins	LaSavion collins
054	R.W. VINCENT ELEMENTARY		
055	VINTON ELEMENTARY	Kaytlin Short	
056	VINTON HIGH		
057	VINTON MIDDLE		
058	WASHINGTON/MARION HIGH		
059	WATKINS ELEMENTARY		
060	J.I. WATSON MIDDLE	TAMMY Gaspard	Amanda Gaspard
061	PEARL WATSON ELEMENTARY		
062	S.J. WELSH MIDDLE		
063	WESTERN HEIGHTS ELEMENTARY		
064	WESTLAKE HIGH		
065	WESTWOOD ELEM	Jacqueline B. Pete	
066	FK WHITE MIDDLE		
067	RALPH WILSON ELEM		
068	GILLIS ELEMENTARY	Brantley Forque	Brantley Forque
071	DROST SPECIAL SCHOOL		
073	BRENDA HUNTER HEADSTART CENTER		
081	DEQUINCY ELEMENTARY		
082	MAPLEWOOD ELEMENTARY		
126	IOWA MIDDLE SCHOOL		
152	SULPHUR HIGH 9TH GRADE CAMPUS		
	CW & A	Chevonne Ladray	
	Sped elementry	Jerry Anderson	
	J. D, Clinton	TROY DAVIS	
	C + F	Seremie Grallien	

Custodian In-Service 8/28/24

Location	School Name	Custodian Name Print	Signature
001	S P ARNETT MIDDLE		
002	BARBE ELEMENTARY	Norman Ceasar	Norman Ceasar
003	A. M. BARBE HIGH	Brandal Coleman	Brandal Coleman
004	BELL CITY HIGH		
005	LEBLEU SETTLEMENT ELEMENTARY		
006	BRENTWOOD ELEMENTARY		
009	J.D. CLIFTON ELEMENTARY	TROY DAVIS	Troy Davis
010	COLLEGE OAKS ELEMENTARY		
011	D.A. COMBRE ELEMENTARY		
012	T.S. COOLEY ELEMENTARY		
013	DEQUINCY PRIMARY		
014	DEQUINCY HIGH		
015	DEQUINCY MIDDLE		
016	DOLBY ELEMENTARY		
018	FAIRVIEW ELEMENTARY	Rox Ann Clark	Rox Ann Clark
019	FRASCH ELEMENTARY		
023	HENNING ELEMENTARY	Pop VINCENT	Pop Vincent
024	HENRY HEIGHTS ELEMENTARY		
025	SAM HOUSTON HIGH	Mary Dove	Mary Dove
026	IOWA HIGH		
027	J.J. JOHNSON ELEMENTARY		Vanessa P. Davis
028	KAUFMAN ELEMENTARY		
029	KENNEDY ELEMENTARY		
030	E.K. KEY ELEMENTARY		
031	L.C./BOSTON HIGH		
033	LAGRANGE SENIOR HIGH	Russell Burks	Russell Burks
034	W.W. LEWIS MIDDLE		
035	LEBLANC MIDDLE		
036	MAPLEWOOD MIDDLE	Ronald J Hollie	
038	MOLO MIDDLE		
039	MOSS BLUFF ELEMENTARY	Serita M Jones	Serita Jones
040	MOSS BLUFF MIDDLE		
042	NELSON ELEMENTARY		
043	OAK PARK ELEMENTARY	Brandi Rosamore	Brandi Rosamore
044	OAK PARK MIDDLE	Theo Edwards	Theo Edwards

Location	School Name	Custodian Name Print	Signature
045	CYPRESS COVE ELEM	Shanda Durre	Shanda Durre
046	PRIEN LAKE ELEMENTARY		
050	ST. JOHN ELEMENTARY		
051	STARKS HIGH		
052	SULPHUR HIGH	James Bruce Price	James B Price
053	VINCENT SETTLEMENT	Veronica Hardy	Veronica Hardy
054	R.W. VINCENT ELEMENTARY		
055	VINTON ELEMENTARY		
056	VINTON HIGH		
057	VINTON MIDDLE		
058	WASHINGTON/MARION HIGH	John L WM	
059	WATKINS ELEMENTARY		
060	J.I. WATSON MIDDLE		
061	PEARL WATSON ELEMENTARY	Rivitt M. Thomas	
062	S.J. WELSH MIDDLE		
063	WESTERN HEIGHTS ELEMENTARY	Loretha Briggs	Loretha Briggs
064	WESTLAKE HIGH		
065	WESTWOOD ELEM		
066	FK WHITE MIDDLE		
067	RALPH WILSON ELEM		
068	GILLIS ELEMENTARY		
071	DROST SPECIAL SCHOOL		
073	BRENDA HUNTER HEADSTART CENTER		
081	DEQUINCY ELEMENTARY		
082	MAPLEWOOD ELEMENTARY		
126	IOWA MIDDLE SCHOOL		
152	SULPHUR HIGH 9TH GRADE CAMPUS		
	Positive Connection	Jennifer Flores	
	CPAS EAST	Sharon Henry	Sharon Henry
	C&I	Keithen Ceasar	Keithen Ceasar
	CPAS WEST/LAKE DROST	HERMAN HENRY	

