ISSUE FOR BID

DEMOLITION OF 128 AND 138 NORTH SANDUSKY AVENUE
UPPER SANDUSKY, OHIO

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SPECIFICATIONS

PROPOSED SCHEDULE

Bid Release / Advertisement for Bid:	Wednesday, January 8, 2025	
Pre-Bid Meeting:	Wednesday, January 15, 2025	11:00 AM
Bids Due:	Friday, January 31, 2025	4:00 PM
Bids Opening Date:	Tuesday, February 4, 2025	9:00 AM
Award Date:	Tuesday, February 12, 2025	4:00 PM
Work Completion Date:	Friday, May 30, 2025	

PROJECT CONTACTS

Wyandot County Representative

Treston Hall
County Clerk
109 S Sandusky Avenue
Upper Sandusky, Ohio 43351
Phone: 419-294-3836
Email: wycocom@co.wyandot.oh.us

Wyandot County Buildling Department

Robert Kurtz
Chief Building Official
109 S Sandusky Avenue
Upper Sandusky, Ohio 43351
Phone: 419-294-3837
Email: rkurtz@safebuilt.com

Upper Sandusky Fire Chief

Chief Maginn
Fire Department
120 N. 7th Street
Upper Sandusky, Ohio 43351
Office: 419-294-3322

Water

Eric Honaker
Upper Sandusky Water Works
119 N. 7th Street
Upper Sandusky, Ohio 43351
Phone: 419-835-2882

Sewer Utilities

Dave Schneider
Upper Sandusky Sanitary District
155 Indian Mill Drive
Upper Sandusky, Ohio 43351
Phone: 419-731-3181

Electric Utility

Aaron Rieman
American Electric Power – Customer Account Manager
2622 S State Route 100, 01
Tiffin, Ohio 44883
Phone: 419-443-7549

Gas Utility

Columbia Gas of Ohio
290 W Nationwide Boulevard
Columbus, Ohio 43215
Phone: 800-344-4077

END OF SECTION 0011

ISSUE FOR BID

DEMOLITION OF 128 AND 138 NORTH SANDUSKY AVENUE
UPPER SANDUSKY, OHIO

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DRAWINGS

Drawing Number	Drawing Title
001	Cover Sheet, Site Location and Sheet Index
002	General Plan Notes
003	Aerial Site Location
004	Site Demolition Plan and Limits of Construction Site and Existing Conditions
005	Existing Water and Sewer Routing Diagram (for reference)
S1 – S2	Revival Design Collective Structural Drawings S1.00 Through S2.03

PART 1 - GENERAL

1.01 SELECTIVE DEMOLITION AND SITE PRESERVATION

A. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with Wyandot County, Ohio on the forms included in the Contract Documents to perform and furnish all work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

B. Whereas the stated work in this project manual shall include general and selective demolition of the buildings located at 128 and 130 North Sandusky avenue, portions of the facade shall be maintained after demolition. Sections of this project manual (specifications and drawings) that pertain to the structural design requirements for maintenance of the facade were prepared by Revival Design Collective of Coldwater, Ohio. TRC assumes no liability regarding the work specified by Revival Collective Design, their design, means, methods and the preservation of the facade.

C. Bidder accepts all of the terms and conditions of the Invitation to Bid and Instructions to Bidders. This Bid will remain subject to acceptance for ninety (90) days after the day of Bid opening. Bidder will sign and submit the Agreement with the Bonds and other Documents required by the Bidding Requirements within ten (10) days after the date of WYANDOT COUNTY Notice of Award.

D. In submitting this bid, Bidder represents, as more fully set forth in the Agreement, that: a) Bidder has examined copies of all the Bidding Documents and of the following addenda (receipt of all which is hereby acknowledged):

1. Bidder has familiarized himself/herself with the nature and extent of the Contract Documents, work, site, locality and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the work.

2. Bidder has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests and studies which pertain to the subsurface of physical conditions at the site or otherwise may affect the cost, progress, performance or furnishing of work as Bidder considers necessary for the performance or finishing of the work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, and no additional examinations, investigations, explorations, tests, reports, or similar information or data are or will be required by Bidder for such purposes.

3. Bidder has reviewed and checked all information and data shown or indicted on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumed responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports or similar information or data in respect of said Underground Facilities are or will be required by the Bidder in order to perform and furnish the work at the Contract Price, within the Contract Time and in Accordance with the other terms and conditions of the Contract Documents.

4. Bidder has correlated the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents.

5. Bidder has given the appropriate local authority or designated representative written notice of all conflicts, errors or discrepancies that it has discovered in the Contract Documents and the written resolution thereof by the appropriate local authority or designated representative is acceptable by Bidder.

6. The Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over WYANDOT COUNTY.

E. Bidder will complete work for the following prices:

F. Bidder agrees that the work will be substantially complete and ready for final payment in accordance with the General Conditions within the Calendar days indicated in the Agreement.

G. Communication concerning this Bid shall be addressed to WYANDOT COUNTY, or designated representative.

H. The terms used in this Bid which are defined in the General Conditions of the Construction Contract included as part of the Contract Documents have the meanings assigned to them in the General Conditions.

I. The bidder has salvage rights for this work.

1.02 TIME OF COMPLETION

A. The undersigned Bidder agrees to commence work within ten (10) calendar days after written notice as specified in a written "Notice to Proceed" to be issued by WYANDOT COUNTY and to complete construction of the improvements, as required by the Project Manual, Drawings and Addenda for the Work, within the mutually agreed Contract Time.

B. The Bidder further agrees that should the Bidder fail to complete the work by the completion dates indicated in the Bid or as subsequently adjusted, WYANDOT COUNTY may elect to pursue action allowed by law.

C. The undersigned acknowledges receipt of the following addenda:

1. Addendum No. 1 _____ Received _____
2. Addendum No. 2 _____ Received _____
3. Addendum No. 3 _____ Received _____

Secretary, *if bidder is a Corporation

_____
Bidder

(Seal)

_____
Authorized Signature

Copy of Corporate Resolution and minutes with certificate of officer of bidder as to authority of signatory to bind bidder is to be signed and dated no earlier than one week in advance before Bid opening date, and attached to this document.

_____
Print Name

_____
Title

_____
Date

_____
Telephone Number

_____
FAX Number

_____
E-Mail Address

1.03 REFERANCE RECORD

A. The Contractor shall list references in the spaces provided below for similar projects of equal or greater dollar amount that have been completed within the past five (5) years (list a minimum of three). Separate sheets may be attached.

No.	Location	Description (Size, Type, Length)	Contact Person (Phone Number & E-Mail Address)	Date of Completion
1.				
2.				
3.				
4.				
5.				

1.04 STATEMENT OF BIDDER'S QUALIFICATIONS

A. All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires.

Name of Bidder: _____ Date Organized: _____

Address: _____ Date Incorporated: _____

Federal ID Number: _____

Number of years in contracting business under present name: _____

List Names of Bidder's owners, partners, or shareholders: _____

B. Type of work performed by your company: _____

C. Have you ever failed to complete any work awarded to you? _____

_____

D. Have you ever defaulted on a contract? _____

_____

E. List the projects recently completed by your firm that is representative of this contract:

1.	
2.	
3.	
4.	
5.	
6.	

F. Credit Available: _____

G. Bank Reference and Bank Officer: _____

H. Provide estimated quantities and unit costs where applicable for items 1-6 below and provide total project lump sum base bid cost:

Item Number	Unit	Item Description	Amount ($)
1	Lump Sum	Obtaining and maintaining **CONTRACT PERFORMANCE BOND** for duration of the project	
2.	Lump Sum	For providing contractor **MOBILIZATION** and **DEMOBILIZATION** including all materials, equipment, tools, permits and personnel, complete in place, for sum of	
3.	Lump Sum	Conduct all **UTILITY DISCONNECTS** in accordance with local regulations including electrical, sewer, water, gas and information systems	
4.	Lump Sum	Installation and maintenance of all required **SEDIMENT CONTROLS** including all permits and fees for the duration of the project	
5.	Lump Sum	For providing contractor **SELECTIVE DEMOLITION AND PRESERVATION OF THE BUILDING FACADE** including construction and installation of structural components and all materials, equipment, tools, permits and personnel, complete in place, for sum of	
6.	Lump Sum	For providing contractor **DEMOLITION OF ALL SPECIFIED BUILDINGS AND STRUCTURES** including all materials, equipment, tools, permits and personnel, complete in place, for sum of	

Item Number	Unit	Item Description	Amount ($)
7.	Lump Sum	For providing contractor **ABATEMENT OF ALL ASBESTOS CONTAINING MATERIALS IDENTIFIED IN THE SPECIFICATION, TO INCLUDE MOBILIZATION & DEMOBILIZATION** including all materials, equipment, tools, permits and personnel, complete in place, for sum of	
8.	Lump Sum	For providing contractor **ABATEMENT OF ALL REGULATED MATERIALS, PCBS, AND ALL OTHER WASTE ITEMS IDENTIFIED IN THE SPECIFICATION, TO INCLUDE MOBILIZATION & DEMOBILIZATION** including all materials, equipment, tools, permits and personnel, complete in place, for sum of	
9.	Lump Sum	For providing contractor to **CONDUCT EARTHWORK AND SITE RESORATION** including installation of suitable backfill material, Compact, Grade, Purchase and Apply Topsoil, Seed and Install All Specified Drainage Appurtenances including all materials, equipment, tools, permits and personnel, complete in place, for sum of	
TOTAL LUMP SUM BASE BID (Summation of Bid Items 1 through 9.			

I. Calendar Days for JOB COMPLETION after NOTICE TO PROCEED (estimated by contractor): _____

The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by WYANDOT COUNTY or its designated representative in verification of the recitals comprising this Statement of Bidder's Qualifications.

Executed this _____ day of _____

Firm: _____

By: _____

Print: _____

Title: _____

1. All amounts due (which shall include the appropriate profit) and not previously paid to Contractor for the work completed on the terminated portion in accordance with the Contract prior to such notice, and for the work thereafter completed as specified in such notice. All amounts due shall be determined in accordance with Contractor's original costing basis and shall represent the actual work completed on a percentage basis;

2. The reasonable costs of settling and paying claims arising out of the termination;

3. The reasonable costs incurred pursuant to article 6 above;

4. Any other reasonable costs incidental to such termination of the work.

5. Contractor shall submit to Wyandot County its statement for the aforesaid amount in such reasonable detail as Wyandot County shall request, within thirty (30) days after such date of termination, and Wyandot County, subject to verification thereof, shall remit such amount within thirty (30) days after receipt of such statement by Wyandot County. Neither Wyandot County or its designated representative shall be liable to Contractor for any other damages or anticipated profits with respect to the remainder of the work on account of such termination. Wyandot County may, at its election, invoke a partial termination of the work as a decrease in the scope of the work in accordance with article 6.

6. The Bidder, in compliance with Wyandot County's invitation for bids for the project **"Demolition Of 128 And 138 North Sandusky Avenue, Upper Sandusky, Ohio 43351"**, and having examined the Ohio Department of Development Grant Agreement #ODSA-2022-192116 along with the other related documents provided in this bid, and having examined the site of the proposed work, and with all conditions surrounding environmental abatement and disposal of asbestos and hazardous materials, structure deconstruction and demolition, site feature demolition, and site restoration, hereby propose to furnish all labor, materials, tools, equipment, machinery, equipment rental, transportation, superintendence, perform all work, provide all services, and to perform all work in accordance with Contract Documents, to be provided by WYANDOT COUNTY, at the price stated below. Prices are to cover all expenses incurred in performing work required under Contract Documents, of which this Bid/Tender is a part.

END OF SECTION

DIVISION 1 - GENERAL REQUIREMENTS

PART 1 - GENERAL

1.01 SITE BACKGROUND

A. The subject property consists of one 3,325-square foot and one 3,600-square foot, two-story commercial buildings, constructed prior to 1884 with additions between 1902 and 1911.

B. The approximately 0.142-acre subject property is comprised of two adjoining parcels, 128 and 139 North Sandusky Avenue (parcel numbers 067040900000 and 067040850000) and consists of two abandon, previous commercial buildings that were damaged in a fire on June 30, 2022. The subject property is currently owned by Knotheadz LTD and has been vacant since 2022.

C. The subject property was historically operated as saloons and various commercial uses including a bicycle shop, a plumbing business, and a restaurant/bar. Residential use of the second stories of the buildings occurred from the 1990s through 2022

D. A fire damaged the second stories of the subject property buildings on June 30, 2022. Debris from the fire and most of the drywall of the second stories and some of the first stories has been removed. Portions of the roof have been removed along with the second story windows. Storm water has entered the building and water damage of the flooring of the first floor is evident.

E. The Property receives its water supply from Upper Sandusky Water Works, sanitary sewer is serviced by Upper Sandusky Sanitary District and Electricity is provided to the Property by American Electric Power and natural gas is provided to the Property by Columbia Gas of Ohio, Contractor must verify.

F. The demolition work to be completed also includes the abatement and removal, disposal and/or salvage of equipment within the building(s), including but not limited to, boilers, chillers, cooling towers, pumps, tanks, conveyors and electrical equipment in addition to the removal of a walk-in cooler in the back area. Underground utilities shall be cut at grade and capped. Below grade pits shall be filled to match existing adjacent grade and the below grade basement floors shall be core drilled at specified locations. Fill material will consist of both compacted environmentally clean backfill and clean/reusable concrete/masonry. **Specific work items are detailed in other sections of the Specification and in section 1.04 below**.

1.02 SALVAGE RIGHTS

A. Bidder can retain all salvaged items and has salvage rights for this work.

1.03 GENERAL

A. The Contractor shall be solely and entirely responsible to ensure the health and safety of all individuals which could be impacted by the work. The appropriate local authority and/or the appropriate local authority's designated representative shall have the authority to stop work at the Contractor's expense at any time the Contractor is not operating in accordance

with applicable safety regulations or where any unsafe working conditions or site hazards exist, or practices are employed.

B. Whereas the stated work in this project manual shall include general and selective demolition of the buildings located at 128 and 130 North Sandusky Avenue, portions of the facade shall be maintained after demolition. Sections of this project **manual (drawings S1.00-S1.04 and S2.01-S2.03)** that pertain to the structural design requirements for construction and maintenance of the facade were prepared by Revival Design Collective of Coldwater, Ohio. TRC assumes no liability regarding the work specified by Revival Collective Design, their design, means, methods and the preservation of the facade.

C. The Contractor shall be required to apply for and retain all required permits, and to supply or fabricate and pay for all temporary connections (power, water, etc.) and usage to the City of Upper Sandusky's (City) existing utilities as required for the duration of the site work to be performed.

D. Cranes and/or other large, heavy equipment shall be required to remove elevated equipment and demolish structures. Prior to mobilizing this equipment to the site, the Contractor shall submit and receive approval for a designated access route for equipment. All underground utilities, tunnels and void areas shall be identified and marked. The Contractor shall submit an engineered general lift plan that covers all lifts.

E. The Contractor should exercise caution when operating heavy machinery on site access roads. Any cracking or spalling on site access roads shall be reported to the appropriate local authority and the designated representative(s)immediately. Lift Plans shall include a means for properly bracing crane supports and mitigating the equipment loads on designated access routes.

F. The appropriate local authority shall not retain any salvage proceeds for this work. Unless otherwise specified, the contractor shall proceed with management of all materials, including, but not limited to; wastes, debris and salvageable items generated as part of this work.

G. All permit applications and filings shall be identified and prepared and submitted by the Contractor.

H. Security for the Property during demolition, shall be provided by the Contractor. The contractor shall furnish the appropriate local authority, if requested, with names of personnel that will check into the site. Contractor to provide temporary fencing at jobsite work area.

I. Contractor to grade area uniformly to prevent ponding of storm water and hydro-seed to achieve positive drainage to surrounding topography in accordance with generally accepted practices and associated Drawings.

J. All work required to restore the jobsite will be performed to the satisfaction of the appropriate local authority and the designated representative(s).

K. Contractor to submit final project completion documentation as specified.

L. The foregoing is a general description only and is not intended to provide a complete description of the work.
M. All regulated material sample collection shall be performed in accordance with Ohio Environmental Protection Agency (OEPA), United States Environmental Protection Agency (USEPA) and Ohio Department of Health (ODH) approved methods. All laboratory analyses shall be performed by a National Environmental Laboratory Accreditation Program (NELAP) certified laboratory or laboratory approved by the County and Engineer.

N. Contractor shall be responsible for the following, including, but not limited to:

1. Connecting to temporary utilities to perform the work. In each case, Contractor shall receive permission from the City and the utility owner before undertaking connections. Contractor shall protect facilities against deleterious substance and damage and pay for all usage.
2. Disassembling, packaging, transporting, uncrating, storing, securing, and protecting materials and equipment at the jobsite. Items damaged as a result of the Contractor's operations, including, but not limited to; pavement, adjacent building components and fences, sewers and utilities that will remain in use shall be repaired or replaced in kind by the Contractor at no expense to the appropriate local authority.
3. Securing the jobsite, including installing temporary fencing, and site lighting, if necessary.
4. Keeping Record Drawings, Photographic Documentation, Plans, and Permits available at the jobsite at all times. Record Drawings shall be clearly marked as such and shall be used only for recording changes pertinent to the demolition operation and façade maintenance for use in preparing As-Built/Record Drawings and documents. All changes shall be clearly marked in red pencil. The Record Drawings shall always be readily available for inspection by the appropriate local authority and designated representative(s) at all times.
5. All material testing required for the project.

1.04 GENERAL SCOPE OF WORK

A. The scope of work below is described in the following order:

1. Establish Property boundary, erect security fencing (lighting, if needed) and Site security.
2. Negotiate with adjacent property owners use of space.
3 Conduct Asbestos Abatement and Regulated Materials Removal.
4. Construct and install all requirements for maintaining facade as per pertinent sections of **drawings S1.00-S1.04 and S2.01-S2.03**.
5. Terminate all utilities servicing the site.
6. Demolish buildings 128 and 130 and perform perforations in remaining floor slabs as per **drawings S1.00-S1.04 and S2.01-S2.03**.
7. Tuckpoint, clean and repair as needed remaining exposed walls facing demolished structure.
8. Provide backfill and compaction as required as per 1.03 I.