Custodian In-Service 8/30/2023

Location	School Name	Custodian Name Print	Signature
001	S P ARNETT MIDDLE		
002	BARBE ELEMENTARY		
003	A. M. BARBE HIGH		
004	BELL CITY HIGH	Sherry Abshire	Sherry Abshire
005	LEBLEU SETTLEMENT ELEMENTARY	Michelle ONeal	Michelle ONeal
006	BRENTWOOD ELEMENTARY	Ronald Celestine	Ronald Celestine
009	J.D. CLIFTON ELEMENTARY		
010	COLLEGE OAKS ELEMENTARY		
011	D.A. COMBRE ELEMENTARY		
012	T.S. COOLEY ELEMENTARY		
013	DEQUINCY PRIMARY		
014	DEQUINCY HIGH	Alesia Hollie	Alesia Hollie
015	DEQUINCY MIDDLE		
016	DOLBY ELEMENTARY	Wendy Quinones	Wendy Quinones
018	FAIRVIEW ELEMENTARY		
019	FRASCH ELEMENTARY		
023	HENNING ELEMENTARY		
024	HENRY HEIGHTS ELEMENTARY		
025	SAM HOUSTON HIGH	Mary Dove	Mary Dove
026	IOWA HIGH		
027	J.J. JOHNSON ELEMENTARY		
028	KAUFMAN ELEMENTARY	Shonna Benoit	Shonna Benoit
029	KENNEDY ELEMENTARY		
030	E.K. KEY ELEMENTARY		
031	L.C./BOSTON HIGH	Ronald Cornelix	Ronald Cornelix
033	LAGRANGE SENIOR HIGH		
034	W.W. LEWIS MIDDLE	Gentesa Stetter	gstetter
035	LEBLANC MIDDLE	Lauren Tenas	Lauren Tenas
036	MAPLEWOOD MIDDLE		
038	MOLO MIDDLE	Donald Hebert	Donald Hebert
039	MOSS BLUFF ELEMENTARY		
040	MOSS BLUFF MIDDLE		
042	NELSON ELEMENTARY		
043	OAK PARK ELEMENTARY		
044	OAK PARK MIDDLE		
045	CYPRESS COVE ELEM	Sandra Burke	Sandra Burke

Location	School Name	Custodian Name Print	Signature
046	PRIEN LAKE ELEMENTARY		
050	ST. JOHN ELEMENTARY		
051	STARKS HIGH		
052	SULPHUR HIGH		
053	VINCENT SETTLEMENT		
054	R.W. VINCENT ELEMENTARY		
055	VINTON ELEMENTARY	Marah Gormley	M Gormley
056	VINTON HIGH		
057	VINTON MIDDLE		
058	WASHINGTON/MARION HIGH	[illegible]	
059	WATKINS ELEMENTARY		
060	J.I. WATSON MIDDLE	Tammy Gaspard	Tammy Gaspard
061	PEARL WATSON ELEMENTARY		
062	S.J. WELSH MIDDLE		
063	WESTERN HEIGHTS ELEMENTARY		
064	WESTLAKE HIGH		
065	WESTWOOD ELEM		
066	FK WHITE MIDDLE	[illegible]	Scott Eastman
067	RALPH WILSON ELEM		
068	GILLIS ELEMENTARY	Brantley Forgue	Brantley Forgue
071	DROST SPECIAL SCHOOL		
073	BRENDA HUNTER HEADSTART CENTER		
081	DEQUINCY ELEMENTARY		
082	MAPLEWOOD ELEMENTARY		
126	IOWA MIDDLE SCHOOL		
152	SULPHUR HIGH 9TH GRADE CAMPUS	Lena Chenier	Lena Chenier
	Tech center	Tony Griffin	Tony Griffin
	C-I	Keither Cooper	Keither Cooper