1.07 SUBMITTALS

A. Certain Submittals shall be provided by the Contractor and approved by the appropriate local authority and/or designated representative(s) prior to mobilization:

1. Contractor Qualifications and Experience.
2. Subcontractor List, Qualifications, and Experience.
3. Insurance Certificates.
4. Copies of all Contractor obtained permits and/or licensing.
5. List of Key Personnel, Resumes, Bios, and Qualifications and their specific project responsibilities.
6. Training and/or medical records of all employees on-site prior to their arrival on-site to confirm they are properly trained, licensed, certified and medically monitored as appropriate for the task(s) they will be executing.
7. For all employees on-site, the Contractor shall verify the workers' eligibility to work in the United States (I-9 or some other form of verification).
8. Pre-Demolition Photographs and video tape of site and adjacent buildings and parking lots and driveways (including via drone)
9. Provide acknowledgement of the City approved Maintenance of Traffic plan (MOT).
10. A comprehensive Health and Safety Plan (HASP), including, but not limited to, Fire Protection Plan and an Emergency Response Plan.
11. Asbestos Abatement Work Plan in accordance with Section 02081 (Asbestos Abatement).
12. Regulated Materials Management and Removal Work Plan in accordance with Section 02095 (Regulated Material Removal).
13. Erosion Control Plan and any modifications/amendments
14. Project schedule and schedule of values.

B. The Contractor shall not mobilize or perform any physical site work prior to receipt and approval of the required submittals by the appropriate local authority. No claims of delay will be permitted due to the Contractor's failure to obtain approval from the appropriate local authority or the authorities having jurisdiction of the preceding submittals.

1.08 CONTRACTOR'S USE OF JOBSITE

A. The Contractor shall confine use and operations within the limits indicated on the drawings, and shall use due care in placing tools, equipment, excavated materials, etc. so as to prevent damage to the Property, adjacent properties, and interference with pedestrian and vehicular traffic and existing utilities.

B. Contractor is to negotiate with adjacent property owners for usage of their space for parking, materials storage, and equipment laydown.

C. The Contractor shall limit the use of the Property to demolition related activities in the areas directed by the appropriate local authority or the authorities having jurisdiction and shall limit use of the Property, when not engaged in the actual performance of the work, to storage activities related to the execution of the work.

1.09 QUALIFICATIONS

A. Contractor selected to perform the work must be approved by the appropriate local authority. The Contractor must have an acceptable Safety Performance record.

B. The Contractor shall submit evidence of successful completion of a demolition project similar in size and scope for which the Contractor had primary responsibility and control. The Contractor shall submit evidence of a minimum of ten (10) years of demolition experience. Verification shall include letters of recommendation, references, contact information for owners/clients for whom the work was performed, dates, duration of the projects, project costs, and roles and experience of Contractor employees proposed to be assigned to the work, and licenses and certifications for employees and Contractor.

C. Any subcontractor that is proposed to perform any aspect of the work shall meet the requirements of this Section. The identity of all subcontractors(s) shall be submitted for approval by the appropriate local authority prior to the subcontractor performing any work.

D. The Contractor shall submit evidence of each subcontractor's successful completion of projects similar in scope and execution, and a minimum of three (3) consecutive years of experience of the same (which shall be the most recent past three years). Evidence shall include letters of recommendation, references, contact information for owners/clients for whom the work was performed, start and end-dates, duration of the projects, project costs, roles and experience of employees proposed to be assigned to the work, and licenses and certifications for employees and subcontractor.

1.10 COOPERATION

A. The Contractor shall cooperate with the appropriate local authority and designated representative(s) at all times so that the interest of all parties concerned regarding the performance of the work at the jobsite will be advanced.

B. The Contractor shall control the means and methods employed in the performance of the work. However, both the Contractor's means and methods will be subject to the appropriate local authority and designated representative(s) approval. The Contractor shall coordinate all work with the appropriate local authority and/or designated representative ’s site personnel, other contractors and subcontractors to accomplish the work. The appropriate local authority reserves the right to order an increase or decrease in manpower and equipment in order to meet the Schedule and maintain continuity.

C. The appropriate local authority and designated representative(s) shall cooperate with the Contractor to facilitate the continuity and progress of the work. The Contractor shall cooperate with the appropriate local authority by minimizing the disturbance of the appropriate local authority’s activities.

D. With direction from the designated representative(s), the Contractor shall coordinate all work activities with the appropriate local authority as required. The Contractor shall avoid causing disruptions to the daily activities of all other personnel and their equipment at the jobsite. When work must be coordinated with other personnel, the Contractor may be required to stop or rearrange the Schedule.

E. With direction from the designated representative(s), the Contractor shall coordinate all work activities with other contractors or subcontractors, if any, performing work at the

facility. The Contractor shall avoid interference and ensure the continued progression of work.

F. All operations of the Contractor shall be confined to the areas authorized for use and approved by the appropriate local authority. No unauthorized and unwarranted entry or passage, storage or disposal of materials shall be made on other property.

G. The Contractor shall maintain access to existing roads to and from the jobsite at all times. When work will interfere with access to the Property, the Contractor shall advise the appropriate local authority of the proposed work schedule at least three (3) business days in advance. In cases where the interferences might reasonably interfere with firefighting operations, additional and earlier notifications and coordination may be required.

H. The Contractor shall be responsible for the conduct of all employees in relation with one another, all appropriate local authority employees, and other contractors or subcontractors working at the Property. Any misconduct shall be dealt with in a responsible and timely manner by the Contractor.

I. Contractor acknowledges that Sections of this project manual (notes and drawings on **drawings S1.00-S1.04 and S2.01-S2.03**) that pertain to the structural design requirements for maintenance of the facade were prepared by Revival Design Collective of Coldwater, Ohio. TRC assumes no liability regarding the work specified by Revival Collective Design, their design, means, methods and the preservation of the facade.

1.11 ENGINEER ACCESS

A. The Contractor shall provide the Engineer or designee access to the Property and work areas therein at all times as requested by the designated representative(s) and shall provide the designated representative(s) with every reasonable facility for the purpose of the designated representative(s) inspection. During the entire course of work, the Contractor shall permit the designated representative(s) ample time to inspect the work.

1.12 PERMITS

A. Unless the specifications specifically provide to the contrary, the Contractor shall obtain and pay for all required permits, including but not limited to; building permits, demolition permits, road opening and/or closing permits, dewatering permits, environmental permits, rights-of-way and easements from town, county, state, federal and other authorities. The Contractor shall abide by any and all conditions and requirements that may be imposed by such permits. "Permits" as used herein includes licenses, registrations, approvals, and all other authorizations required by government agencies, authorities and utilities.

B. The Contractor shall obtain and pay for permits for use of public highways, or other public places by the Contractor's vehicles or equipment, if approved by the appropriate local authority.

C. The Contractor shall use extreme care to avoid encroachment on private property and shall not operate its equipment on private property without the prior written consent and approval of the property owner.

D. Through the duration of the work, Contractor shall arrange and coordinate all required agency inspections unless specifically informed otherwise. No additional compensation will be paid for repairs, patching and replacement of work required to be removed, opened, or otherwise disturbed to facilitate such inspections.

E. Any notice(s) of violation of permits shall be immediately reported to the appropriate local authority and designated representative(s).

1.13 DRAWINGS-MATERIAL QUANTITIES

A. The drawings forming a part of the specifications (the "Drawings") show dimensions, sections, reinforcing details, etc., and are intended to represent the existing conditions and/or finished work. The quantities, where shown, on the drawings are only approximate. The Contractor shall verify final necessary quantities and assume full responsibility for those quantities required to actually complete the work. In performance of the work, the Contractor shall supply every necessary detail to accomplish the work in a professional manner even though such details may not be specifically described in the specifications or shown on the drawings.

B. The Contractor is responsible for taking measurements of existing conditions and elevations. These shall take precedence over dimensions provided in the specifications and on the drawings. If a discrepancy should exist, deviations from the specifications or drawings shall be made only after an agreement in writing is obtained from the appropriate local authority.

C. The Contractor is responsible for all quantity deductions or take-offs to determine the Contractor's bid.

1.14 DRAWINGS DETAILS

A. The Contractor shall not scale the drawings for demolition purposes. The lists of equipment, tabulations of data, and schedules appearing in the specifications and on the drawings are included only for the assistance and guidance of the Contractor in arriving at a more complete understanding of the intended scope of work. They are not intended, or to be construed, as relieving the responsibility of the Contractor for conducting their own takeoffs. The Contractor shall be responsible for material quantities and take-offs. If the Contract Documents are in error or appear to be in error, lack detail, or require further explanations, the Contractor shall request the designated representative(s) to clarify, explain or provide additional drawings as may be necessary. The Contractor shall conform to the new corrected or clarified drawings and/or specifications. In the event of any doubt or question arising with respect to true meaning of the drawings or specifications, the designated representative(s)' decisions shall be final and binding. The Contractor shall be required to prepare shop drawings including all details required for the fabrication of miscellaneous steel work, reinforcing steel details, piping systems, electrical panels, etc. to be furnished by the Contractor in accordance with the design provided by Revival Design collective.

1.15 PROHIBITED MEANS AND METHODS

A. The Contractor is prohibited from employing the following demolition means and methods:

1. Employing explosives unless approved.
2. Employing wrecking ball unless approved.
3. Employing helicopters unless approved.
4. Weakening and pulling over structures in an uncontrolled manner without an appropriate local authority having jurisdiction-approved work plan. The work plan shall address safety issues, structure protection and operability of equipment.
5. Demolishing structures without removal of major equipment (e.g., steam drums, boilers and headers and other equipment).
6. Any activity that will cause vibrations above the limits stated in the Contract documents or otherwise cause unacceptable vibration impacts. Strain gauges will be utilized and checked on a daily basis.
7. Employing mechanical methods adjacent to any structure to remain.
8. Allowing structural members and large equipment to fall to grade.
9. Generating uncontrolled dust and debris adjacent to water bodies, site boundaries, and any structure to remain.

1.16 OBSTACLES AND MINOR ADJUSTMENTS

A. The drawings are not intended to show all details and requirements relating to the scope of work. The Contractor shall advise the designated representative(s) immediately, in writing, when the Contractor encounters obstacles or discrepancies, which require changes or adjustments to the approved design and work procedures.

1.17 ABBREVIATIONS AND SYMBOLS

A. The Contractor is expected to be familiar with the standard abbreviation symbols used in the Contract Documents. The Contractor shall inform the appropriate local authority, in writing, of any unclear or unknown abbreviation or symbol. Unless notified, the County will assume that the Contractor is fully familiar with all such items and can execute the work accordingly.

1.18 LANGUAGE AND SYSTEM OF UNITS

A. All dimensions, descriptions, calculations, drawings, test reports, progress estimates, packing lists, and correspondences submitted to the appropriate local authority shall be in English and shall have English system of units throughout, in addition to any other language and any other system of units. Where the English language or system of units is in conflict with the language or system of units used by the Contractor, the English language and system of units shall be binding.

B. The Contractor shall ensure all employees on-site are versed in English or have sufficient translators on-site to ensure all workers have sufficient knowledge to safely execute their assigned tasks.

1.19 PROTECTION OF OWNER PROPERTY AND PERSONNEL

A. The Contractor shall provide protection to prevent damage to the Property, including all facilities, interior and exterior, during demolition operations, excluding owner Property specified to be demolished and decommissioned.

B. The Contractor shall protect the occupants and surrounding areas against hazards during demolition operations and shall provide safe access to occupied areas. If elimination of access to any area becomes necessary, it shall occur only after advance notice and written approval by the appropriate local authority.

C. The Contractor shall provide barricades, temporary partitions, other separations including those for dust control, and enclosures to protect personnel, equipment, facilities, and the public from harm or injury due to the demolition operations.

D. The Contractor shall protect the high voltage lines and critical energy infrastructure to remain throughout the jobsite.

E. The Contractor shall repair any damage to the adjacent appropriate local authority's and private owner(s)' property to the satisfaction of and at no cost to the appropriate local authority's and private property owner(s).

F. The Contractor shall protect operating personnel during the work. Shielding, scaffolding, and protective means and methods shall be implemented to prevent falling objects, unintended collapse, dust, limitations of the air flow to the air intake structures, and excessive dust and vibration impacts.

1.20 PROTECTION OF EQUIPMENT AND MATERIALS

A. The Contractor shall assume full and complete responsibility for protection and security of their materials and equipment stored at the jobsite.

B. The Contractor shall provide for a security presence, as necessary, to protect the Contractor's materials, equipment, etc. on the jobsite and to prevent access to the Contractor's work areas. The appropriate local authority is not responsible for theft, loss, damage, etc., of or to the Contractor's materials, equipment, etc. on the jobsite.

1.21 JOBSITE COOPERATION

A. The appropriate local authority reserves the right to perform work with its own personnel and to let other contractors in connection with work on the jobsite. The Contractor shall afford other contractors and appropriate local authority representatives' reasonable opportunity for transportation and storage of their materials and the execution of their work.

B. The Contractor shall coordinate its work with that of other contractors and appropriate local authority's employees and shall at no time interfere with operations of other contractors on the property.

1.22 HOURS OF WORK AND RESTRICTIONS

A. Unless specified elsewhere the Contractor shall adhere to the Normal Work Hours of 7:00 am to 5:00 pm, Monday through Friday, with the exception of holidays observed by the County. Upon written request and approval, the appropriate local authority may grant the Contractor extended hours at no additional cost to the appropriate local authority.

B. The Contractor shall adhere to the following prohibited work periods:

1. No work shall be performed within 20 feet of energized electric lines.

1.23 UNSCHEDULED WORK

A. Unless scheduled or agreed upon prior to the award of the Contract, the work shall not be scheduled for Sundays, and holidays observed by the appropriate local authority without at least three (3) working day' notice to the designated representative(s). Where the work has been delayed by causes within the control of the Contractor, the Contractor may be required to work on premium time to meet contractual completion dates at no additional cost to the appropriate local authority. Regardless, work shall not be performed during other than Normal Work Hours without prior approval of the appropriate local authority.

1.24 INSURANCE

A. The Contractor shall not mobilize or perform any physical site work prior to receipt and approval of required Contractor insurance certificates by the appropriate local authority.

1.25 SURVEY CONTROL

A. Establishment and maintenance of site horizontal and vertical control is not required.

1.26 LABOR REQUIREMENTS

A. Legal Requirements

1. At its own expense the Contractor shall comply with all federal, state and local laws and regulations relating to safety, health, and discrimination against employees or applicants for employment, including but not limited to:
   a. 29 USC 651 et seq., Occupational Safety and Health Act of 1970, as amended.

B. Safety

1. The Contractor shall plan for the time necessary to develop the final site-specific HASP and task-specific Job Hazard Analyses (JHAs) for the work to be performed in compliance with OSHA Publication No. 3071. The Contractor shall submit and obtain the appropriate local authority’s approval of work plans related to the work. Contractor at its sole discretion shall determine if an activity requires a task specific JHA.

C. Required Staffing

1. The Contractor shall furnish sufficient competent workmen to perform the work promptly, efficiently and to the satisfaction of the Engineer. At all times, the Contractor shall staff the jobsite with proper supervision. At a minimum, the Contractor shall have on-site full-time the following: project manager, environmental coordinator, health and safety officer and superintendent(s) for each of the active trade(s). This supervision shall include a representative of the Contractor with authority to act on behalf of the Contractor.

2. Criminal background checks shall be performed on all employees of the Contractor and its subcontractors prior to performing work at the jobsite.

D. Drugs/Alcohol

1. The appropriate local authority's policy is to promote and maintain a work environment that is totally free from the effects of alcohol and drug use or abuse. Contractor employees shall report to work in a condition to perform their functions safely and efficiently. They shall not be in possession of, or under the influence of, drugs or alcohol. Contractors shall immediately remove any employees from the jobsite who are not fit to perform as required. The appropriate local authority reserves the right in its sole discretion to request the removal of any Contractor employee who is believed to be under the influence of drugs and/or alcohol from the appropriate local authority project, the Property, or job site.

E. Parking

1. The Contractor's cars and trucks and its employees' cars shall be parked in areas expressly set aside and designated by the appropriate local authority as parking areas. The appropriate local authority assumes no responsibility for loss or damage to such vehicles.
2. Off-site parking shall not be required for this project.

F. Personnel Accidents

1. The designated representative(s) shall be notified as soon as is practical of any accident so as to be able to provide support and/or direction to emergency equipment summoned to the Project property.
2. The Contractor shall submit accident reports and investigations to the Engineer within 24 hours after any accident.
3. The Contractor shall notify the designated representative(s) immediately of the presence of any OEPA, USEA, United States Occupational Safety and Health Administration (OSHA) and/or Ohio Workman's compensation representative who arrives on site for an inspection and/or investigation. The designated representative(s) shall immediately notify the appropriate local authority of the impending inspection and/or investigation.

G. Right of Removal

1. The appropriate local authority reserves the right to demand removal from the jobsite any personnel under the employ of the Contractor whose presence is deemed undesirable, for any reason whatsoever so long as it is not contrary to federal, state or local law. The appropriate local authority is not obligated to provide any reasons for such demands, nor to pay any expenses incurred by the Contractor as a result of a demand.

H. Vehicle Identification

1. None required.

1.27 JOB SITE REGULATIONS

A. The appropriate local authority will provide to the Contractor a set of jobsite regulations which will cover items such as access, security, vehicle parking, general working rules, etc. The Contractor will be held responsible for ensuring that all its employees comply with these regulations. The appropriate local authority reserves the right to add to, delete from, alter or modify the jobsite regulations at any time. This specification will serve as the set of job site regulations.

1.28 DOCUMENT REVIEW

A. The appropriate local authority's review of Contractor documents is for the sole purpose of confirming consistency with the Contract Documents. Details for the proposed work shall remain the responsibility of the Contractor. Review of Contractor design drawings, shop drawings, specifications, procedures, product documentation, etc. by the appropriate local authority does not mitigate the Contractor's obligations under the Contract Documents. The Contractor is responsible for the performance of all work in full accordance with the Contract Documents.

1.29 ENGINEERING SERVICES

A. Any professional engineering and land surveying services performed by the Contractor, or its subcontractors shall comply with the Ohio Board of Professional Engineers Law and Rules.

1.30 REFERENCE SPECIFICATIONS AND STANDARDS

A. Comply with the requirements of the various specifications and standards referred to in these specifications. Such reference specifications and standards shall be the date of latest revision in effect at the time of contract award, unless the date is given. Where conflict arises, the most stringent requirements, as determined by the appropriate local authority, shall apply.

1.31 DEFINITIONS

A. Agreement: Any appropriate local authority issued Purchase Order and/or countersigned contract.
B. Appropriate local authority: County, City official representatives including Contract Administrator or designated representative(s).

B. Bid Documents: The Notice of Solicitation, proposal form, specifications, drawings, sketches and other documents included in the Notice of Solicitation.

C. Construction Schedule or the Schedule: A schedule submitted by the Contractor to and approved by the appropriate local authority for completion of the work within the time limits required by the Contract. The Schedule shall include a breakdown of the project tasks with required manpower requirements.

D. Contract Administrator: The appropriate local authority's designated representative(s) responsible for interpreting and enforcing Contractor compliance with technical,

commercial and legal terms of the Contract Documents; distributing engineering documents; evaluating Contractor claims; and validating Contractor invoices.

E. Contract Documents: The Agreement between the appropriate local authority and the Contractor including general, supplementary, and other conditions; Drawings; Specifications; Bid Documents; other documents listed in the Agreement; project change directives to the Agreement (Work Directives and/or Purchase Order Releases).

F. Contractor: The individual or entity with whom the appropriate local authority has executed the Agreement to provide the work specified in this manual and any additional contracting document with the appropriate local authority.

G. Revival Design Collective is the architectural firm, who is retained by the property owner to provide certain design portions of the is project (façade maintenance and other portions of the work).

H. Engineer: The person designated by the appropriate local authority who is responsible for inspection and coordination of the field effort to assure Contractor compliance with schedule, technical, and quality requirements.

I. Final Payment: Payment to the Contractor of the remaining balance due of the Contract Price, including any and all remaining retainage, after receipt by the appropriate local authority designated representative(s) written notice that the work is acceptable, and written recommendations that the appropriate local authority make final payment of the accepted application.

J. Hot Work: Work such as welding, cutting and other processes that typically produce heat, sparks and temperatures above 230° F.

K. Jobsite: The location where the work will be performed as defined by the Contract.

L. Project Specifications: Those parts of the Contract Documents consisting of written descriptions of technical requirements, performance of the work, standards, workmanship, quality requirements, materials, equipment, and construction or demolition systems.

M. Schedule of Values: An itemized list prepared by the Contractor that establishes the dollar value for each major component of the work. The Contractor's Schedule of Values shall be submitted and approved by the designated representative(s) and shall be included with each progress payment.

N. Scope Change: A written document prepared by the Contractor detailing a change in the work scope as defined by the Contract with the amount of any adjustment to the Contract Sum approved by the appropriate local authority.

O. Wastewater: Spent or used water from remediation, decontamination, or water that has otherwise come in contact with contaminated surfaces, materials or equipment.

P. Work: The project efforts, shop work, services, labor, materials, equipment, and construction or demolition systems required to meet the requirements contained in the Contract Documents.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. Apply for, obtain, and pay all fees for notifications and Demolition Permits.

B. Completely demolish and remove buildings, structures, piping, equipment, and appurtenances, including, but not limited to, the following:

1. Buildings
   a. Dismantle, remove, and dispose all components and buildings in project area including the following:
      1) Fixtures and equipment, e.g., exposed piping, conduits, tanks, furnaces and refrigerators, etc.;
      2) All other structures, equipment, etc. shown or specified for demolition and removal;
      3) Drill floor slabs in accordance with **drawings S1.00-S1.04 and S2.01-S2.03**;
      4) Seal any openings/piping emanating from project area as part of the demolition;
      5) Water and floor drains shall be capped and abandoned-in-place;
      6) Storm & sanitary sewer pipelines emanating from the buildings to mainlines shall be filled with concrete and capped.

C. Perform all demolition work required to achieve the final site conditions shown on the Drawings regardless of whether specifically shown and specified or not. At the completion of the Work, within the Property boundaries, no existing structure, appurtenance, item, etc. shall remain unless explicitly shown or specified otherwise to remain. No waste shall accumulate on the Property or in any of the other site boundaries.

D. The Contractor shall concurrently perform equipment handling, decontamination, loading, transportation, and disposal as described in the Contract Documents. All equipment in buildings and structures to be removed shall become the property of the Contractor upon the execution of the Contract.

E. Clear and grade site as shown on the drawings.

F. Perform regulated materials removal in accordance with Section 02081 (Asbestos Abatement), Section 02085 (Lead-Containing Paint Activity), and Section 02095 (Regulated Material Removal) prior to demolition.

G. Remove and dispose of all demolished materials, rubbish, waste and debris. Recycling and/or disposal of all materials and waste generated as part of the Work

H. Demolition, removal, and disposal work shall be in compliance with the requirements of all local, state and federal laws and regulations.

I. Use of explosives is expressly prohibited unless approved by the appropriate local authority.

J. Maintain and protect structures to remain and associated appurtenances including, but not limited to the façade wall, adjacent properties, utility poles, security equipment, and exterior lighting.

K. Related Sections include, but are not limited to, the following:

1. Section 01010 -- Summary of the Work
2. Section 02081 -- Asbestos Abatement
3. Section 02085 -- Lead-Containing Paint Activity
4. Section 02095 -- Regulated Material Removal

1.02 REFERENCE STANDARDS

A. The Contractor shall comply with all applicable federal, state, and local laws, regulations, standards, and codes, including, but not limited to, those listed below. The following are applicable references and regulations, incorporated herein by reference:

1. 29 CFR Parts 1910 and 1926, including, but not limited to, 29 CFR Part 1926 Subpart T Demolition;
2. 40 CFR Part 761 -- Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions;
3. ANSI/ASSE 10.6-2006, Safety Requirements for Demolition for Construction and Demolition Operations;
4. NFPA 70E, Standard for Electrical Safety in the Workplace;
5. NFPA 241, Standard for Safeguarding Construction Alteration, and Demolition Operations;
6. National Association of Demolition Contractors (NADC) - Demolition Safety Manual, latest edition;
7. International Building Code, 2009 ed., as adopted and amended by 16 TAC §70.100 and §70.101;
8. NFPA Life Safety Code 101-2012 adopted by 28 TAC §34.303;
9. All applicable federal, state and county statutes, regulations, rules, and ordinances listed and referenced in Section 01524 (Materials and Waste Management);
10. All applicable health and safety standards and requirements listed and referenced in Section 01535 (Safety Program); and
11. All applicable OSHA requirements and other federal, state, and local codes, laws, ordinances, regulations, and guidelines for demolition and related work.

1.03 SUBMITTALS

A. Pre-Demolition Submittals

1. Demolition Plan: Obtain appropriate local authority approval a minimum of ten (10) business days prior to start of any Work specified in this Section to show respective coordination and conditions at each area of work. Plans shall indicate areas of demolition and removal locations, stockpile and laydown areas, proposed protections and controls, and details with descriptions of the various equipment types and construction aids to be used for work, staging stockpiles, and disposal of debris. The Demolition Plan must be approved by the appropriate local authority’s designated representative(s) prior to the start of Work specified in this Section. No claims of delay

shall be permitted due to the Contractor's failure to obtain approval of the Demolition Plan by the appropriate local authority's designated representative(s).

2. The Demolition Plan must specifically include at a minimum the following:
   a. Written description of proposed means and methods.
   b. The description of and results of the OSHA-required pre-demolition engineering survey.
   c. Shop drawings and associated calculations for structural demolition showing demolition sequence indicating removal of structural members, walls and floors for each structure and means of interior and exterior shoring, bracing, and structural support to preserve stability and prevent movement.
   d. Demolition Sequence Schedule indicating proposed methods and sequence of operation for demolition and removals for each structure. The Demolition Sequence Schedule shall consider and discuss overall stability requirements for the buildings that are connected structurally, including but not limited to, Unit 3 turbine foundation in the Turbine Room of the Generation and Control Building. Describe alternatives to the use of heavy equipment on portions of the Property which are not adequate to support heavy equipment.
   e. Description of methods for decontaminating, dismantling, removing, staging, transporting and disposing of equipment. Include description of methods to confirm all fluids, asbestos and regulated materials have been removed prior to dismantling and demolition.
   f. Description of methods for cleaning and filling and/or removing of piping systems, tanks, pumps, mechanical equipment, sumps, reservoirs, etc.
   g. Proposed Protection Measures: Submit informational reports, including drawings that indicate the measures, equipment, instruments, and materials proposed for protecting individuals, property and the environment, and for dust, sediment and noise control. Indicate proposed locations and construction of barriers, scaffolding, hoists, staging areas, etc.
   h. Insect and Rodent Control Scheme, including licenses of certifications required for implementation of the scheme.
   i. Vibration Monitoring and Response and Control Plan.
   j. Description of concrete crushing methods and equipment.
   k. Regulated Materials Management and Removal Plan in accordance with Section 02095 (Regulated Material Removal).
3. If required, Spill Prevention, Control, and Countermeasure (SPCC) Plan: Submit a minimum of 15 business days prior to start of any on-site Work, a Spill Prevention, Control, and Countermeasure Plan as described in Article 3.03.B of this Section.
4. Survey of Existing Conditions: Record existing conditions by use of pre-demolition photographs and areal drone video.
5. Rigging Plans: All rigging on the Project shall be performed by Licensed Riggers. The Contractor shall submit rigging plans showing rigging operations in detail when the lift exceeds 80% of the maximum capacity of the crane or hoist or requires the use of more than one crane or hoist.
6. Safety Data Sheets (SDS) for any products proposed for use on-site. Approval from the County and City is required prior to delivering any products to the Property.
7. If required, Temporary Shoring Plan as specified below in Article 3.02.D, must be submitted and approval by the Engineer must be obtained ten (10) business days prior to start of work of this Section.

8. Acknowledgement and approval by the appropriate local authority and designated representative(s) that utilities serving the structures to be demolished have been properly disconnected and abandoned.

B. During Demolition Submittals

1. Monthly receipts and tracking spreadsheet for non-regulated waste and materials.
2. Daily generator copies of shipping documentation and monthly tracking spreadsheet and executed manifests for regulated waste(s).
3. Immediate notification to the appropriate local authority of notice of violations, tickets, complaints, discrepancies, etc.

C. Post-Demolition Submittals

1. As part of Substantial Completion, the Contractor shall furnish a report identifying locations and elevations of all utilities within the limits of the Property. The report shall identify, on a scaled drawing, utilities which are active and utilities that have been cut and capped by the Contractor. Also, the report shall show in detail how each utility was capped/sealed.
2. As part of Substantial Completion, the Contractor shall furnish a certificate stating that subsurface structures, including but not limited to, buried piping closed in place, tunnels, pits, manholes, vaults, etc. have been sealed and filled to prevent future road and ground subsidence or settlement. The locations of all structures and piping closed in place shall be shown on a to-scale drawing submitted with the certificate.

1.04 CONDITION OF PREMISES

A. The Contractor shall accept the existing conditions of the premises and shall clear the site in accordance with the specifications. The appropriate local authority assumes no responsibility for the condition or the contents of the buildings, structures and facilities on the premises covered by the Contract Documents, nor the continuance of the conditions existing at the time of bidding or thereafter. All damage or loss, whether by reason of fire, theft, or by other casualty or happening, to the buildings, structures, and facilities covered by the Contract Documents shall be at the risk of the bidder from and after the date of award of Contract, and no such damage or loss shall relieve the successful bidder from any obligation under this Contract to complete all work as herein provided for the amounts bid.

B. The appropriate local authority accepts no responsibility for existing conditions at variance with information shown on the Drawings or specified.

C. There is no guarantee by the appropriate local authority that the number of fixtures, amount of equipment or any other material of value now existing in the buildings, structures, and facilities to be demolished and decommissioned will be present in the buildings or elsewhere on the premises. The Contractor shall have no claim against the appropriate local authority because of the absence of such fixtures, equipment, and/or materials.

1.05 MAINTENANCE OF TRAFFIC

A. The Contractor shall prepare and implement a Maintenance of Traffic (MOT) plan and conduct operations in a manner to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities. Do not close, block, or otherwise obstruct streets, roadways, grass areas, walkways, and other occupied and used facilities without written permission from the appropriate local authority, designated representative(s) , or authority having jurisdiction. Keep all interior and exterior roadways clean.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Material Restricted from Reuse

1. Remove all debris not explicitly designated to be salvaged from the premises and legally dispose of away from premises, except where permitted by paragraph B below. The expense of removing such material, and the value thereof, shall be taken into consideration at the time of making the bid. The work includes removal of stained and saturated concrete where present in structures to be demolished.

B. Fill Material

1. The Contractor shall comply with requirements of **drawings S1.00-S1.04 and S2.01-S2.03**; for fill material and compaction.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Prior to commencing demolition work, perform the following:

1. Visually inspect and photograph the adjacent areas, and structures and appurtenances of the surrounding properties. Record the existing conditions; submit all information to the designated representative(s) in accordance with Section 1.03 item 4 above. Thoroughly examine the buildings and structures for any of the following: Historical artifacts, including cornerstones and their contents; plaques and tablets; and other remaining articles of historic significance. If any is found (either prior to commencing demolition or during demolition work), carefully remove, clean, and deliver to the designated representative(s). These items may be retained by the appropriate local authority.
2. Items that are not desired to be retained by the appropriate local authority are to become the property of the Contractor and may be removed from the buildings and structures as work progresses. Transport of salvageable items from the Property as they are removed, and sale of the removed items will be credited to the appropriate local authority.
3. The Contractor shall ensure that all known piping to and from structures that are to be demolished or decommissioned has been sealed prior to commencing any destructive activities, except for piping specified to remain.
4. The Contractor shall ensure that all electrical power supply to structures has been deactivated prior to any demolition or removal activities.

5. Verify and obtain designated representative(s) approval that utilities have been disconnected and capped before starting demolition operations.
6. Verify that asbestos-containing and regulated materials have been removed before proceeding with demolition operations.

B. Unless directed otherwise, if, during demolition, decommissioning or removal, additional piping leading into or out of the structures is discovered, the piping shall be cleaned and abandoned-in-place and capped or plugged by the Contractor using a method acceptable to the designated representative(s). Notify the designated representative(s) immediately upon discovery of such piping and prior to proceeding.

C. Liquids within piping shall be handled in the following manner:

1. Prior to piping disturbance, determine pipe contents through physical inspection, if possible, by an evaluation of the pipe ends (e.g., connections to tanks), and/or through review of facility documents.
2. Piping shall be sampled for combustible atmosphere with non-sparking tools prior to cutting so that plans can be put in place to prevent ignition.
3. Piping shall be cut using non-sparking cut-off saws and/or other suitable pipe cutting equipment. Prior to cutting erect containment to prevent release of liquid. Employ necessary health and safety procedures for piping containing hazardous or regulated materials.
4. Air monitoring for VOCs, odors, dust, and explosive conditions shall be conducted at all times during piping disturbance.
5. Initial cuts shall be at the low point of the run and if liquids are encountered, plugs and caps shall be utilized to stop liquid flow.
6. Buckets, drums and/or containers shall be used to collect liquid if present within secondary containment. The plugs and/or caps shall be released to enable liquid flow to be collected. Liquids shall be transferred to drums appropriate for storing the liquid types encountered.
7. Drums shall be labeled, and temporarily staged as hazardous waste, pending possible reclassification following sampling, analysis, and characterization of the contents.
8. Once void of liquid and hazardous/flammable vapors, piping shall be cut, sized, and staged on, bermed, and covered by, minimum 20-mil thick polyethylene sheeting, properly secured, for subsequent off-site disposal/recycling.
9. All spills are to be reported to the appropriate local authority and designated representative(s) immediately.

3.02 PREPARATION AND PROTECTION

A. Existing Utilities: Locate, identify, disconnect, and seal or cap off indicated utilities serving buildings and structures to be deconstructed and demolished:
1. Arrange to shut off and disconnect utilities with the appropriate local authority and the designated representative(s).
2. Verify all pipes have been capped, valved, or sealed, including those to be capped by the appropriate local authority, according to requirements of by the appropriate local authority prior to start of demolition.
3. Utility disconnecting schedule to be coordinated between Contractor and the designated representative(s).

4. Maintain utility services to remain and protect from damage during demolition operations.

B. Remove temporary barriers and protections where hazards no longer exist. Where open excavations or other hazardous conditions remain, leave temporary barriers and protections in place.

C. Employ a certified exterminator and treat buildings and structures in accordance with governing regulations for rodent and insect control. Contractor shall submit a written certification to the designated representative(s) stating that all insects, rodents, pests, and other animals have been removed from all structures.

D. Temporary Shoring: Provide and maintain engineered interior and exterior shoring, bracing, and structural support to preserve stability and prevent movement, settlement, and collapse of construction to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished or decommissioned. Temporary Shoring Plan shall be provided by a registered Professional Engineer licensed to practice engineering in the State of Ohio and submitted to the Engineer. The Professional Engineer retained by the Contractor shall also be responsible for construction supervision and inspection of such and for obtaining all required appropriate local authority's permits and approvals.

E. Strengthen or add new supports when required during progress of demolition and decommissioning. Such recommended designs shall be solely provided by a registered Professional Engineer retained by the Contractor and licensed to practice engineering in the State of Ohio.

F. Temporary Protection: Erect temporary protection, such as walks, fences, railings, canopies, bridges, and covered passageways, where required by appropriate local authorities having jurisdiction and the designated representative(s), and as indicated:

1. Protect adjacent property, buildings and facilities from damage due to demolition and decommissioning activities.
2. Protect existing site improvements, appurtenances, and landscaping to remain.
3. Support piping on either side of openings created when adjacent sections are removed.
4. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
5. Provide protection to ensure safe passage of people and vehicles around demolition and decommissioning areas.
6. Protect walls and other adjacent exterior construction that are to remain, and that are exposed to demolition operations.