Custodian In-Service 8/30/2023

Location	School Name	Custodian Name Print	Signature
001	S P ARNETT MIDDLE	Leslie Beard	Leslie Beard
002	BARBE ELEMENTARY		
003	A. M. BARBE HIGH		
004	BELL CITY HIGH		
005	LEBLEU SETTLEMENT ELEMENTARY		
006	BRENTWOOD ELEMENTARY		
009	J.D. CLIFTON ELEMENTARY	Patricia Hebert	Patricia Hebert
010	COLLEGE OAKS ELEMENTARY	Jennifer Simon	Jennifer Simon
011	D.A. COMBRE ELEMENTARY		
012	T.S. COOLEY ELEMENTARY		
013	DEQUINCY PRIMARY	Karen Burnett	Karen Burnett
014	DEQUINCY HIGH		
015	DEQUINCY MIDDLE	Melissa Morvant	Melissa Morvant
016	DOLBY ELEMENTARY		
018	FAIRVIEW ELEMENTARY		
019	FRASCH ELEMENTARY	Maria Sabur	Cindy Singleton
023	HENNING ELEMENTARY	Chelsey Gaillory	Chelsey Gaillory
024	HENRY HEIGHTS ELEMENTARY	Jamy Lindsey	Jeffrey Anderson
025	SAM HOUSTON HIGH	Pauline Baker	Pauline Baker
026	IOWA HIGH		
027	J.J. JOHNSON ELEMENTARY		
028	KAUFMAN ELEMENTARY		
029	KENNEDY ELEMENTARY		
030	E.K. KEY ELEMENTARY	Michele Bernard Renee Burke	Michele Bernard
031	L.C./BOSTON HIGH		
033	LAGRANGE SENIOR HIGH	Donald Winters	Donald Winters
034	W.W. LEWIS MIDDLE	Tera Walker	Tera Walker
035	LEBLANC MIDDLE		
036	MAPLEWOOD MIDDLE	Kenneth Cocon	Kenneth Cocon
038	MOLO MIDDLE		
039	MOSS BLUFF ELEMENTARY		
040	MOSS BLUFF MIDDLE		
042	NELSON ELEMENTARY		
043	OAK PARK ELEMENTARY		
044	OAK PARK MIDDLE		
045	CYPRESS COVE ELEM	Sharla Durrett	Sharla Durrett

Custodian In-Service 8/30/2023

Location	School Name	Custodian Name Print	Signature
001	S P ARNETT MIDDLE	Carlton Martin	Carlton Martin
002	BARBE ELEMENTARY		
003	A. M. BARBE HIGH		
004	BELL CITY HIGH		
005	LEBLEU SETTLEMENT ELEMENTARY		
006	BRENTWOOD ELEMENTARY		
009	J.D. CLIFTON ELEMENTARY		
010	COLLEGE OAKS ELEMENTARY	Russell J Blanchette	Russell J Blanchette
011	D.A. COMBRE ELEMENTARY		
012	T.S. COOLEY ELEMENTARY	Brenda Kaufman	Brenda Kaufman
013	DEQUINCY PRIMARY		
014	DEQUINCY HIGH		
015	DEQUINCY MIDDLE		
016	DOLBY ELEMENTARY		
018	FAIRVIEW ELEMENTARY		
019	FRASCH ELEMENTARY		
023	HENNING ELEMENTARY		
024	HENRY HEIGHTS ELEMENTARY		
025	SAM HOUSTON HIGH	Henry Eatenwood	Henry Eatenwood
026	IOWA HIGH		
027	J.J. JOHNSON ELEMENTARY		
028	KAUFMAN ELEMENTARY		
029	KENNEDY ELEMENTARY	Stephanie Patterson	Stephanie Patterson
030	E.K. KEY ELEMENTARY		
031	L.C./BOSTON HIGH		
033	LAGRANGE SENIOR HIGH		
034	W.W. LEWIS MIDDLE		
035	LEBLANC MIDDLE		
036	MAPLEWOOD MIDDLE		
038	MOLO MIDDLE		
039	MOSS BLUFF ELEMENTARY	Mary A Jarvis	
040	MOSS BLUFF MIDDLE	Karl Klinefelter	
042	NELSON ELEMENTARY	Lohonna Comeaux	Lohonna Comeaux
043	OAK PARK ELEMENTARY	Felicious Wilkins	Felicious Wilkins
044	OAK PARK MIDDLE	[illegible]	Glen Edwards
045	CYPRESS COVE ELEM		