G. The Contractor shall not remove the roof of any building or structure until all regulated materials and tanks, systems and pumps have been drained and cleaned in accordance with Section 02081 (Asbestos Abatement), Section 02085 (Lead-Containing Paint Activity), and Section 02095 (Regulated Material Removal).

H. Protect structures, underground and aboveground utilities and any other construction to remain from damage caused by demolition operations. If unmarked or unknown utilities

are uncovered during work, notify the designated representative(s) to receive further instructions prior to proceeding further. Should damage to adjacent construction or utilities occur due to the Work, all costs in connection with the repair of such damage and the restoration of damaged construction to its original condition shall be borne by the Contractor.

I. The Contractor shall ensure that structural elements are not overloaded and shall be responsible for increasing structural supports and adding new supports as required as a result of any cutting, removal, or deconstruction work performed under this Contract. Any support required shall be designed by a Professional Engineer licensed in the State of Ohio. Repairs, reinforcement, and structural replacement must have the Engineer's approval.

J. Contractor shall remove all equipment and ancillary components from inside the buildings prior to demolition. This includes, but is not limited to, roofing, wood and wood timbers, metal objects, piping, boilers, engines, generators, electrical systems and components, conveyance systems, movable objects, office equipment. The buildings shall be empty (to bare concrete) and approved by the appropriate local authority and designated representative(s) prior to demolition and backfilling with approved materials.

K. Protection of Adjoining Property

1. The Work of demolishing the buildings and structures shall be carried out in a manner that will protect adjacent property against any damage that might occur from falling debris or other cause and so as not to interfere with the use of adjacent buildings and structures or the free and safe passage to and from the buildings and structures.
2. The Contractor shall take every precaution to guard against any movement or settlement of adjacent buildings, streets, sidewalks, embankments, retaining walls, and facilities caused as a result of the Work. The Contractor shall be solely and entirely responsible for the safety and support of such buildings, structures, and facilities, and shall be solely liable for any such movement or settlement and any damage or injury caused as a result of the Work.
3. Where the waterproof integrity of an adjoining structure has been impaired due to deconstruction or demolition, the Contractor shall provide all necessary measures to permanently waterproof the adjoining structure:
    a. All work required for structural stability and permanent waterproofing of adjacent structure must be completed prior to project close-out.
    b. At the completion of demolition operations, the Property shall be restored as shown on the Drawings.
4. Whenever any building is to be demolished at an elevation higher than the roof of an adjoining structure, the Contractor is to protect the roof of the adjoining structure from damage.

L. Salvage

1. The appropriate local authority shall not retain any salvage proceeds for this work. Unless otherwise specified, the contractor shall proceed with management for all materials, wastes, debris and salvageable items generated as part of this work.

M. Precautions

1. The work of demolition shall be carried out in every respect in a thorough and workmanlike manner. The Contractor shall provide all materials, labor and machinery necessary and shall place proper and sufficient lighting, guards, barricades, fences and warning signals by day and by night for the prevention of accidents. The Contractor shall indemnify and hold harmless the appropriate local authority, its officers, employees, agents and servants and each of them against any and all suits and actions, claims and demands of every name and description brought against it, them, or any of them against and from all damage and costs to which it, they or any of them may be put by reason of injury to the person or property of another, resulting from negligence or carelessness in the performance of the Work, or in guarding the same, or from any improper or defective material or machinery, implements, or appliances used in the removal of said buildings, structures, and facilities.
2. All reasonable precautions shall be taken against fire throughout all the Contractor's operations. The amount of flammable material shall be reduced to a minimum consistent with the proper handling and storing of materials. Provisions shall be made for the extinguishing of fires, as required by the Fire Department, Fire Marshal and all authorities having jurisdiction. The Contractor shall not permit any fires.

3.03 CONTROL AND HANDLING OF PETROLEUM PRODUCTS, CHEMICALS AND OTHER HAZARDOUS MATERIALS

A. The Contractor shall conduct fueling and lubrication of equipment and vehicles in a manner that prevents spills and volatilization. The Contractor shall properly dispose of all excess oil, lubricants, and fuels in accordance with local, state, and federal regulations. The Contractor shall provide adequate secondary containment (a minimum of 110% of the container's volume plus additional freeboard for the 24-hour/25-year storm rainfall event [if not isolated from rainfall]) for all containers or aggregate containers containing over 55-gallons in size that contain fuel, oil, or other hazardous substance. The Contractor shall provide secondary containment for fueling areas to capture spills from hoses and overfilling of equipment or machinery.

B. If required by regulation, the Contractor shall provide a Spill Prevention, Control, and Countermeasure (SPCC) Plan that:

1. Describes and shows how the Contractor will prevent release of oils, chemicals, fuel and other hazardous materials.
2. Describes how the Contractor will respond to spills and releases.
3. Identifies the location of spill response materials and equipment to be stored and replenished for the duration of the Contract.
4. Describes the training plan to train on-site workers on how to prevent and respond to spills.
5. Describes the notification procedures to be implemented in the event of a release.

C. The Contractor shall provide all labor, materials, and equipment to clean up spills of fuel, oil, chemicals or other fluids from Contractor vehicles or equipment. The Contractor shall clean up spills in accordance with applicable law and regulations and to the satisfaction of the appropriate local authority designated representative(s).

D. The Contractor shall report all release of fuels, oil, lubricants, and any other chemical products, regardless of amount, to the appropriate local authority and designated representative(s) immediately. The Contractor shall document the spill occurrence in writing to the designated representative(s). Any costs incurred by the appropriate local authority for spill response and remediation shall be back-charged directly to the Contractor. The appropriate local authority shall notify the required authorities, if required.

E. The Contractor shall make every effort to contain any spilled materials (e.g. oils, chemicals, hazardous materials, fuel) and prevent spilled materials from entering the environment.

F. No fuel, oil, chemicals or other fluids shall be released onto land or into any waterbody including the Canal, wastewater, or storm drains during the Work.

G. All piping systems, tanks, pumps, mechanical equipment, sumps, reservoirs, etc. that are to be removed or abandoned, and that are known or suspected to contain liquids shall be flushed and purged of liquids by a fluids removal service company prior to any equipment removal or piping cutting/disconnection. The fluids removal service company must be pre-approved by the appropriate local authority prior to performing the Work. The work of this Contract includes sampling and testing of liquids for proper waste characterization and disposal.

H. At a minimum, piping systems, tanks, pumps, mechanical equipment, sumps, reservoirs, etc. that are known or suspected to have transported or contained fuel oil, turbine oil, turbine bearing fluid, lube oil, other oil, lubrication liquids, dielectric liquid or fuels, wastewater, caustics, hazardous chemical and other contaminated liquids during operations including both above and below ground piping and components shall be flushed/vacuumed by the pre-approved liquid vacuuming service company.

I. The removed liquids shall be characterized and disposed in accordance with applicable laws and regulations at approved licensed disposal facilities within the State, County, and or City.

J. The Contractor and the liquid vacuuming service company shall provide all labor, materials, equipment, storage tanks, characterization sampling, laboratory analysis, and transportation to remove and dispose of all the liquids.

K. The Contractor shall assume all piping and equipment have residual fluids when cutting and removing piping and equipment. The Contractor shall provide drip pans and/or containment when cutting and/or removing pipes and equipment to prevent releases to the environment.

3.04 DEMOLITION WORK

A. Unless specifically approved by the appropriate local authority, and designated representative(s), the Contractor is prohibited from employing the following demolition means and methods:

1. Employing explosives.
2. Employing wrecking ball.

3. Employing helicopters.
4. Weakening and pulling over structures greater than 50 feet in height.
5. Demolishing structures without removal of major equipment (e.g., steam drums, boilers and headers, etc.).
6. Employing mechanical methods adjacent to any structure to remain.
7. Allowing structural members and large equipment to fall to grade.
8. Generating uncontrolled dust and debris adjacent to site boundaries, waterbodies and any structure to remain.

B. The Contractor shall remove asbestos-containing and regulated materials prior to demolition. The Contractor shall notify the designated representative(s) and arrange for inspection by the designated representative(s) of additional suspect material, if any encountered during demolition. The Contractor must obtain the designated representative(s)' approval prior to removal and disposal of suspect materials.

C. The local fire department will be notified through the appropriate local authority and/or the designated representative(s) of upcoming demolition operations in writing not less than ten (10) days prior to the scheduled start date of the demolition. The written notice shall provide a description of the work to be performed, the timeframe and schedule, and contact information for the Contractor's responsible Project Manager.

D. Steel, reinforced concrete construction shall be demolished column length-by-column length and tier-by-tier. Any structural member that is being dismembered shall not support any load other than its own weight, and such member shall be chained or lashed in place to prevent any uncontrolled swing or drop. Structural members shall not be thrown or dropped from the building but shall be slowly and carefully lowered in a controlled manner by hoists equipped with adequate brakes and non-reversing safety devices.

E. Demolition operations shall be performed in a systematic manner.

F. Sections of masonry walls shall not be loosened or permitted to fall in such masses as to affect the carrying capacity of floors or the stability of structural supports.

G. No wall, chimney, or other structural part shall be left in such condition that it may collapse or be toppled by wind, vibration or any other cause.

H. Proceed with demolition of structural framing members systematically, from higher to lower level. Complete building demolition operations above each floor or tier before disturbing supporting members on the next lower level.

I. No bearing partition shall be removed from any floor until the floor framing system on the floor above has been removed and lowered. All header beams and headers at stair openings and chimneys shall be carefully examined, and where required shall be shored from the cellar floor through successive floors. All operations shall be continually inspected as the work progresses to detect any hazards that may develop.

J. Material shall not be stored on catch platforms, working platforms, floors or stairways of any structure except that any one floor of a building to be demolished may be used for the temporary storage of material when such floor can be evaluated by a Professional Engineer licensed in the State of Ohio and proven to be of adequate strength to support

one and one-half times the load to be superimposed. Such evaluation by the Professional Engineer shall be maintained at the Property and submitted to the Engineer. Storage spaces shall not interfere with access to any stairway or passageway and suitable barricades shall be provided so as to prevent material from sliding or rebounding into any space accessible to the public. All material shall be safely piled in such storage locations in a manner that will not overload any part of the structure or create any hazard.

K. Remove debris from elevated portions of the building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

1. Remove structural framing members and lower to ground by method suitable to prevent ground impact and dust generation.
2. Do not drop structural framing members to the ground.

L. Debris, bricks, and similar material shall be removed through openings in the floors of the structure, or by means of chutes, buckets or hoists that comply with OSHA regulations. Openings in any floor shall not aggregate more than 25 percent of the area of that floor unless it can be shown by submission from a Professional Engineer licensed in the State of Ohio that larger openings will not impair the stability of the structure. Every opening used for the removal of debris in every floor, except the top or working floor, shall be provided with a tight enclosure from floor to floor, equivalent to that afforded by planking not less than two (2) inches in thickness. Wherever such covering has been temporarily removed to permit debris removal, floor openings shall be protected with guardrails that meet the requirements of 29 CFR 1926. Such covering shall be promptly replaced in position upon the ceasing of such work at the end of each workday. Every opening not used for the removal of debris in any floor shall be solidly planked over.

M. Structural steel members shall be disassembled by unbolting or torching. The Contractor shall comply with the OSHA Lead Construction Standard and must receive approval from the appropriate local authority and the designated representative(s) for the Contractor's lead abatement process. Large sections or levels of structural steel framing shall be cut at the uppermost level and lowered with a crane to be disassembled on the ground. Structural members shall not be dropped from upper levels to the ground.

N. Do not bring explosives to Property or use explosives in any capacity to perform this work unless prior approval is granted by the appropriate local authority, and the designated representative(s).

O. INTENTIONALLY LEFT BLANK

P. Removal, transportation, storage and disposal of hazardous, flammable, toxic, and corrosive substances, if any, shall be in strict compliance with governing laws and regulations.

Q. Perform surveys as the Work progresses to detect hazards resulting from demolition activities. Submit findings as part of Contractor's Daily Notes.

R. Demolish, to elevations shown on Drawings or specified. Perform all demolition work required to furnish the final site conditions shown on the Drawings regardless of whether

specifically shown and specified or not. At the completion of the Work, within the site boundaries, no existing structure, appurtenance, item, etc. shall remain unless explicitly shown or specified to remain. Remove all materials including flooring above concrete slabs and equipment associated with each building, structure, and facility. Use such methods as required to complete work within limitations of governing regulations. Fences and walls on or near property lines shall not be removed if these are used for protection or support of adjoining property. Remove and replace structures on adjoining properties to complete the Work. Obtain designated representative(s)' approval prior to any work outside Property boundaries.

S. ITEM INTENTIONALLY LEFT BLANK

T. Wetting Down

1. During the demolition of buildings and structures, thoroughly wet down the Work to prevent any dust and dirt from rising. The Contractor shall provide water pumps, piping, hoses, etc. for this purpose and furnish all power connections, at Contractor's own cost and expense. The contractor will pay for power or water used. Water supplied by the appropriate local authority will be non-potable. Do not use more water than necessary for dust control.
2. Upon completion of the Work, all temporary water and other temporary facilities installed by the Contractor shall be removed by the Contractor at Contractor's own cost and expense. Do not create hazardous or objectionable conditions such as ice, flooding and pollution.

U. Utility Lines

1. Contractor shall completely remove aboveground portion of abandoned utilities and utilities to be isolated and abandoned by the Contractor and the appropriate local authority, and cap/seal below final specified ground surface coverings.
2. The Contractor shall disconnect, cap and/or seal, all site utilities in place as shown on the Drawings and as specified.

V. Immediately remove all excess debris from the Property, do not store or permit to accumulate on the Property. If the Contractor fails to remove excess debris promptly, the appropriate local authority reserves the right to have it removed from the site at the expense of the Contractor.

W. Routine Cleaning: The Contractor shall keep interior roadways and adjacent public roads and properties free of dirt, dust and debris produced by demolition at all times.

X. The Contractor shall clean via power-washing all concrete and masonry to be removed and reused and all concrete and paved surfaces to remain in place. Power-washing shall be performed to remove staining, etc. to the satisfaction of the designated representative(s). Floor drains and sumps shall be sealed prior to any on-site work. Remove and containerize wash water and residual liquids and debris in accordance with other sections of this specification.

3.05 DISPOSAL

A. Transport and legally dispose of materials and waste. Comply with applicable regulations, laws, and ordinances concerning removal, handling, and protection against exposure and environmental pollution. The Contractor shall only utilize fully licensed and permitted transporters as approved by the appropriate local authority.

B. Do not allow demolished materials to accumulate on-site.

C. Remove debris from elevated portions of structure by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

D. No waste shall be transported off-site without prior approval from the appropriate local authority and designated representative(s).
E. All waste disposal documentation must be signed by the property owner or specifically approved designee.

F. Comply with requirements for management of materials and waste in accordance with other sections of this specification.

3.06 CLEAN-UP

A. Upon completion of the Work under this Contract, the Contractor shall remove all tools and materials, plant, apparatus, waste, rubbish and debris and shall leave the premises clean, neat and orderly. Comply with Contract Documents for site restoration.
B. Clean adjacent structures and improvements of dust, dirt, and debris related to building deconstruction and demolition operations. Return adjacent areas to condition existing before demolition work began or as specified and as approved by the appropriate local authority and designated representative(s).

3.07 LIST OF SUBMITTALS

A. The Contractor shall provide the submittals listed below and in this Section.

SUBMITTAL	DATE SUBMITTED	DATE APPROVED
Pre-Construction		
1. Demolition Plan, including:		
a. Written Description		
b. Demolition Sequence Schedule		
c. Maintenance of Traffic Plan (MOT)		
d. Insect and Rodent Control Scheme including licenses and certifications		
e. Stom water protection plan		
f. Temporary Shoring Plan		

END OF SECTION

PART 1 - GENERAL

A. Asbestos abatement includes work during demolition or salvage of structures where asbestos is present; removal, encapsulation or enclosure of materials containing asbestos; alteration, repair, maintenance or renovation of structures, substrates or portions thereof, that contain asbestos; asbestos release/emergency cleanup; and transportation, disposal, storage, containment of and housekeeping activities involving asbestos and/or products containing asbestos.

B. This specification is performance based and is not a project design. This specification entails removal and disposal of asbestos-containing materials (ACMs) from the Two Downtown Properties 128/130 N. Sandusky Ave, Upper Sandusky, Ohio 43551 (the PROJECT).

C. This specification refers to the following; The OWNER refers to WYANDOT COUNTY the CONTRACTOR refers to the individual or company under contract to perform the asbestos abatement put forth in this specification, the ENGINEER and/or CONSULTANT refers to the firm designated to oversee CONTRACTORS work during asbestos abatement.

1.01 SUMMARY

A. The Contractor shall furnish all labor, materials, services, insurance, permits, supplies, equipment, power, facilities, and incidentals necessary to abate asbestos-containing materials (ACMs) that will be impacted by the proposed Work, as shown on the Asbestos Abatement Drawings and as conveyed in the Contract Documents. The work shall be conducted in accordance with all federal, state, and local regulations (latest editions).

B. ACM shall be removed as identified in Table 1 '*Asbestos Positive Materials: Two Downtown Property 128/130 N. Sandusky Ave'* and Appendix A '*Limited Hazardous Materials Survey Report for Two Downtown Properties 128/130 N Sandusky Avenue, Upper Sandusky, Wyandot, Ohio 43551'* as prepared by TRC Environmental Corporation on March 29, 2024.

ALL QUANTITES ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY FOR BIDDING PURPOSES.

Table 1

Asbestos Positive Materials Two Downtown Properties 128/130 N. Sandusky Ave					
Samples	**Material**	**Location**	**Percentage/ Type**	**Approx. Quantity**	**Condition / Material Type / NESHAP Category**
BM-01A BM-01B BM-01C	Black Mastic Pucks/Streaks	Near Southeastern Entrance, Northwestern Wall Of Dining Room, Central Wall Of Dining Room On Northwestern Portion, Second Floor On Central Wall	3% Chrysotile	306 SF	Damaged Misc. Cat II

1.02 TERMINOLOGY

A. The following commonly used terms are defined in the context of this Section:

1. Abatement: Procedures utilized to control or decrease fiber release from asbestos containing building materials or insulation material containing asbestos. Includes repairs, removal, enclosure, and encapsulation.
2. Aggressive Sampling: Air monitoring samples collected while a leaf blower, fans, or other such devices are used to generate air turbulence within the work area.
3. Air Filtration Device (AFD) - A portable local exhaust system equipped with High Efficiency Particulate Air (HEPA) filtration, capable of maintaining a constant low velocity air flow into contaminated areas from adjacent, uncontaminated areas and capable of maintaining a negative air pressure with respect to the adjacent, uncontaminated areas.
4. Air Lock: A system for permitting ingress or egress to the work area while permitting minimal air movement between a contaminated area and an uncontaminated area, typically consisting of two curtained doorways placed a minimum of three feet apart.
5. Air Monitoring: The process of measuring the fiber content of a specific volume of air in a stated period of time. Personal air sampling results shall be calculated to reflect the employee's eight-hour time weighted average (TWA) exposure. Area sampling results are reported directly, without calculating the TWA.
6. Amended Water: Water to which a surfactant has been added.
7. Asbestos-Containing Material (ACM): Any material or product which contains more than 1 percent asbestos.
8. ENGINEER and/or CONSULTANT refers to the firm designated to oversee CONTRACTORS work during asbestos abatement
9. Asbestos Project Monitor (Project Monitor or Third-Party Monitor) -a person that has completed a forty-hour class in asbestos management and is certified to act as an on-site Owner's representative or project management capacity. Any person, other than the asbestos contractor/supervisor, who oversees the scope, methodology or quality control on an abatement project must maintain the Project Monitor certification. This includes those who shall act in a third party and/or Owner’s representative capacity.

In some cases, the Project Monitor may also serve as the air sampling technician, but the air sampling technician cannot be the Project Monitor unless they have completed the required training.

10. Asbestos Removal Encapsulant: A chemical solution used in place of amended water during asbestos removal to penetrate, bind, and encapsulate the asbestos containing material.
11. Authorized Visitor: Representatives of any regulatory or other agency having jurisdiction over the project.
12. Certified Industrial Hygienist (CIH): Individual certified in the comprehensive practice of industrial hygiene by the American Board of Industrial Hygiene.
13. Class II Asbestos Work: Activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing, and siding shingles, and construction mastic.
14. Class I Asbestos Work: Activities involving the removal of thermal system or surfacing materials.
15. Competent Person: Definition and responsibilities as defined in 29 Code of Federal Regulations (CFR) 1926.1 l0l(b) and as outlined herein.
16. Contractor: A business entity that is experienced and licensed in the State of Ohio to execute the removal of asbestos containing materials.
17. Decontamination Enclosure System: A series of connected rooms for the decontamination of workers (a Personnel Decontamination Enclosure System) or of materials and equipment (Equipment Decontamination Enclosure System).
18. Equipment Decontamination Enclosure System: A decontamination system for waste materials and equipment, typically consisting of a designated area of the work area, a washroom, and a holding area, with an air lock between any two adjacent rooms and a curtained doorway between the holding area and the non-work area. Not to be used for personnel entry/exit.
19. Encapsulant (Sealant): A liquid material which can be applied to ACM and which controls the possible release of asbestos fibers from the material, either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).
20. Encapsulation: Application of an encapsulant to asbestos containing building materials to control the possible release of asbestos fibers into the ambient air.
21. Enclosure: Procedures necessary to completely enclose ACM behind air-tight, impermeable, permanent barriers.
22. Engineer: That individual or individuals that have been authorized by the City to act on their behalf in the execution of this project.
22. Excursion Limit (EL): The EL is an airborne concentration of asbestos to which no employee shall be exposed when not using respiratory protection. The EL is 1.0 fiber per cubic centimeter (flee) as averaged over a 30-minute period.
23. Fixed Object: A unit of equipment or furniture in the work area which cannot be removed from the work area.
24. Friable: Any material which, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure.
25. Full Facepiece High Efficiency Respirator (FFHER): A respirator which covers the wearer's entire face from the hairline to below the chin and which is equipped with a HEPA filter.

26. Half Face Respirator with High Efficiency Particulate Air Filters (HFR): A respirator which covers one-half of the wearer's face, from the bridge of the nose to below the chin, and is equipped with HEPA filters.
27. HEPA Filter: A high efficiency particulate air (HEPA) filter capable of trapping and retaining 99.97 percent of airborne fibers 0.3 micrometer or larger in diameter.
28. HEPA Vacuum Equipment: High Efficiency Particulate Air (HEPA) filtered vacuuming equipment having a UL 586 filter system capable of collecting and retaining asbestos fibers.
29. Large Asbestos Project or Asbestos Hazard Abatement Project: Large asbestos project shall mean an asbestos project involving the disturbance (e.g. removal, enclosure, and encapsulation) of 50 linear feet or more of friable asbestos-containing material or 50 square feet or more of friable asbestos-containing material.
30. Lockdown: Procedure of applying an encapsulant as a protective coating or sealant to a surface from which ACM has been removed in order to control and minimize airborne asbestos fiber generation that might result from residual asbestos containing debris.
31. Minor Asbestos Project or Asbestos Hazard Abatement Activity: Minor project shall mean a project involving the disturbance (e.g. removal, enclosure, encapsulation, and repair) of 3 linear feet or less of friable asbestos-containing material or 3 square feet or less of friable asbestos-containing material.
32. Plasticize: To cover floors and walls with plastic sheeting as herein specified.
33. Permissible Exposure Limit (PEL): The PEL is an airborne concentration of ACM to which no employee shall be exposed when not using respiratory protection. The Occupational Safety and Health Administration (OSHA) PEL is 0.1 fiber per cubic centimeter (f/cc) of air expressed as an 8-hour time weighted average (TWA).
34. Personnel Decontamination Enclosure System: A decontamination system for personnel and limited equipment, typically consisting of an equipment room, shower room, and clean room, with an air lock between any two adjacent rooms, and a curtained doorway between the equipment room and the work area, and a curtained doorway between the clean room and the non-work area. The decontamination system serves as the only entrance/exit for the work area.
35. Powered Air Purifying Respirator (PAPR): Either a full face-piece, helmet, or hooded respirator that powers breathing air to the wearer after the air has been purified through a HEPA filter.
36. Regulated Area: An area established by the Contractor to demarcate areas where Class I, II and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos, exceed or there is a reasonable possibility they may exceed the PEL.
37. Removal: The act of removing and transporting asbestos containing or asbestos-contaminated materials from the work area to an approved disposal facility.
38. Wyandot County is the Owner of the Project.
39. Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.
40. Mini-Enclosure Procedure: A method of limited application for the removal at any one time of less than 50 linear feet or 50 square feet of ACM. Mini-enclosure procedures shall be accomplished in a constructed or commercially available plastic tent, plasticizing and sealing all surfaces not being abated within the periphery forming an enclosure. The enclosure or tent shall consist of two layers of 6-mil plastic at a minimum, with seams stapled and taped airtight and then taped flush with the adjacent

tent wall. Engineering controls shall include a HEPA filtered air filtration device to continuously exhaust the work area. Negative air shall be demonstrated by smoke testing.

41. Third Party Monitoring/Sampling Firm: An independent firm employed to provide project monitoring and air sampling services throughout the project. The Third-Party Monitoring/Sampling Firm shall provide only State of Ohio licensed air sampling personnel to perform those tasks.
42. Type C Respirator: A respirator which supplies air to the wearer from a source outside the work area by means of a compressor.
43. Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with amended water or asbestos removal encapsulant and disposing of these cleaning tools as asbestos contaminated waste. Dry sweeping is not allowed.
44. Work Area: Designated rooms, spaces, or areas of the project where asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A contained work area has been sealed, plasticized, and equipped with an airlock entrance or a decontamination enclosure system. A non-contained work area is an isolated or controlled access area which has not been plasticized.

1.03 SCOPE OF WORK

A. The Contractor shall remove the thermal system insulation (TSI), acoustical ceiling plaster and listed miscellaneous ACM in each of the buildings listed in Appendix A, '*Limited Hazardous Materials Survey Report for Two Downtown Properties 128/130 N Sandusky Avenue, Upper Sandusky, Wyandot, Ohio 43551'* The Contractor shall field verify the amount of ACM to be abated and familiarize himself with all variable field conditions before the submission of bid. The quantities presented in Appendix A are approximate and should not be used solely as the basis for any bids and bidding Contractors should field verify quantities and site conditions prior to submission of bids during any pre-proposal site visits. The Contractor is responsible for removal of asbestos material as identified in the bid documents. The asbestos abatement shall be completed as described in Appendix A and Table 1 above.

1. The general sequence of ACM removal operation shall be from most friable to least friable materials and from most damaged to least damaged.
2. Removal of other regulated material and/or hazardous materials shall be coordinated with the asbestos abatement so as not to commingle waste streams.
3. Table 1 and Appendix A are the approximate quantities of ACM materials to be removed and their general locations, contractor shall verify quantities.

B. The asbestos removal related work for the project includes, but is not limited to the following:

1. The quantities presented in Table 1 and Appendix A are approximate and should not be used solely as the basis for any bids and bidding Contractors should field verify quantities and site conditions prior to submission of bids during any pre-proposal site visits. The Contractor is responsible for removal of asbestos material as identified in the bid documents. The asbestos abatement shall be completed as described in Appendix A.

2. In the event that concealed suspect materials not included in Appendix A are encountered while the Work is in progress, such material shall be tested by the Engineer and, if it is confirmed ACM and the Engineer gives directive for its removal, the Contractor shall remove as ACM, in accordance with the procedures contained herein. The Contractor will not be compensated for the previously unidentified ACM and schedule extension(s) will not be granted.

C. Included in the Contractor's Scope of Work are:

1. Provide approved guarding on top of all movable and fixed scaffolding units in the work area to prevent accidental fall. The Contractor shall provide a scaffold system for elevated abatement work. The platform shall be of adequate size to allow the work to proceed safely. Scaffolding board/planks shall be fire retardant. The detailed design and installation of the scaffolding system, with a solid platform and guardrails shall be designed, approved, signed, and sealed by a State of Ohio licensed Professional Engineer (PE) and submitted to the appropriate local authorities for review and approval. The Professional Engineer's design shall be submitted with the work plan as part of the pre-project submittals.
2. The Contractor shall have fire suppression inside the designated work areas during all abatement activities.
3. The Contractor shall install a lockable, fully framed, and hard wall sheathed worker personnel and waste load-out decontamination unit(s) contiguous to the work area.
4. Power tools used to drill, cut, or otherwise disturb asbestos material in regulated abatement work areas, shall be manufacturer equipped with HEPA-filtered local exhaust ventilation.
5. Before starting removal/abatement the Contractor shall pre-clean areas free of debris and suspect loose ACM. Using HEPA vacuum, wet wiping, followed by HEPA vacuum. Repeat until adequately cleaned, to be verified by the Asbestos Project Monitor.
6. Remove all pipe and pipe joint/fitting insulation including materials behind plenum areas.
7. All loose materials and materials dislodged inside all abatement enclosures including but not limited to all fiberglass materials, loose paint, damaged portions of walls and ceiling materials piled on the floor shall be removed as ACM.
8. The Contractor shall be responsible for the segregation and disposal of other hazardous and regulated wastes from ACM waste during the Work. Removal of other regulated and/or hazardous material shall be coordinated with the asbestos abatement so as not to comingle waste stream. See Specification Sections:
   a. 02082 -- PCB Collection, Handling and Disposal
   b. 02085 -- Lead Containing Paint Activity
   c. 02095 --Regulated Material Removal, and

1.04 CONTRACTOR'S HEALTH AND SAFETY PLAN

A. The Contractor shall provide a written Health and Safety Plan (HASP) to protect workers and building occupants from possible hazards based on the Contractor's evaluation of the tasks to be performed. The Contractor shall submit the HASP to the appropriate local authorities at least two (2) weeks prior to commencing any on-site activities for the appropriate local authorities' review. A competent on-site person to supervise the project and implement all safety requirements shall be required at all times. See related document

Section 01535 - Safety Program. At a minimum, the following topics shall be addressed in the plan:

1. Hazard Communication. Procedure on how physical and health hazards associated with the Work are identified and communicated to employees, and name of the person responsible for implementation of the Hazard Communication Program.
2. Guidelines for assessment and prevention of heat stress.
3. Procedures for using ladders and scaffold safely.
4. Electrical safety procedures.
5. Hazard and exposure assessments and determination of what engineering controls, Personal Protective Equipment and/or monitoring are needed to ensure that exposure remains within OSHA requirements.
6. Training records and medical releases for all on-site abatement personnel; supervisors and workers.
7. Employer's respiratory protection program.
8. Employee respirator fit tests.
9. Safety Data Sheets (SDS).

1.05 EMERGENCY ACTION PLAN

A. Provide a written Emergency Action Plan (EAP) that outlines the contingency actions to be performed for emergencies including, but not limited to; severe weather, fire, accident, power failure, safety system failure, and breach of work area dust barrier. This EAP shall identify the manner in which emergencies are announced, emergency escape procedures and routes, and procedures to account for all employees after evacuation. The EAP shall identify those persons responsible for fire/life safety duties including the Site Safety Coordinator, persons responsible for fire prevention equipment and the control of fuel source hazards, and the members of the Emergency Response Team (see Paragraph "Emergency Response". See related document Section 01535 --"Safety Program"). This EAP shall be readily available for review by all workers.

B. Fall Protection Plan

1. Provide a written Fall Protection Plan (FPP) that outlines the actions to be performed to protect personnel when they are working at elevation. The FPP shall detail specific fall protection devices to be utilized, training provided to personnel for same and training of designated competent person in charge of and responsible for the elevated work. The FPP shall, at a minimum, incorporate and comply with current OSHA requirements and include certificates of training for fall protection for employees working on elevated surfaces.

1.06 ASBESTOS REMOVAL / DISPOSAL WORK PLAN

A. The Contractor shall prepare a written, detailed Asbestos Removal / Disposal Work Plan with attached containment shop drawings and submit them to the appropriate local authority no less than two-weeks prior to mobilization. The plan shall include, at a minimum, the following items:

1. Discussion of the general project overview.
2. Copies of the Contractor's State of Ohio registration as an abatement contractor in the State of Ohio.
3. Documentation of the Contractor's experience in asbestos abatement projects of similar size and nature (Contractor's Qualifications).
4. Emergency telephone numbers for local emergency responders such as police, fire and emergency medical services.
5. Detailed site logistics detailing how the project will be performed including work practices, engineering controls, manpower requirements and proposed work schedule.
6. Detailed abatement procedure for interior work.
7. Detailed abatement procedure for exterior work.
8. Containment locations and design (include locations of critical barriers, decontamination units, waste load-out/bag-out, HEPA air ventilation unit exhaust ports, and waste bin staging locations).
9. Contractor's work schedule including plan for sequencing work for each work area per building.
10. Shop Drawings showing the locations of all asbestos project work areas in the building.
11. Shop Drawings indicating the locations of any components of the fire alarm system which may have been deactivated and setting forth mitigation measures to be implemented for the duration of the project.
12. Shop Drawings indicating the locations of obstructed or removed exit signage and lighting and setting forth mitigation measures to be implemented for the duration of the project.
13. Shop Drawings indicating the locations of obstructed means of egress or required exit and setting forth mitigation measures to be implemented for the duration of the project.
14. Shop Drawings or riser diagrams indicating the locations of any disengaged or removed components of the fire protection system and setting forth mitigation measures to be implemented for the duration of the project.
15. The Asbestos Removal/ Disposal Work Plan shall be prepared by a State of Ohio Licensed Asbestos Design Professional.
16. The shut down and lockout/tag-out of all electrical power and mechanical equipment (i.e., boilers, tanks, pumps, steam lines) within the work areas prior to the start of the abatement work shall be coordinated by the Contractor, appropriate local authorities. The Contractor shall provide qualified electricians to verify and initiate the proper shutdown and lockout/tag-out of all electrical and mechanical systems within the work area. No abatement work will be permitted without the electrician's written certification that all electrical and mechanical systems within the work area are properly lockout/tag-out.
17. The Contractor shall provide all means and methods to move abatement workers, equipment and waste safely and efficiently in each location.
18. The Contractor must demonstrate in his work plan a priority to control and minimize ACM, ACM debris and dust, and ACM waste without introducing needless contamination to surfaces or surrounding areas that are otherwise in a clean or uncontaminated state.
19. The contractor shall provide sample copies of control logs for containment entry and exit, daily logs and other documentation paperwork.
20. The Contractor shall provide documentation on the intended landfill and the landfill's permitting to receive ACM waste.

B. SECTION INTENTIONALLY LEFT BLANK

C. The abatement Contractor shall provide sufficient working platform to safely remove the asbestos material in each work area. The design of the working platform that will be used inside the containment shall be prepared, signed and sealed by a licensed State of Ohio Professional Asbestos Designer. All structural calculations shall be approved by an Ohio Registered Structural Engineer. The Contractor shall review TRC's structural assessment and plan accordingly.

D. Asbestos shall be properly handled, packaged, and transported for proper disposal at an authorized recycling I landfill/ disposal facility. The Contractor shall notify the appropriate local authorities of the name, location and permits of any waste material scheduled for shipment prior to shipment off-site. The Contractor is responsible to prepare any waste shipment records for transporting of wastes and to obtain the appropriate local authority's signatures, as required, prior to transporting of waste from the job site.

E. All work shall be accomplished in strict adherence to the Specifications and the Asbestos Regulated Materials Survey (RMS) drawings, applicable Federal, State, and local regulations, or approved variances. Whenever there is a conflict or overlap of the above references, the more stringent provision shall apply.

F. The Contractor's asbestos work practices during asbestos abatement will be monitored by the appropriate local authority or designated representative. Monitoring the work by the appropriate local authority or designated representative does not relieve the Contractor from compliance with the appropriate construction safety work practices and ensuring that his work practices are in compliance with the applicable regulations.

G. The Contractor shall provide the best available technology, and state-of-the-art procedures and methods of execution, clean-up, disposal, and safety.

H. Prior to commencing abatement, the contractor shall provide the appropriate local authority copies of the required Ohio Environmental Protection Agency (EPA) notifications.