Location	School Name	Custodian Name Print	Signature
046	PRIEN LAKE ELEMENTARY		
050	ST. JOHN ELEMENTARY	Kirsten Jordan	Kirsten Jordan
051	STARKS HIGH		
052	SULPHUR HIGH		
053	VINCENT SETTLEMENT		
054	R.W. VINCENT ELEMENTARY		
055	VINTON ELEMENTARY		
056	VINTON HIGH		
057	VINTON MIDDLE	[illegible]	Bethany Brandt
058	WASHINGTON/MARION HIGH		
059	WATKINS ELEMENTARY		
060	J.I. WATSON MIDDLE	Amanda M Richard	Amanda M Richard
061	PEARL WATSON ELEMENTARY		
062	S.J. WELSH MIDDLE	Carrie Tezeno	Freddie Neal
063	WESTERN HEIGHTS ELEMENTARY	Loretha Brignac	Loretha Brignac
064	WESTLAKE HIGH		
065	WESTWOOD ELEM		
066	FK WHITE MIDDLE		
067	RALPH WILSON ELEM		
068	GILLIS ELEMENTARY		
071	DROST SPECIAL SCHOOL		
073	BRENDA HUNTER HEADSTART CENTER	Lenell Murphy	
081	DEQUINCY ELEMENTARY		
082	MAPLEWOOD ELEMENTARY		
126	IOWA MIDDLE SCHOOL	Ronnie Lartigue	Ronnie Lartigue
152	SULPHUR HIGH 9TH GRADE CAMPUS	Alundia Moore	Alundia Moore
	Pearl Watson Elem	Capol Dennis	Capol Dennis
	T. H. Watkins Elem	Chris Lund	Chris Lund
	Iowa Middle School	Veronica Joseph	Veronica Joseph
	Positive Connection	Jennifer Flores	Jennifer Flores
	Keen Academy	Keen Academy	Keen Academy
	Assessment Center	Marie Reed	Marie Reed

Location	School Name	Custodian Name Print	Signature
046	PRIEN LAKE ELEMENTARY		
050	ST. JOHN ELEMENTARY	Wilfred Semien	
051	STARKS HIGH	David Wooster	
052	SULPHUR HIGH		
053	VINCENT SETTLEMENT		
054	R.W. VINCENT ELEMENTARY		
055	VINTON ELEMENTARY		
056	VINTON HIGH	Martin Payne	
057	VINTON MIDDLE		
058	WASHINGTON/MARION HIGH	Dedrick Jones	
059	WATKINS ELEMENTARY		
060	J.I. WATSON MIDDLE		
061	PEARL WATSON ELEMENTARY	Anthony Thomas	
062	S.J. WELSH MIDDLE		
063	WESTERN HEIGHTS ELEMENTARY		
064	WESTLAKE HIGH		
065	WESTWOOD ELEM	Jacqueline B. Pete	
066	FK WHITE MIDDLE		
067	RALPH WILSON ELEM	Earline Rieger	
068	GILLIS ELEMENTARY		
071	DROST SPECIAL SCHOOL	Herman Hoop	
073	BRENDA HUNTER HEADSTART CENTER		
081	DEQUINCY ELEMENTARY	Alfreda J Green	
082	MAPLEWOOD ELEMENTARY		
126	IOWA MIDDLE SCHOOL	Joseph Major	
152	SULPHUR HIGH 9TH GRADE CAMPUS	~~Felicia Jones~~	
	Sped Elementry	Jerry Anderson	
152	SHS 9th Grade	Kathy Faulk	
	CWA	Charles WED	

Custodian In-Service 8/27/2025

Location	School Name	Custodian Name Print	Signature
001	S P ARNETT MIDDLE		
002	BARBE ELEMENTARY	Henry Gatewood IV	Henry Gatewood IV
003	A. M. BARBE HIGH	Maxine Malinchak	M. Malinchak
004	BELL CITY HIGH	Sherry Abshire	Sherry Abshire
005	LEBLEU SETTLEMENT ELEMENTARY		
006	BRENTWOOD ELEMENTARY	Cory O'Brien Ronald Celestine	Cory O'Brien
009	J.D. CLIFTON ELEMENTARY		
010	COLLEGE OAKS ELEMENTARY	Russell J Blanchette IV	Russell J Blanchette IV
011	D.A. COMBRE ELEMENTARY	Rose Blue	Rose Blue
012	T.S. COOLEY ELEMENTARY	TINA BREAUX	Tina Breaux
013	DEQUINCY PRIMARY		
014	DEQUINCY HIGH	JOHN W JONES	John W Jones
015	DEQUINCY MIDDLE		
016	DOLBY ELEMENTARY		
018	FAIRVIEW ELEMENTARY		
019	FRASCH ELEMENTARY	Wendy Quiniones	Wendy Quiniones
023	HENNING ELEMENTARY		
024	HENRY HEIGHTS ELEMENTARY	Jonathan Walker	
025	SAM HOUSTON HIGH	Mary Dove	Mary Dove
026	IOWA HIGH		
027	J.J. JOHNSON ELEMENTARY	Matthew Arvie	Matthew Arvie
028	KAUFMAN ELEMENTARY		
029	KENNEDY ELEMENTARY	CHARLES PETERSON	
030	E.K. KEY ELEMENTARY	DAVID GUILLORY	
031	L.C./BOSTON HIGH		
033	LAGRANGE SENIOR HIGH		
034	W.W. LEWIS MIDDLE	Angela Lassabe Deborah White	Alassabe Deborah White
035	LEBLANC MIDDLE		
036	MAPLEWOOD MIDDLE	Kristi Istre	Kristi Istre
038	MOLO MIDDLE		
039	MOSS BLUFF ELEMENTARY	MARY ANN Toms	
040	MOSS BLUFF MIDDLE	Kandora Fontenot	Kandora Fontenot
042	NELSON ELEMENTARY	Rhonda Comeaux	Rhonda Comeaux
043	OAK PARK ELEMENTARY	Shyvonda Scott	Shyvonda Scott
044	OAK PARK MIDDLE	Theo Edwards	Theo Edwards