1.07 FIRE PROTECTION AND EMERGENCY EGRESS

A. The Contractor shall be responsible for the security and safeguarding of all work areas turned over by the appropriate local authority to the Contractor. The Contractor shall prepare a Fire Protection and Emergency Egress plan for submission to the appropriate local authority . The Contractor shall designate to his workers and other building occupants the means of egress in case of emergency.

1. The Contractor shall establish emergency, and fire exits from the work area and document same on a plan for submission to the appropriate local authority. The plan shall include available first aid kits, adequate quantities of protective clothing and respirators shall be provided for use by qualified emergency personnel in the clean room of each decontamination facility and installing of visible arrows pointing to the emergency exit(s) shall be painted on the walls (2 feet above the floor) with fluorescent paint. Emergency and fire exit(s) from the regulated abatement work area shall be maintained or alternate exit(s) shall be established and appropriately signed according to all applicable codes.

2. Accessible means of egress from the work area shall be installed, marked inside and out, and shall be maintained throughout the asbestos project, as per all pertinent federal, state, and local regulations. Means of egress is a continuous and unobstructed path of vertical and horizontal egress travel from any occupied portion of a building or structure to a public way.
3. At least one lighted stairway with adequate exit signage (in English and Spanish) including directionality, shall be provided, and maintained for the duration of the asbestos project.
4. The Contractor shall post near the entrance to all decontamination facilities, the telephone numbers of fire department, police precinct, and local electric company.
5. No visitors shall be permitted on the Property without prior approval from the appropriate local authority.

1.08 PHASING OF WORK

A. It is the Contractor's responsibility to ensure that all work including successful air clearance testing and analysis, as required, is completed prior to the established project completion date. Access to the Property shall be limited as detailed in previous sections of this specification.

1.09 DAMAGED PROPERTY

A. The Contractor shall accomplish, at his expense, the complete repair or replacement of any equipment, material, finish, or improvement which may have become inadvertently damaged by activities under this Contract. Damaged property shall be repaired to the appropriate local authority's satisfaction. The appropriate local authority shall furnish details, as required, to restore damaged property to its original condition at no additional cost to the appropriate local authority.

1.10 AUTHORITY TO STOP WORK

A. The appropriate local authority or its designated representative shall have the authority to stop the abatement work at any time a determination is made that conditions are not in accordance with the Project Specifications and applicable regulations. Work will not resume until conditions have been corrected to the satisfaction of the appropriate local authority or the designated representative'sEngineer. Standby time to resolve any problems shall be at the Contractor's expense.

1.11 SITE REQUIREMENTS, UTILITIES, AND PROGRESS MEETINGS

A. Site Requirements

1. Noise Control: Provide mufflers on all equipment to be used by the Contractor. Observe local laws regarding noise control. Excessive noise will not be permitted. All work must comply with Jobsite rules regarding noise. The Contractor shall conduct the abatement work so as to minimize noise to the satisfaction of the appropriate local authority or designated representative's Engineer.
2. Operations at the Jobsite shall be confined to the areas permitted under the Contract. Portions of the Property, beyond areas where work is on-going, are not to be disturbed.

Compliance with all Jobsite rules and regulations shall be maintained while engaged in the project.

3. Entrances serving the Property shall be kept clear and available to the appropriate local authority at all times. Do not use these areas for storage of materials and/or equipment.
4. Do not unreasonably encumber the Property with materials or equipment. Confine all the necessary materials to the areas indicated by the appropriate local authority or designated representative. The Contractor shall remove from the Property as quickly as it accumulates, items of salvage, rubbish, wrecking debris and asbestos waste.
5. Prior to commencement of work, the appropriate local authority or designated representative(s) shall provide the Contractor and his employees and sub-contractors safety training for the affected facility including emergency exits, procedures and information concerning access, shutdown and protection requirements of all affected equipment and systems in the work area.
6. The Contractor shall immediately report to the appropriate local authority or designated representative any contact with government, law enforcement, and media representatives.

B. Temporary Utilities

1. See Section 01500 "Temporary Facilities and Controls" for further details.
   a. Water Service: Potable water is not available to the Contractor on-site. The Contractor shall make potable water available as needed at the Property for consumption for all Contractors personnel and for the performance of all abatement operations. The Contractor shall be responsible for supplying and storing potable water.
   b. Non-potable water will be available to the Contractor at no additional cost to the Contractor. The Contractor shall be required to obtain the appropriate local authority’s approval of the sources tie-ins.
   c. Electrical Service: The Contractor shall provide all of the power connections required for the Work at their own cost and in accordance with the requirements specified in Section 01500 "Temporary Facilities and Controls." The Contractor shall provide electrical connections to the power source as necessary to accommodate abatement operations.
   d. The Contractor shall be responsible for connection to the main service line up to the Contractor's temporary power panel. The Contractor shall be responsible for the distribution of electrical power to all work areas. The Contractor shall provide a temporary power panel for each work area on each floor. The Contractor shall utilize an electrician for the connection of all temporary power and installation of temporary lighting systems. Electrician shall have asbestos awareness training at a minimum.
   e. All temporary power to regulated abatement work areas shall be brought in from outside the regulated abatement work area. This temporary power shall be protected by a ground fault circuit interrupter (GFCI) before the entry point to the regulated abatement work area. The negative air equipment shall be on GFCI protected circuits separate from the remainder of the regulated abatement work area temporary power circuits. The GFCI temporary power connections shall be located outside of the regulated abatement work area, in a secure, dry area, which is accessible to the Contractor.

1) All unprotected cables (except low-voltage [less than 24 volts] communication and control system cables), panel boxes of cables and joints in live conduit that run through the regulated abatement work area shall be covered with a minimum of two (2) independent layers of 6-mil fire retardant polyethylene on all floors and two (2) layers on all walls. Each layer shall be individually duct taped and sealed. All three layers of polyethylene sheeting shall be left in place until satisfactory clearance air sampling and/or visual verification by the engineer has been obtained.
2) Any energized circuits remaining in the regulated abatement work areas shall be posted with a minimum of 2-inch high lettering warning sign which reads: DANGER LIVE ELECTRICAL KEEP CLEAR or other approved OSHA language. The sign shall be placed on all live covered barriers at a maximum of 10-foot intervals. These signs shall be posted in sufficient numbers to warn all persons authorized to enter the regulated abatement work area of the existence of the energized circuits. Signs shall be posted in both English and Spanish.

f. The Contractor shall provide a back-up generator to maintain a continuous power supply in the work area. Provisions for the use of the back-up generator(s) shall be the responsibility of the Contractor.
g. Compliance with applicable standards of the National Electric Code (NEC); Underwriters Laboratories (UL); OSHA; local building codes; and regulations governing equipment, materials, layout and installation of temporary electric service shall be ensured by the Contractor.
h. Temporary lighting within the work area and decontamination enclosure systems shall be provided by the Contractor. The Contractor shall provide sufficient temporary lighting to ensure good working conditions. Provide the following or equivalent where natural lighting or existing building lighting does not meet the required light level;
   1) Minimum illumination level in the work area shall be 50 foot-candles.
   2) Minimum illumination level in pedestrian tunnels, stairways, ladder runs, and decontamination enclosure systems shall be 50 foot-candles.
   3) Provide lighting in any area being subjected to a visual inspection. Minimum illumination level shall be 50 foot-candles.

C. Temporary Electrical Sub-Panel

1. Provide temporary electrical sub-panel, sized and equipped to accommodate all electrical equipment and lighting required by the work in the buildings. Protect all circuits on temporary sub-panel with ground fault circuit interrupters (GFCI). Locate sub-panel outside the work area.

D. Electrical Service for Air Monitoring

1. The Contractor shall provide GFCI protected and grounded 120-volt outlets within 30 feet of any location the appropriate local authority or designated representative's Air Sampling Technician is required to collect an air sample inside or outside the work area. A minimum of ten (10) outlets distributed throughout interior containment areas and five (5) outlets outside the work area shall be provided within the work area.

E. Wastewater

1. All water used by the Contractor during asbestos abatement activities shall be collected, filtered to a minimum of 5 microns, contained, stored and transported off-site by the Contractor for proper treatment/ disposal. No wastewater from asbestos abatement activities shall be discharged on-site including discharge to the appropriate local authority's sanitary and/or stormwater collection/treatment systems. Contractor is encouraged to recycle the wastewater as part of asbestos suppression activities as feasible in order to reduce or eliminate the need for off-site disposal.
2. Toilets: The Contractor shall provide temporary toilet facilities for use during the abatement period in accordance with the requirements specified in Section 01500 Temporary Facilities.

F. Meetings

1. Pre-Demolition Meeting (see Section 01200): Prior to the start of Work, the Contractor shall meet with the appropriate local authority's or designated representative, and other entities concerned with the asbestos abatement work. The Contractor shall identify its on-site designated representative, supervisor(s), and Jobsite foreman. During the meeting, the following items shall be discussed and agreed upon:
   a. Assignment of on-site office.
   b. Access route to work area.
   c. Determination of equipment and other movable items to be removed from the work area by the Contractor, and temporary storage of these items.
   d. Availability and use of utilities.
   e. Location for placement of equipment and temporary storage required by the Project Specifications.
   f. Any additional factors which may affect the Work.
   g. Schedule of equipment shut-down.
   h. Detailed work plan of Work and general work plan and the proposed schedule of Work.
   i. Employee training records, respirator fit tests, and medical monitoring certifications.
   j. Employee eligibility to work in the United States.

G. General Waste

1. Contractor is responsible for the disposal of all miscellaneous non-ACM and construction debris generated during the project in accordance with other sections of this specification.

1.12 WORK SUPERVISION AND COORDINATION

A. Contractor's Supervisor

1. The Contractor shall have on-site a responsible and competent supervisor who possesses a valid Ohio EPA issued(State of Ohio) Asbestos Supervisor certification. As a minimum, the Contractor's Supervisor shall meet the qualifications as required by this specification, for a job supervisor. The Supervisor shall be on-site during all working hours. When the Supervisor must leave the Property during work, a

temporary Supervisor with equivalent training and experience shall be appointed and the appropriate local authority or designated representative's shall be informed.

B. Quality of Work

1. The Supervisor shall supervise, inspect and direct the Work competently and efficiently, devoting such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. The Supervisor shall be responsible to see that all Work complies accurately with the Contract Documents, and that all Work installed is of good quality and workmanship.

1.13 SUBMITTALS

A. The Contractor shall submit the following, as noted below, in accordance with the requirements specified in Section 01300 (Submittals):

B. Pre-Project Submittals

1. Copies of the Contractor's Licensing for preform abatement activities in the State of Ohio.
2. Copies of the completed Ohio EPA *Notification of Demolition and Renovation/ Abatement Form* and any Revisions to the Original.
3. Copies of the US EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) Notification.
4. Local Agency Notifications (if required).
5. Contractor Qualifications.
6. Employee Work Eligibility Verifications.
7. Training and Medical Releases for Abatement Supervisors and Abatement Workers.
8. Copies of the Contractor's Respirator Protection Program.
9. Employee Respirator Fit Test within the past year corresponding with the respirator to be used on the Project.
10. Verification of Fall Protection Training for Contractor's Employees working on Elevated Surfaces.
11. Historical Air Monitoring Data.
12. Asbestos Landfill Permitting and Verification of Acceptance.
13. Safety Data Sheets (SDS) for all chemicals to be used on the project.
14. Detailed Asbestos Removal/ Disposal Work Plan (Work Plan) as Described in Section 1.06 of this Specification.
15. Health and Safety Plan (HASP) as Described in Section 1.04 of this Specification.
16. Emergency Action Plan (EAP) as Described in Section 1.05 A of this Specification.
17. Fall Protection Plan (FPP) as Described in Section 1.05 B of this Specification.
18. Fire Protection and Emergency Egress Plan as Described in Section 1.07 of this Specification.
19. Should the Contractor propose any work methods or engineering control that does not meet current regulatory requirements or existing variances, the Contractor is responsible to apply for and obtain a site-specific variance. The proposed method can only be employed on the project after the site-specific variance is approved. The Contractor shall submit any submitted and / or approved variances to the appropriate local authority.

20. Work Schedule: Contractor's shall submit their proposed work schedule showing a logical flow of tasks and milestones. The Contractor shall notify the appropriate local authority or designated representative one week in advance prior to the implementation of any changes in the detailed work plan and schedules.
21. Specimen of the daily log proposed for use, which shall include at a minimum, the date(s) and time(s) when all personnel enter and leave the work area(s).

C. During Work Submittals

1. Schedule of Work Changes: Any changes in the Schedule of Work proposed by the Contractor shall be submitted for approval no later than seven calendar days prior to the commencement date of the proposed change. A revised / updated Schedule shall be submitted at the end of each week. Contractor shall weekly prepare a summary of work completed in the past seven days and a forecast for the week in progress and the following two weeks for each progress meeting held (Three week look ahead schedule).
2. Any requests for service shall be submitted at least 24-hours in advance of required air monitoring tests and inspections to be performed by the appropriate local authority or designated representative.
3. Results of all personal air monitoring performed by the Contractor shall be posted within 24-hours after collection for all workers to review. A copy of the results shall be given to the appropriate local authority or designated representative at the same time.
4. A certified, signed, and completed copy of each "*Waste Shipment Record*" (WSR) form used, and receipts from the landfill operator which acknowledge the Contractor's delivery(s) of material, shall be submitted to the appropriate local authority within 30 days following removal of ACM shipment from the Property and subsequently shall be turned over to the appropriate local authority. If the WSR is not received by the City Engineer within 35 days of the date that the initial transporter accepted waste, the Contractor shall contact operator of the disposal facility to obtain the WSR. If the appropriate local authority does not receive the WSR within 45 days, the Contractor shall execute the following steps outlined previously in this specification.
5. Waste Disposal Log shall be updated and submitted weekly.

D. Post Project Submittals

1. A "*Release of Liens*" in a form acceptable to the appropriate local authority. Such release of all liens shall certify that all subcontractors, labor suppliers, etc., have been paid their pro rate share of all payments to date, that the Contractor has no basis for further claim, and will not make further claim for payment in any account after the first payment is made to the workers.
2. Copies of a daily log showing the date(s) and time(s) of entrance to and exit from the work area(s) for all persons.
3. Compilation in chronological order of all personal air monitoring (OSHA) records pertaining to this project.
4. Compilation of all completed and signed Waste Shipment Record forms, bills of lading, or disposal receipts pertaining to this project.
5. Copies of notifications and checks to applicable agencies (see Subparagraph B: "*Pre-Project Submittal Information*" of this Section) that the asbestos abatement project has been completed.

6. Photo logs showing project progress from start to finish.

1.14 CLEANUP

A. Asbestos Related Clean-up: All clean-up work related to asbestos abatement work shall be in strict accordance with general technical requirements.

B. Upon completion of the Work, the Contractor shall remove all temporary construction, decontamination facilities, and unused materials placed on the Property by the Contractor.

C. Contractor shall leave the Property in a neat and clean condition.

D. Contractor shall perform all cleaning, washing, and restoration as required to restore the condition of the Property to its original condition.

1.15 CODES, PERMITS, AND STANDARDS

A. The Contractor shall be solely responsible for compliance with all applicable federal, state, and local laws, ordinances, codes, rules, and regulations that govern asbestos abatement work and disposal of asbestos waste material. The current issue of each applicable document shall govern. All work installed shall comply with all applicable codes and regulations as amended. The federal, state, and local requirements that govern asbestos abatement work, and hauling and disposal of asbestos waste materials include, but are not limited, to the following:

1. Federal Requirements
   a. OSHA requirements contained within the Code of Federal Regulations as follows:
      1) Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite, Title 29, Part 1910, Section 1001, and Part 1926, Section 1101;
      2) Respiratory Protection, Title 29, Part 1910, Section 134;
      3) Construction Industry, Title 29, Part 1910, Section 1926;
      4) Access to Employee Exposure and Medical Records, Title 29, Part 1910, Section 2;
      5) Hazard Communication, Title 29, Part 1910, Section 1200;
      6) Specifications for Accident Prevention Signs and Tags, Title 29, Part 1910, Section 145; and,
      7) United States Department of Transportation (USDOT) requirements contained within the Code of Federal Regulations as follows:
         a) Hazardous Substances, Title 29, Parts 171 and 172.
   b. United States Environmental Protection Agency (USEPA) requirements contained within the Code of Federal Regulations as follows:
      1) National Emission Standard for Hazardous Air Pollutants (NESHAPS), National Emission Standards for Asbestos, Title 40, Part 61, Subpart A and Revised Subparts Band M.
2 State Requirements
   a. Ohio EPA, Construction and Demolition Waste Guidance regarding the hauling and disposal of ACM or asbestos contaminated material;
   b. Ohio Department of Transportation Hazardous Waste Transporter License Certificate for transportation of friable ACM waste to the disposal facility.
3. Local Requirements

a. Abide by all local requirements that govern asbestos abatement work or hauling and disposal of asbestos waste materials.

4. Other Standards
   a. Before starting any work, the Contractor shall examine the Project Specification for compliance with codes and regulations applicable to the Work and shall immediately report any discrepancy to the appropriate local authority.
   b. The appropriate local authority may consider alternative proposals for substitutions of materials, equipment, and methods only when such proposal is accompanied by full and technical data and all other information required by the appropriate local authority to evaluate the proposed substitution. Such substitution shall comply with all applicable regulations and be approved by the appropriate local authority. The appropriate local authority reserves the right to deny proposed substitutions with no consequence to scheduled or contract value.
   c. Procedures described in this specification are to be utilized at all times. If specified procedures cannot be utilized, a request must be made in writing to the appropriate local authority providing details of the problem encountered and recommended alternatives. Alternative procedures shall provide equivalent or greater protection than procedures that they replace and meet current and applicable regulatory requirements. Any alternative procedure requested must be approved in writing by the appropriate local authority prior to implementation. Any alternative procedure that does not meet current and applicable regulation must be approved by variance obtained by the Contractor from the appropriate regulatory agency. Upon approval of an alternative procedure, the contractor shall provide the appropriate local authority with a statement and copies of relevant documents describing the alternate procedure and how it affects procedures previously approved in the work plan.
   d. Where conflict among requirements or with these Project Specifications exists, the more stringent requirements shall apply.
   e. Permits, State Licenses, and Notifications: The Contractor shall be responsible for obtaining necessary permits, variances, state licenses, and certifications of personnel in conjunction with asbestos removal, hauling, and disposal and shall provide timely notification of such actions as may be required by federal, state, regional, and local authorities. Fees and/or charges for these licenses, variances, permits, and notifications shall be paid by the Contractor. Contractor shall use all notification forms where applicable.