Location	School Name	Custodian Name Print	Signature
045	CYPRESS COVE ELEM		
046	PRIEN LAKE ELEMENTARY		
050	ST. JOHN ELEMENTARY		
051	STARKS HIGH		
052	SULPHUR HIGH		
053	VINCENT SETTLEMENT	Lafavion Collins	Lafavion Collins
054	R.W. VINCENT ELEMENTARY	Charles Metcalf	
055	VINTON ELEMENTARY		
056	VINTON HIGH		
057	VINTON MIDDLE		
058	WASHINGTON/MARION HIGH		
059	WATKINS ELEMENTARY		
060	J.I. WATSON MIDDLE		
061	PEARL WATSON ELEMENTARY	Charlene Marshall	
062	S.J. WELSH MIDDLE	Loretha Brignac	
063	WESTERN HEIGHTS ELEMENTARY	Lauren Collier	
064	WESTLAKE HIGH		
065	WESTWOOD ELEM	Courtney Carlins	
066	FK WHITE MIDDLE		
067	RALPH WILSON ELEM		
068	GILLIS ELEMENTARY		
071	DROST SPECIAL SCHOOL		
073	BRENDA HUNTER HEADSTART CENTER	Cenell Murphy	
081	DEQUINCY ELEMENTARY		
082	MAPLEWOOD ELEMENTARY	Tina Fullick	
126	IOWA MIDDLE SCHOOL	Veronica Lartigue	
152	SULPHUR HIGH ~~9TH~~ GRADE CAMPUS	James Bias	
	Sped elementary	Jerry Anderson	
	~~Sulphur High~~	~~Brandi Vital~~	
012	T.S. Cooley Elementary	Brandi Vital	

Custodian In-Service 8/27/2025

Location	School Name	Custodian Name Print	Signature
001	S P ARNETT MIDDLE	Kesha McCoy	Kesha McCoy
002	BARBE ELEMENTARY	F Meadows	
003	A. M. BARBE HIGH	Waltresia Collins Amorian Mitchell	W. Collins amorian mitchell
004	BELL CITY HIGH		
005	LEBLEU SETTLEMENT ELEMENTARY		
006	BRENTWOOD ELEMENTARY		
009	J.D. CLIFTON ELEMENTARY	Treg Davis	Treg Davis
010	COLLEGE OAKS ELEMENTARY	Jennifer Simon	Jennifer Simon
011	D.A. COMBRE ELEMENTARY	Shurnette Davis	S. Davis
012	T.S. COOLEY ELEMENTARY		
013	DEQUINCY PRIMARY	Regina Franks	Regina Franks
014	DEQUINCY HIGH		
015	DEQUINCY MIDDLE	Ashley Clifton	
016	DOLBY ELEMENTARY	Renee Scott	Renee Scott
018	FAIRVIEW ELEMENTARY		
019	FRASCH ELEMENTARY		
023	HENNING ELEMENTARY		
024	HENRY HEIGHTS ELEMENTARY		
025	SAM HOUSTON HIGH		
026	IOWA HIGH		
027	J.J. JOHNSON ELEMENTARY		
028	KAUFMAN ELEMENTARY		
029	KENNEDY ELEMENTARY		
030	E.K. KEY ELEMENTARY	Missy Baker (Eurena)	Missy Baker
031	L.C./BOSTON HIGH		
033	LAGRANGE SENIOR HIGH		
034	W.W. LEWIS MIDDLE		
035	LEBLANC MIDDLE	Jon Hardy	Jon Hardy
036	MAPLEWOOD MIDDLE		
038	MOLO MIDDLE Donald Hebert	Barry Lowson	Barry Lowson
039	MOSS BLUFF ELEMENTARY	Christopher Simeon	Christopher Simeon
040	MOSS BLUFF MIDDLE		
042	NELSON ELEMENTARY		
043	OAK PARK ELEMENTARY		
044	OAK PARK MIDDLE		