1.16 REQUIREMENTS AND QUALIFICATIONS

A. Minimum Experience: The Contractor shall have experience with abatement work, as evidenced through participation in at least three (3) asbestos abatement projects of complexity comparable to this project. The Contractor must provide personnel who have experience and training in working at elevations and in procedures and equipment related to fall protection. Evidence of experience shall be required to be included with the bid submittal package.

B. Experience and Training: The Contractor's job supervisors, foremen, and workers shall be adequately trained and knowledgeable in the field of asbestos abatement. All personnel engaged in asbestos abatement or related activities shall have current State of Ohio certifications. All phases of the Work shall be executed by skilled craftsmen experienced in each respective trade. Proof of such experience shall be submitted prior

to mobilization. Improperly trained, untrained, or inexperienced personnel shall not be allowed in the work area(s). Personnel shall meet minimum training and experience requirements outlined in this Section.

C. The Contractor's on-site job supervisor shall be qualified as a State of Ohio -certified Contractor/Supervisor. Course must be provided by a State of Ohio -approved training provider. The supervisor shall have experience with abatement work, as evidenced through participation in at least three asbestos abatement projects of complexity comparable to this project. The supervisor must have documented training and experience in working at elevations and must be a competent person relative to the hazards presented on this project including but not limited to procedures and equipment related to fall protection.

D. The job supervisors and foremen shall be thoroughly familiar with and experienced in asbestos removal and related work and shall meet the requirements of a competent person established in OSHA Standard 29 CFR 1926 with specific experience and training in working at elevations and fall protection equipment and techniques.

E. All asbestos abatement workers shall be knowledgeable, qualified, and trained in the removal, handling, and disposal of asbestos material and in subsequent cleaning of the affected environment. All asbestos abatement workers shall be certified as having attended and satisfactorily completed asbestos worker training in accordance with OSHA Standard 29 CFR 1926.1101(k)(3). The OSHA Course must be provided by a State of Ohio-approved training provider. All workers must possess a current State of Ohio issued Abatement Worker certification.

F. All workers who enter the tunnels or other confined space(s) must have documented training and experience in proper confined space entry procedures.

G. Prior to commencement of work, all personnel who are to enter the work area shall be instructed in and shall be knowledgeable of the appropriate procedures for personnel protection, with particular attention to fall protection, confined space entry, and asbestos abatement. On-site training in the use of equipment and facilities unique to this Property shall be performed by the Contractor. Emergency evacuation procedures from each work area shall also be included in worker training.

H. Supervision Requirements: The Contractor shall provide adequate job supervision for all phases of the asbestos abatement work. The number of supervisors shall be commensurate to work crew size to effectively manage the crew.

I. The Contractor shall have a State of Ohio licensed Asbestos Supervisor present on the Property whenever work described in this Section is in progress. If the job supervisor leaves the Property for any reason a qualified and certified supervisor, who meets the requirements of this Section and is familiar with the current status of the Work, shall be designated and the appropriate local authority shall be informed.

J. Worker Medical Examinations and Fit Test: The Contractor shall provide medical examinations and Fit Test documentation for all employees engaged in asbestos removal and disposal operations, in accordance with OSHA Standards 29 CFR 1910.134(b), 1926.1101, and applicable state regulations. The Contractor shall ensure that all

employee examination results are on file in his office and available for review and are maintained in accordance with OSHA Standard 29 CFR 1926.1101 (n) (3).

K. Certificate of Worker's Release: Each asbestos abatement worker, workers of other trades, or any supervisory personnel who enter the work area, or otherwise contact ACM, shall submit a Certificate of Worker's Release.

1.17 TESTING AND INSPECTION REQUIREMENTS AND RESPONSIBILITIES

A. Visual inspections and air monitoring shall be performed before, during, and after asbestos abatement to document airborne asbestos fiber concentrations as defined in this Section.

B. The appropriate local authority's Responsibilities

1. The appropriate local authority shall employ a Third-Party Monitoring/Sampling Firm for air monitoring and clearance testing as well as project monitoring.
2. Area air samples shall be collected and analyzed using NIOSH Manual of Analytical Methods (NMAM) 7400, Issue 3. Air samples shall be collected during each shift from the work area as required at the decontamination enclosure clean room, and in adjacent non-work areas.
3. Clearance testing shall be performed at the written request of the Contractor submitted on a copy of the "*Request for Services*" form. Air samples will be collected to demonstrate final clearance for work areas within the buildings. The fiber concentration of each sample must comply with the specified clearance level. The appropriate local authority's Third-Party Monitor shall provide for collection and analysis of one round of samples required to demonstrate clearance in each distinct work area.
4. The appropriate local authority's Third-Party Monitor shall perform visual inspections of the work area, as specified, upon written request of the Contactor. Submit request on a copy of the "*Request for Services*" form.

C. Contractor's Responsibilities

1. PCM air samples which fail to meet the clearance standard shall be paid for by the Contractor. Should a delay occur, due to failure(s) of clearance air testing, all associated expenses such as PCM analysis, and air testing, shall be the responsibility of the Contractor.
2. The Contractor, at his expense, shall provide OSHA monitoring and all other tests required by specified applicable regulations, codes, and standards and any other tests for his use. The use of a testing laboratory by the appropriate local authority or Third-Party Monitor does not release the Contractor from providing tests required for the protection and safety of his employees.
3. The Contractor shall employ an independent IH testing laboratory for the analysis of (OSHA) personal air monitoring samples. The laboratory used for air sample analysis shall be successfully participating in the American Industrial Hygiene Association (AIHA) "*Proficiency Analytical Testing (PAT) Program for Laboratory Quality Control for Asbestos*." The monitoring shall be performed by a competent person as defined by OSHA. A qualified air sampling professional shall conduct personal air monitoring in accordance with NMAM 7400, Issue 3, in accordance with 29 CFR 1926.58

Appendix A. The testing laboratory shall be National Voluntary Laboratory Accreditation Program (NVLAP) certified.

4. The Contractor shall collect from each work area, at his own expense, (OSHA) personal air monitoring samples. Sampling shall be repeated during each different work activity. Sample collection and analysis shall be performed using the OSHA Reference Method as outlined in 29 CFR 1926.1101, Appendix A.
5. Results of all personal air monitoring performed by the Contractor shall be posted within 24-hours after collection for all workers to review. A copy of the results shall be given to the appropriate local authority at the same time.
6. The Contractor shall be advised whenever questions arise concerning compliance with standards of quality and completeness of the Work and shall use his best efforts to resolve any such questions to the satisfaction of the appropriate local authority .
7. Where air monitoring tests and/or inspections is specified, the Contractor shall notify the appropriate local authority, in writing, in advance of the required test and/or inspection.
8. The Contractor is responsible for ensuring the Work is complete to the level that meets the criteria of the inspection. The Contractor shall perform an inspection of the Work to evaluate completeness prior to requesting an inspection by the appropriate local authority.
9. Time Requirements for Inspections and Testing: Where visual inspections or air testing is required to be performed by the appropriate local authority's Third-Party Monitor, the Contractor shall allow for the following response/analytical time for completion of the inspection/test.
    a. Where visual inspections are required, allow 24-hours beginning from the time the Contractor's written request is received by the appropriate local authority's Third-Party Monitor, for the performance of the inspection.
    b. Where PCM clearance air monitoring tests are required, allow 24-hours beginning from the time the Contractor's written request is received by the appropriate local authority's Third-Party Monitor, to the beginning of the air test.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Materials provided under this Section shall be standard products of manufacturers regularly engaged in the production of the items and shall conform to OSHA Standard 29 CFR 1926.1101; EPA Standard 40 CFR 61, Subpart M; Department of Transportation Standards 49 CFR 171, 172, and 173; applicable state regulations; and requirements specified herein. Materials listed under this Section "or equal" shall be provided for work under contract.

1. Plastic: Fire retardant plastic of 6-mil thickness shall be provided in rolls of sizes which will minimize the frequency of joints. Fire retardant plastic sheets shall be used for plasticizing the enclosed work area, for preparation of the decontamination enclosure system, and for waste packaging.
2. Reinforced Fire Retardant Plastic: Provide reinforced polyethylene sheets for the floor area of the decontamination enclosure system. Reinforced plastic sheets provided for this project shall be a 19-mil, 3-ply, high density flame resistant• reinforced-polyethylene sheet. Plastic color shall be opaque.

3. Duct Tape: Duct tape shall be capable of sealing joints of adjacent sheets of plastic and of attaching plastic sheeting to finished surfaces without damage to existing finish and shall be capable of adhering under both dry and wet conditions, including use of amended water. When used on windows the tape shall be ultra violet light stable and shall not leave residue when removed. Nashua 398 Gray Duct Tape or equivalent shall be used for all other surfaces.
4. Surfactant: Surfactant (Wetting Agent) shall consist of resin materials in a water base, which have been tested to ensure materials are non-toxic and non-hazardous. Surfactants shall be installed according to the manufacturer's written instructions.
5. Lockdown Encapsulants: Encapsulants used after asbestos removal to lockdown fugitive fibers shall carry a Class "A" fire resistance rating and shall have an ASTM E-162 flame spread index of 15 or less. A tint shall be given to the encapsulant by means of the addition of non-toxic, nonflammable colorings before application. The encapsulant shall be installed according to the manufacturer's written instructions.
6. Caulking Sealant: Caulking sealant shall be single component, non-sag elastomer with 1,600% elongation capacity. Sealant shall meet the requirements of Federal Specification TT-S-00230C, Class A Type II. Sealant shall be used to form an airtight seal around plywood barriers or temporary partitions, to seal along the seams of the decontamination enclosure system's plywood sheathing, and to seal around piping or other small penetrations of the work area. Sealant application shall be according to the manufacturer's written instructions.
7. Foam Sealant: Foam Sealant shall be expanding urethane Class 1 foam sealant with an Underwriters Laboratories, Inc. (U.L. 723) flame spread index of 25 or less, smoke developed index of 0, and a minimum operating temperature range between -30 degrees F and 250 degrees F.
8. Masonite: Masonite fiberboard shall be used for protection of new flooring materials and to prevent tears in the plastic on steel grated walkways. Thickness shall be at least ¼ inch thick.
9. Plywood: Plywood used for temporary partitions, decontamination enclosure systems, and tunnels shall be an exterior grade and a minimum 3/8-inch thick. All plywood, lumber or any other supporting studs shall be fire-retardant. Plywood that comes in contact with ACM shall be packaged, transported and disposed as asbestos waste.
10. Spray Adhesive: Spray Aerosol Adhesive shall be specially formulated to stick to sheet polyethylene (3M 76, 3M 77, or equivalent). Spray aerosol cans shall be disposed of per all local regulations.
11. Other Materials: All other materials, such as fire retardant lumber and plywood, tools, scrapers, brushes, cleaning materials, adhesive, nails, hardware, etc., which are required to perform the Work described in this Section shall be provided. Materials and equipment shall be new or used, uncontaminated by asbestos, in serviceable condition, and appropriate for the intended purpose.
12. Disposal Bags: Plastic Disposal Bags shall be a minimum of 6-mil in polyethylene (or as required by the applicable regulations), opaque, pre-printed with labels as required by OSHA 29 CFR 1926.1101. Additionally, the Contractor shall obtain a pre-printed, waterproof, self-adhesive labels stating: "128/130 N. Sandusky Ave" and the name of the removal location.
13. Shipping Containers: Impermeable Containers shall be suitable to receive and retain any asbestos containing or asbestos contaminated materials until they are disposed of at an approved landfill. The containers shall be labeled in accordance with this Section. Containers shall be both airtight and watertight and conform to DOT Standard

49 CFR 178.224. Each container shall be constructed of fiber, hard plastic, or metal, with locking, airtight lids.

14. Markings and Labels: Disposal bags and shipping containers shall bear danger labels, transportation packaging labels, and generator identification information. Labels shall be permanently affixed to all bags and shipping containers containing ACM, in accordance with OSHA Standard 29 CFR 1926.1101(k)(2), DOT Standard 49 CFR Part 171 and 172, and EPA Standard 40 CFR Part 61.150(a)(l)(v).
15. Protective Clothing: Workers shall be provided with sufficient sets of properly fitting, full-body, disposable coveralls, head covers, gloves, and 18-inch high boot type foot covers. Disposable coveralls, head and foot covers shall be constructed of materials equal to DuPont "TYVEK-Type 14" or Kimberly-Clark "Kleenguard" or equivalent as a minimum requirement.
16. Danger label format and color shall conform to OSHA Standard 29 CFR 1926.200. Danger labels shall display the following information:
    a. Danger
    b. Contains Asbestos Fibers
    c. Avoid Creating Dust
    d. Cancer and Lung
    e. Disease Hazard
17. DOT Marking and Labels: Markings and labels shall be permanently affixed to all bags and containers containing ACM, in accordance with DOT 49 CFR 172.304 and 172.407.
18. Markings shall display the following text:
    a. RQ, ASBESTOS, NA 2212
19. Labels shall be diamond shape and shall be located near the Marking text. Labels will consist of a diamond a minimum of 100 millimeters (mm) on each side with each side having a solid line inner boarder 5.0 to 6.3 mm from the edge. The label shall be white with seven black vertical stripes on the top half. Black stripes and white spaces shall be equally spaced. The lower half of the label shall be white with the class number "9" underlined and centered at the bottom. Refer to DOT 40 172.446 for label format.
20. Generator identification information shall be affixed to each DOT label format and color shall conform to DOT Standard 49 CFR 172.304. Generator identification information labels shall display the following information:
    a. Generator's Name.
    b. Generator's 24-Hour Phone.
    c. Generator's Facility Address.
21. Reuse of Containers: If impermeable containers used to transport bagged asbestos waste to the landfill are to be reused, the empty containers shall display the following label:
    a. Residue.
    b. Last Contained Asbestos RQ.
22. Warning Signs: Warning Signs shall be posted at the perimeter of the work area prior to abatement operations in accordance with OSHA Standard 29 CFR 1926.1101. In addition to English language, warning sign of predominant language spoken by the majority of the crew shall be posted. Danger sign format and color shall conform to OSHA Standard 29 CFR 1926.200. The signs shall display the information indicated below:
    a. Danger.
    b. Asbestos.
    c. Cancer and Lung Disease Hazard.

d. Authorized Personnel Only.
e. Respirators and Protective Clothing is Required in the Area.

23. Disposal drums shall be metal or fiberboard with locking ring tops.

2.02 EQUIPMENT

A. Equipment provided under this Section shall conform to applicable federal and state regulations, local codes, and the requirements specified herein.

1. Communication Equipment: Devices suitable for inter-room communications, such as "walkie-talkies" or "radio band" communicators shall be provided as necessary to maintain effective communications.
2. Spraying Equipment: Equipment used to apply amended water or removal encapsulant shall be of a low-pressure type to prevent disturbance of the asbestos prior to physical controlled removal. Airless spray equipment shall be provided for the application of asbestos encapsulant.
3. Vehicles: Trucks and/or dumpsters and all other transport methods used for the transportation of asbestos waste shall be enclosed and suitable for loading, temporary storage, transit, and unloading of asbestos contaminated waste without exposure to persons or property. The Contractor shall provide an ODOT waste transporter permit for all vehicles used for the transportation of asbestos waste.
4. Fall Protection Equipment: Certified and approved equipment to be used by trained and experienced personnel when working at elevation to protect against falling from an elevated work area.
5. Fire Extinguisher: Type "ABC" dry chemical extinguisher or a combination of several extinguisher of NFPA recommended types for the fire hazard exposures in each extinguisher location shall be provided. Minimum size of extinguisher shall be4A:80B:C. Supply a minimum of one extinguisher for every 1,000 square feet of floor area, with a maximum travel distance to an extinguisher of 75-feet. Supply at least one extinguisher in each decontamination enclosure equipment room, and clean room.
6. Carts: Provide water tight wheeled carts with tight fitting lids suitable for movement of non-contaminated waste or bagged asbestos waste from the decontamination enclosure system to the waste storage container or transport vehicle.
7. Power Tools: Provide power tools necessary to complete the Work. Power tools used directly for asbestos removal shall be equipped with a HEPA filtered dust collection system.

2.03 WORKER PROTECTIVE CLOTHING AND EQUIPMENT

A. Protective clothing and equipment shall conform to OSHA Standard 29 CFR 1926.1101.

1. Protective Clothing: Workers shall be provided with sufficient sets of properly fitting, full body, disposable coveralls, head covers, gloves, and 18-inch high boot type foot covers. Disposable coveralls, head covers, and 18-inch high boot type foot covers shall be constructed of material equal to DuPont "TYVEK-Type 14" or Kimberly-Clark "Kleenguard", or equivalent as a minimum requirement.
2. The Contractor shall provide authorized visitors, the appropriate local authority or designated representative, and Third-Party Monitor suitable and properly fitting

protective disposable clothing, headgear, hard hats, eye protection, and footwear (up to four sets per 8-hour shift) whenever they are required to enter the work area.