* Roseet — Chevonne Leday
Positive Connection — Jennifers Floor

Location	School Name	Custodian Name Print	Signature
045	CYPRESS COVE ELEM	Sharla Durrett	Sharla Durrett
046	PRIEN LAKE ELEMENTARY	Sadie Sonnier	Sadie Sonnier
050	ST. JOHN ELEMENTARY	Kirsten Jordan	Kirsten Jordan
051	STARKS HIGH	Shelia Smith	Shelia Smith
052	SULPHUR HIGH		
053	VINCENT SETTLEMENT	Veronica Hardy	Veronica Hardy
054	R.W. VINCENT ELEMENTARY	Caroline Williams	Caroline Williams
055	VINTON ELEMENTARY		
056	VINTON HIGH	Michael Payne	
057	VINTON MIDDLE		
058	WASHINGTON/MARION HIGH	John	John
059	WATKINS ELEMENTARY		
060	J.I. WATSON MIDDLE		
061	PEARL WATSON ELEMENTARY	Ronald Renley	Ronald Renley
062	S.J. WELSH MIDDLE		
063	WESTERN HEIGHTS ELEMENTARY		
064	WESTLAKE HIGH		Ribbons Rubin
065	WESTWOOD ELEM		
066	FK WHITE MIDDLE	Patricia Bordelon	
067	RALPH WILSON ELEM	Pat Hebert	Pat Hebert
068	GILLIS ELEMENTARY	Brantley Forgue	Brantley Forgue
071	DROST SPECIAL SCHOOL		
073	BRENDA HUNTER HEADSTART CENTER		
081	DEQUINCY ELEMENTARY	Faylee Pickering	Faylee Pickering
082	MAPLEWOOD ELEMENTARY		
126	IOWA MIDDLE SCHOOL	Ronnie Lartigue	Ronnie Lartigue
152	SULPHUR HIGH 9TH GRADE CAMPUS	Kathy Faulk	Kathy Faulk
	CPAS East	Terrone Bell	
	Technology Dept	Tony Griffin	Tony Griffin

Custodian In-Service 8/27/2025

Location	School Name	Custodian Name Print	Signature
001	S P ARNETT MIDDLE	Leslie Reed	Leslie Reed
002	BARBE ELEMENTARY		
003	A. M. BARBE HIGH		
004	BELL CITY HIGH		
005	LEBLEU SETTLEMENT ELEMENTARY	Michelle ONeal	Michelle ONeal
006	BRENTWOOD ELEMENTARY		
009	J.D. CLIFTON ELEMENTARY	Nicole Moore	Nicole Moore
010	COLLEGE OAKS ELEMENTARY		
011	D.A. COMBRE ELEMENTARY		
012	T.S. COOLEY ELEMENTARY		
013	DEQUINCY PRIMARY	Karen Burnitt	Karen Burnitt
014	DEQUINCY HIGH		
015	DEQUINCY MIDDLE	Jamie Rainwater	Jamie Rainwater
016	DOLBY ELEMENTARY		
018	FAIRVIEW ELEMENTARY		
019	FRASCH ELEMENTARY		
023	HENNING ELEMENTARY	Pop Vinnett	Flora Lara
024	HENRY HEIGHTS ELEMENTARY		
025	SAM HOUSTON HIGH	Ashley Wilder	Ashley Wilder
026	IOWA HIGH		
027	J.J. JOHNSON ELEMENTARY		
028	KAUFMAN ELEMENTARY	Jessica Turner	Jessica Turner
029	KENNEDY ELEMENTARY		
030	E.K. KEY ELEMENTARY	Nichole Bernard	Nichole Bernard
031	L.C./BOSTON HIGH		
033	LAGRANGE SENIOR HIGH		
034	W.W. LEWIS MIDDLE		
035	LEBLANC MIDDLE		
036	MAPLEWOOD MIDDLE	Carolyn Benoit	Carolyn Benoit
038	MOLO MIDDLE	Roderick James	Roderick James
039	MOSS BLUFF ELEMENTARY	Mary Ann James	Mary Ann James
040	MOSS BLUFF MIDDLE	Deborah Montgomery	Debbie Montgomery
042	NELSON ELEMENTARY		
043	OAK PARK ELEMENTARY	Felicious Wilkins	Felecia Wilkins
044	OAK PARK MIDDLE		

~~Cotlec~~ College T.I C & I

C&I Heather Ceasar

Jason Minor

Jeremie Gallion

Jason Minor

Location	School Name	Custodian Name Print	Signature
045	CYPRESS COVE ELEM	Gina Watson	Gina Watson
046	PRIEN LAKE ELEMENTARY		
050	ST. JOHN ELEMENTARY		
051	STARKS HIGH		
052	SULPHUR HIGH		
053	VINCENT SETTLEMENT		
054	R.W. VINCENT ELEMENTARY	Moriah Royer	Moriah Royer
055	VINTON ELEMENTARY	Tammy Dockery	Tammy Dockery
056	VINTON HIGH	Martin Rayne	
057	VINTON MIDDLE	LaTonya Hawkins	LaTonya Hawkins
058	WASHINGTON/MARION HIGH		
059	WATKINS ELEMENTARY	Carol Davis	
060	J.I. WATSON MIDDLE	Tammy Gaspard	Tammy Gaspard
061	PEARL WATSON ELEMENTARY	Yolanda Rivet	Yolanda Rivet
062	S.J. WELSH MIDDLE		
063	WESTERN HEIGHTS ELEMENTARY	Ashly Duraso	Ashly Duraso
064	WESTLAKE HIGH	Lauren Collier	Ribbons Ryan
065	WESTWOOD ELEM	Jacquetta B. Pool	Jacquetta B. Pool
066	FK WHITE MIDDLE	Allison Woodards	Allison Woodards
067	RALPH WILSON ELEM	Shavon Jones	Shavon Jones
068	GILLIS ELEMENTARY		
071	DROST SPECIAL SCHOOL	Herman Hoppe	
073	BRENDA HUNTER HEADSTART CENTER		
081	DEQUINCY ELEMENTARY	Catherine Marcantel	Catherine Marcantel
082	MAPLEWOOD ELEMENTARY		
126	IOWA MIDDLE SCHOOL		
152	SULPHUR HIGH 9TH GRADE CAMPUS		
	LCBA	Steven Clouse	

Section G
Part II

SURVEILLANCE

List each time that a periodic surveillance under ***LAC 33:III.2721.*B** is performed**. (*LAC 33:III.2723.D*)**

Date of Periodic Surveillance	Name (Printed or Typed)	Louisiana Accreditation No.	Expiration Date	Changes in Conditions
See archive data				
12/4/2023	Todd Peterson	MI165930	See AI165930	See report
7/12/2024	Bakari Weiss	FI184724	2/12/2025	See report
2/4/2025	Bakari Weiss	FI184724	2/12/2025	See report

Calcasieu Parish School Board

Periodic Surveillance – January 2025

For

Oak Park Elementary

February 4, 2025

25007

Prepared by:

Savannah Rayburn

Wynn L. White Consulting Engineers, Inc.
P.O. Box 83527
Baton Rouge, LA 70884-3527
(225) 761-9141
(225) 761-4450 Fax

WYNN L. WHITE CONSULTING ENGINEERS, INC.

I. Introduction

A. Summary

The visual periodic surveillance found non-friable materials in the facility. The non-friable ACBM, floor tile/mastic, and transite is in good overall condition and may remain in the facility until its condition deteriorates or is affected by renovation or demolition.

B. Background

The Asbestos Hazard Emergency Response Act (AHERA) became law on October 12, 1986. The law required Environmental Protection Agency (EPA) to develop regulations addressing asbestos in schools. The Louisiana Legislature enacted Title 33, Environmental Quality, Part III Air, Chapter 27 Asbestos-Containing Materials in Schools and Public Buildings Regulations on September 20, 1989. The Louisiana act follows the AHERA regulations and applies to State owned or leased buildings. This periodic surveillance is performed and prepared according to AHERA and Louisiana guidelines.

II. Purpose

The purpose is to locate and assess ACBM. Bakari Weiss (FI184724) performed the periodic surveillance on February 4, 2025.

III. Condition of Material

The non-friable ACBM is in good overall condition.

IV. Conclusion

The visual periodic surveillance found non-friable materials in the facility. The non-friable ACBM, floor tile/mastic, and transite is in good overall condition and may remain in the facility until its condition deteriorates or is affected by renovation or demolition.

Asbestos Periodic Surveillance

WYNN L. WHITE
CONSULTING ENGINEERS, INC.
P.O.B. 83527
Baton Rouge, LA
70884
(225) 761-9141
Form 4.9.63.14

Campus Name: Oak Park Elementary

Campus Number: 114 Project Number: 25007

Inspector Name: Bakari Weiss

Building Number	Comments
2020	Transite Panels in good condition
2021	N/A
2022	N/A
2023	N/A
2024	N/A
2025	N/A
2026	N/A
2027	N/A
2028	N/A

Signature: Bakari Weiss Date: 2-4-25 Sheet 1 of 1

Calcasieu Parish School Board

Periodic Surveillance – July 2024

For

Oak Park Elementary

July 17, 2024

24007

Prepared by:

Savannah Rayburn

Wynn L. White Consulting Engineers, Inc.
P.O. Box 83527
Baton Rouge, LA 70884-3527
(225) 761-9141
(225) 761-4450 Fax

WYNN L. WHITE CONSULTING ENGINEERS, INC.

I. Introduction

A. Summary

The visual periodic surveillance found non-friable materials in the facility. The non-friable ACBM, floor tile/mastic, and transite is in good overall condition and may remain in the facility until its condition deteriorates or is affected by renovation or demolition.

B. Background

The Asbestos Hazard Emergency Response Act (AHERA) became law on October 12, 1986. The law required Environmental Protection Agency (EPA) to develop regulations addressing asbestos in schools. The Louisiana Legislature enacted Title 33, Environmental Quality, Part III Air, Chapter 27 Asbestos-Containing Materials in Schools and Public Buildings Regulations on September 20, 1989. The Louisiana act follows the AHERA regulations and applies to State owned or leased buildings. This periodic surveillance is performed and prepared according to AHERA and Louisiana guidelines.

II. Purpose

The purpose is to locate and assess ACBM. Bakari Weiss performed the periodic surveillance on July 12, 2024.

III. Condition of Material

The non-friable ACBM is in good overall condition.

IV. Conclusion

The visual periodic surveillance found non-friable materials in the facility. The non-friable ACBM, floor tile/mastic, and transite is in good overall condition and may remain in the facility until its condition deteriorates or is affected by renovation or demolition.

Asbestos Periodic Surveillance

WYNN L. WHITE
CONSULTING
ENGINEERS, INC.
P.O.B. 83527
Baton Rouge, LA
70884
(225) 761-9141
Form 4.9.63.14

Campus Name: Oak Park Elementary

Campus Number: 114 Project Number: 24007

Inspector Name: Bakari Weiss

Building Number	Comments
2020	Transite Panels in good condition
2021	N/A
2022	
2023	
2024	
2025	
2026	
2027	
2028	

Signature: Bakari Weiss Date: 7-12-24

Calcasieu Parish School Board

Periodic Surveillance – December 2023

For

Oak Park Elementary

December 12, 2023

21018

Prepared by:

Savannah Rayburn

Wynn L. White Consulting Engineers, Inc.
P.O. Box 83527
Baton Rouge, LA 70884-3527
(225) 761-9141
(225) 761-4450 Fax

WYNN L. WHITE CONSULTING ENGINEERS, INC.

I. Introduction

A. Summary

The visual periodic surveillance found non-friable materials in the facility. The friable ACBM, pipe insulation has been removed, refer to 2023 abatement plans. The non-friable ACBM, floor tile/mastic, and transite is in good overall condition and may remain in the facility until its condition deteriorates or is affected by renovation or demolition.

B. Background

The Asbestos Hazard Emergency Response Act (AHERA) became law on October 12, 1986. The law required Environmental Protection Agency (EPA) to develop regulations addressing asbestos in schools. The Louisiana Legislature enacted Title 33, Environmental Quality, Part III Air, Chapter 27 Asbestos-Containing Materials in Schools and Public Buildings Regulations on September 20, 1989. The Louisiana act follows the AHERA regulations and applies to State owned or leased buildings. This periodic surveillance is performed and prepared according to AHERA and Louisiana guidelines.

II. Purpose

The purpose is to locate and assess ACBM. Todd Peterson performed the periodic surveillance on December 4, 2023.

III. Condition of Material

The non-friable ACBM is in good overall condition.

IV. Conclusion

The visual periodic surveillance found non-friable materials in the facility. The friable ACBM, pipe insulation has been removed, refer to 2023 abatement plans. The non-friable ACBM, floor tile/mastic, and transite is in good overall condition and may remain in the facility until its condition deteriorates or is affected by renovation or demolition.

Section G
Part III

CLEANING

List each time that cleaning under ***LAC 33:III.2719.C*** is performed. **(*LAC 33:III.2725.E*)**

Date of Cleaning	Name (Printed or Type)	Locations Cleaned	Methods used to perform cleaning

Section G
Part IV

O & M ACTIVITIES

List the following information for each Operation and Maintenance activity conducted after December 14, 1987: **(*LAC 33:III.2725.F*)** Attach behind Section G, Part IV.

- Name of Person(s) Performing the Activity
- Start and Completion Dates for each Activity
- Location where Such Activity Occurred
- Description of Activity
- If Asbestos was Removed, the Name and Location of Storage or Disposal Site

MAINTENANCE ACTIVITIES OTHER THAN SMALL SCALE SHORT DURATION (SSSD)

List the following information for each time a major asbestos activity under ***LAC 33:III.2719.E*** is performed: **(*LAC 33:III.2725.G*)** Attach behind Section G, Part IV.

Name of the Person Performing the Activity	Start/Completion Dates	Location	Description of the Activity	If Asbestos was Removed Name and Location of Storage and Disposal Site

FIBER RELEASE EPISODE

For each fiber release episode that has occurred post December 14, 1987, list the following information: **(*LAC 33:III.2725.H*)** Attach behind Section G, Part IV.

- Date and Location of Episode
- Method of Repair
- Preventive Measures or Response
- Name of Person Performing the Work
- If Asbestos was Removed, the Name and Location of Storage and Disposal Site