3. Equipment: Eye protection, hearing protection, hand protection, foot protection, and hard hats required for job conditions or by applicable safety regulations shall be provided.
4. Fall Protection: The Contractor shall prepare a Fall Protection Plan for the Work. The plan shall define the specific work practices, equipment and personnel to be employed for the safe work at elevations. All Contractor personnel shall be required to have been trained and be familiar with procedures for working at elevation and fall protection devices outlined in the Contractor's Fall Protection Plan. Verification of training shall be submitted prior to the Contractor's employee working in an area where fall protection is required. The Contractor shall implement prudent safety measures to protect personnel, materials, and equipment from falling within the work area.
5. Respiratory Protection: The Contractor shall be solely responsible for providing adequate respiratory protection at all times for all individuals in the work area. Types of respirators used shall be approved by NIOSH for asbestos in accordance with 42 CFR 84 and OSHA Standard 29 CFR 1910.134. The Contractor shall provide a level of respiratory protection which supplies an airborne fiber level inside the respirator below 0.01 fibers per cubic centimeter (flee), as the minimum level of protection allowed. Determine the proper level of protection by dividing the actual airborne fiber count in the work area by the "protection factors" given below for each respirator type:

RESPIRATOR TYPE	PROTECTION FACTOR
Air purifying, negative pressure respirator with high efficiency HEPA filter and half face piece	10
Air purifying, negative pressure respirator with high efficiency HEPA filter and full face piece	50 (quantitative)
Powered air purifying (PAPR), with high efficiency HEPA filter and full face piece	1,000 (quantitative)
Positive pressure respirator, high efficiency HEPA filter, and full face piece	1,000 (quantitative)
Type C supplied air, Positive-pressure respirator, pressure demand, full face piece and HEPA escape	1,000
Type C, supplied air, pressure demand, full face piece, equipped with an auxiliary SCBA	1,000

6. The Contractor shall provide workers with individually issued and marked respiratory equipment. Respiratory equipment shall be suitable for the asbestos exposure level(s) in the work area(s), as specified in NIOSH standard 42 CFR 84 and OSHA Standard 29 CFR 1910.134 and as more stringently specified otherwise, herein.
7. Where respirators with disposable filter parts are employed, the Contractor shall provide sufficient filter parts for replacement as necessary or as required by the applicable regulation.
8. Breathing air supply systems shall conform to the USEPA NIOSH Document EPA-560-OPTS-86-001 (September 1986) entitled "*A Guide to Respiratory Protection for the Asbestos Abatement Industry*." The Contractor shall have a minimum of two spare air hoses with connectors to permit the appropriate local authority's Third-Party

Monitor to connect assigned Type C respirator to the air system at any time without having to wait for personnel to exit the work area in order to obtain a spare hose.

PART 3 - EXECUTION

3.01 DECONTAMINATION ENCLOSURE SYSTEMS

A. In the event the Contractor has both men and women working on the project site special privacy provisions must be made to protect the privacy of both sexes.

1. Remote Decontamination Facility: The Contractor shall provide a remote personnel decontamination enclosure system in accordance with OSHA Standard 29 CFR 1926.1101 and as specified herein. If the remote personal decontamination system must be located at the exterior of the building/structure due to space or code restrictions, it shall be constructed within 50 feet of the building/structure exit used for access by the Contractor personnel. The decontamination unit shall be cordoned off at a distance of 25 feet to separate it from public areas.
2. The decontamination enclosure system chambers shall be constructed to meet the criteria of the Project Specification. The decontamination enclosure shall be installed watertight to prevent water leaks. The interior walls and ceiling shall be lined with two layers of 6-mil fire-retardant plastic sheeting, with a minimum overlap of 16 inches at seams and sealed (airtight) by tape and adhesive. The interior floor shall be sheathed with 2 layers of reinforced fire-retardant plastic sheeting with a minimum overlap on the wall of 16 inches. This system must be kept clean, sanitary and climate controlled at all times in conformance with all federal, state and local government requirements. This system shall remain on• site, operational and be used until completion of the Work.
3. Designated Pathway: The walkway from the regulated abatement work area to the personal decontamination system or next regulated abatement work area shall be cordoned off to deter entry by unauthorized personnel and signage installed, to delineate it from public areas.
4. Full Decontamination Facility: The Contractor shall provide a full and contiguous decontamination enclosure system in accordance with OSHA Standard 29 CFR 1926.1101 and as specified herein.
5. Structure: Use modular systems or build using wood or metal frame studs, joists, and rafters placed at a maximum of 24 inches on-center. Interior wall and ceiling shall be sheathed with plywood (at least 3/8-inch thickness) caulked or taped airtight at joints and seams. Interior and exterior shall be lined with two layers of 6-mil plastic sheeting, with a minimum overlap of 16 inches at seams and sealed (airtight) by tape and adhesive. The interior floor shall be covered with two layers of reinforced fire-retardant plastic sheeting with a minimum overlap on the walls of 16 inches. The decontamination unit shall be constructed with lockable door. This structure shall be supplied with a GFCI protected temporary lighting system. This structure must be kept clean, sanitary, and climate controlled at all times in conformance with all federal, state and local government requirements. A copy of each key shall be provided to the appropriate local authority or designated representative and the abatement supervisor.
6. Curtained Doorways: Three overlapping sheets of 6-mil polyethylene shall be placed over a framed doorway and secured along the top of the doorway. Secure the vertical edge of the outer sheet along one vertical side of the doorway. The sheet shall be weighted so that they close quickly after being released.

7. Air Locks: Airlock construction shall consist of two curtained doorways with three alternating 6-mil fire retardant polyethylene curtains per doorway, separated by a distance of at least 3 feet, such that one passes through one doorway into the airlock, allowing the doorway sheeting to overlap and close off the opening before proceeding through the next doorway. Minimum airlock size shall be 3 feet wide, by 3 feet long, by 6 feet in height.
8. Decontamination Enclosure System shall be placed adjacent to the work area and shall consist of three totally enclosed chambers, separated from work area and each other by airlocks, as follows:
    a. Equipment Room: The equipment room shall have a curtain doorway to separate it from the work area, and share a common curtained doorway with the shower room. The equipment room shall be large enough to accommodate at least one worker (allowing them enough room to remove their protective clothing and footwear), and a 6-mil disposal bag for collection of discarded clothing and equipment. Contaminated footwear and work clothes shall be stored in this area.
    b. Shower Room: The shower room shall have two curtain doorways: one which separates it from the equipment room and one which separates it from the clean room. The shower room shall contain at least one shower, with hot and cold water, per six workers. Multiple showers shall be simultaneously accessible (installed in parallel) to certified personnel. Careful attention shall be given to the shower to ensure against leaking of any kind. The Contractor shall supply shampoo and liquid soap in the shower room at all times. Shower water shall be drained, collected and filtered through a system with at least 5.0-micron particle size collection capability. Submersible pumps shall be installed, maintained, and utilized in accordance with pertinent OSHA regulations and manufacturer's recommendations. A multi-stage filtering system containing a series of several filters with progressively smaller pore sizes shall be used to avoid rapid clogging of the filtering system by larger particles. All water used by the Contractor during asbestos abatement activities shall be collected, filtered to a minimum of 5 microns, contained, stored and transported off-site by the Contractor for proper treatment/ disposal. Contaminated Liquid Collection, Handling and Disposal) and Sub-Section 1.11 E “Wastewater” of this Section. No wastewater from asbestos abatement activities shall be discharged on-site including discharge to the appropriate local authority's sanitary and/or stormwater collection/treatment systems. Contractor is encouraged to recycle the wastewater as part of asbestos suppression activities as feasible in order to reduce or eliminate the need for off-site disposal. Contaminated filters shall be disposed of as asbestos contaminated waste.
    c. Clean Room: The clean room shall be sized to accommodate a full work shift of Contractor personnel. The clean room shall be a minimum of 6 feet in height. Benches, lockers and hooks shall be provided for street clothes. Shelves for storing respirators shall be provided. Clean clothing, replacement filters for respirators, towels and other necessary items shall be provided. The clean room shall not be used for storage of tools, equipment or materials. It shall not be used for office space. A lockable door shall be provided to permit access to the clean room from outside the regulated abatement work area or enclosure and shall be used to secure the regulated abatement work area and decontamination enclosure during non-work hours.
9. Waste/Equipment Decontamination Enclosure System: This system is located adjacent to the work area and personnel decontamination system. The equipment

decontamination enclosure system, consisting of two totally enclosed spaces, shall be constructed as follows:

a. Equipment Washroom: An equipment washroom shall have two air locks: one adjacent to the work area and one common air lock which separate it from the holding area. The washroom shall have facilities for washing material containers and equipment. Gross removal of dust and debris from contaminated material containers and equipment shall be accomplished in the work area, prior to moving to the washroom. Adequate drainage and bag/container wash water shall be provided within the room/chamber, as well as a sufficient quantity of clean waste bags/containers.
b. Holding Area: A holding area shall share a common air lock with the equipment washroom and shall have a curtained doorway to outside areas. A hinged, lockable door shall be placed at the holding area entrance to prevent unauthorized access into the work area.

10. Decontamination Enclosure System Utilities: Lighting, heat, and electricity shall be provided as necessary by the Contractor, and as specified.
11. Some of these requirements may be modified by use of the existing variance including relief for exclusion areas and decontamination enclosure size but only under certain circumstances.

3.02 PERSONNEL PROTECTION AND DECONTAMINATION PROCEDURES

A. The Contractor shall take all safety measures and precautions necessary to protect workers and sub-contractors in accordance with all applicable OSHA Standard 29 CFR 1926, EPA Standard 40 CFR, Part 61, Subpart M, and applicable state regulations. The Contractor shall be solely responsible for enforcing personnel protection requirements. The Table below summarizes the minimum levels of personnel protection required during work of this Section.

B. Workers shall be fully protected with respirators and protective clothing from the time of first disturbance of asbestos containing or asbestos contaminated materials prior to commencing actual asbestos abatement until final cleanup is completed.

C. Workers or authorized visitors shall not eat, smoke, drink, or chew gum or other substances while in the work area(s) or decontamination area(s).

D. Contaminated worker footwear, eye protection, and hard hats shall be stored in the equipment room when not in use in the work area and, upon completion of asbestos abatement, disposed of as asbestos contaminated waste or decontaminated for reuse.

E. Except for government inspectors with jurisdiction, no visitors except those authorized by the appropriate local authority or designated representative shall be allowed in work area.

F. Asbestos workers shall not wear any jewelry, e.g. watch, necklace, etc. while in the work area or decontamination area.

G. Minimum Personal Protection Requirements listed below:

Activity	Respiratory Protection	Disposable Clothing	Use Of Shower Required After Work	Decon Unit
Plasticizing prior to abatement (with no potential asbestos exposure)	HFR	YES	YES	YES
Plasticizing prior to abatement (with potential asbestos exposure)	PAPR	YES	YES	YES
Gross removal (uncontained work area)	PAPR	YES	YES	YES
Gross removal (contained work area)	PAPR	YES	YES	YES
Preliminary cleanup (after gross removal)	PAPR	YES	YES	YES
Plastic removal after initial clearance	PAPR	YES	YES	YES
Lockdown	HFR	YES	YES	YES
Cleaning and plastic removal after lockdown before final clearance	HFR	YES	YES	YES
Activities after final Clearance	HFR	NO	NO	NO
Loading ACM into disposal containers/ dumpsters outside	HFR	YES	YES	YES

H. Notes

1. These are minimum requirements only. The Contractor is fully responsible for the personal protection of all workers at the Property. Where conflict or interpretational differences arise, the text of the Project Specification applies.
   a. PAPR: Full face Powered Air Purifying Respirator.
   b. HFR: Half Face Respirator with High Efficiency Particulate Air (HEPA) filters.

I. Worker Respiratory Protection

1. With approval from the appropriate local authority, historical airborne fiber level data may serve as the basis for selection of the level of respiratory protection to be used for the time interval prior to the Contractor establishing the eight-hour time weighted average (TWA) for an abatement task, providing such data represents similar work tasks and methods for the same asbestos containing material. Historical data provided by the Contractor shall be based on personal air monitoring of the "breathing zone" of his employees for other asbestos abatement projects, and the data were obtained during work operations conducted under work place conditions closely resembling the processes, type of material, control methods, work practices, and environmental conditions used and prevailing in the Contractor's current operations. Documentation of aforementioned results shall be presented to the appropriate local authority for review of applicability. (See "Submittal, Pre-Project Information"). This will not relieve the Contractor of providing personal air monitoring to determine the TWA for the Work under contract. The TWA shall be determined in accordance with 29 CFR 1926.1101. After the TWA is established, the Contractor may provide respirators as presented in the Project Specification.

J. Safety Data Sheets

1. Review safety data sheets (SDS) for products to be used during the Work. The Contractor shall follow recommendations as given by the product manufacturer for personnel protection required to be worn during product application.

K. Personal Air Monitoring Requirements

1. The Contractor's CIH or Competent Person shall monitor and be responsible for development and implementation of a personal air monitoring program in accordance with OSHA Standard 29 CFR 1926.1101, good industrial hygiene practices, and the requirements herein for gross removal. Personal air monitoring shall be performed by a qualified air sampling professional supervised by the Contractor's CIH. Documentation of air sampling shall include as a minimum: calculations of minimum sample volume to achieve necessary detection limits; sampling time; sampling location (or subject); evidence of periodic inspection of sampling equipment; documentation of daily pre- and post-calibration of sampling equipment; detailed description of worker protective devices; description of any typical environmental conditions; and a description of work practices/procedures/controls in operation during the sampling period. Documentation of sample analysis shall include, as a minimum:
   a. Sample identification;
   b. total sample duration;
   c. sample flow rate;
   d. the "limit of reliable quantitation";
   e. total air volume;
   f. total fibers counted (with work sheets);
   g. Total fields counted; and
   h. Blank filter analysis; and reticule field area.
   i. Airborne fiber concentrations in fibers per cubic centimeter (f/cc) shall be calculated and reported at the 95 percent confidence level.
2. Full-shift personal exposure air sampling of workers shall be performed in accordance with the OSHA Reference Method (29 CFR 1926.1101, Appendix A) to establish the 8-hour (TLV-TWA) exposure. Such sampling shall be conducted for each employee (or representative group of employees, at least 25% of the crew plus two field blanks) expected to represent the highest exposure in each work area for each type of activity on the first shift that Jobsite preparation, removal, or cleanup activities occur.
3. 30-minute personal exposure air sampling shall be conducted daily, during activities anticipated to produce the highest airborne concentrations to determine the short-term (worst case) exposure of employees.

L. Excursion Limit

1. Personal exposure sampling shall be repeated everyday as per protocol requirements where removal and cleanup operations are conducted for the duration of the project, or at any time that conditions indicate to the Contractor or the Contractor's CIH that the most recent personal sampling results are no longer indicative of employee exposure. PCM personal samples shall be collected and analyzed according to the OSHA Reference Method in OSHA Standard 29 CFR 1926.1101, Appendix B.

M. Personnel Entrance and Decontamination Procedures for Removal Operations utilizing remote decontamination unit.

1. The following procedures shall be used for entry/exit from work areas.
   a. All individuals who enter the Work Area shall sign the entry log, located in the clean room, upon each entry and exit. The log shall be permanently bound and shall identify fully the facility, agents, Contractor(s), the project, each Work Area, and worker respiratory protection employed. The job Supervisor shall be responsible for the maintenance of the log during the abatement activity.
   b. Each worker shall remove street clothes in the clean room; wear two disposable suits, including gloves, hoods and non-skid footwear; and put on a clean respirator (with new filters) before entering the work area.
   c. If at any time a worker must travel through an uncontaminated area to access the personal decontamination area, the worker shall HEPA-vacuum and/or wet wipe his/her outer protective clothing while in the regulated abatement work area, then proceed into the airlock, which serves as a changing area, where he/she shall remove the outer clothing and don a clean set of protective clothing. The worker may then proceed to the personal decontamination system enclosure only along a designated pathway. The inner disposable suit and respirator shall be wet wiped and HEPA vacuumed thoroughly before removing and prior to aggressive shower. Travel in any other area shall not be allowed.
   d. Following showering and drying off, each worker or authorized visitor shall proceed directly to the clean room, dress in street clothes, and exit the decontamination enclosure system immediately.

N. Personnel Entrance and Decontamination Procedures for Gross Removal Operations Utilizing Full Decontamination Facility.

1. The following entry/exit procedures shall be used for gross removal using full containment.
   a. All workers and authorized visitors shall enter the work area through the worker decontamination enclosure system.
   b. All individuals who enter the work area shall sign the entry log, located in the clean room, upon each entry and exit. The log shall be permanently bound and shall identify fully the facility, agents, Contractor (s), the project, each work area and worker respiratory protection employed. The Jobsite Supervisor shall be responsible for the maintenance of the log during the abatement activity.
   c. Each worker or authorized visitor shall, upon entering the Jobsite, remove street clothes in the clean room and put on a clean respirator (with new filters, if appropriate) and clean protective clothing before entering the work area through the shower room and equipment room.
   d. Each worker or authorized visitor shall, each time he/she leaves the work area: remove gross contamination from clothing before leaving the work area; proceed to the equipment room and remove all clothing except the respirator; still wearing the respirator, proceed to the shower room; clean the outside of the respirator with soap and water while showering; remove filters, wet them, and dispose of them in the container provided for that purpose; wash and rinse the inside of the respirator; and thoroughly shampoo and wash himself/herself.
   e. Following showering and drying off, each worker or authorized visitor shall proceed directly to the clean room, dress in street clothes, and exit the decontamination

enclosure system immediately. Disposable clothing of the type worn inside the work area is not permitted outside the work area.

f. Each regulated work area shall have a full-time assigned attendant to control access to the work area and to support personnel working inside the regulated work area.

3.03 PREPARATION OF WORK AREA

A. General Preparations of Work Area

1. Request that the appropriate local authority's Third-Party Monitor perform area air monitoring and establish a background fiber count prior to the preparatory operations for each removal area, as applicable.
2. Erect barricades; post notices and warning signs.
3. Provide and install decontamination enclosure systems in accordance with Article 3.01, "*Decontamination Enclosure Systems*" of this Section.
4. Seal floor drains, sumps, shower tubs, and other collection devices with 6-mil plastic and plywood, as necessary, and provide a system to collect all water used by the Contractor. All water used by the Contractor during asbestos abatement activities shall be collected, filtered to a minimum of 5 microns, contained, stored and transported off-site by the Contractor for proper treatment/ disposal. Contaminated Liquid Collection, Handling and Disposal) and Sub-Section 1.11 E "Wastewater" of this Section. No wastewater from asbestos abatement activities shall be discharged on-site including discharge to the appropriate local authority's sanitary and/or stormwater collection/treatment systems. Contractor is encouraged to recycle the wastewater as part of asbestos suppression activities as feasible in order to reduce or eliminate the need for off-site disposal. Ensure that the Contractor's communication equipment is in place, in operating condition, and in operation during work described in this Section.
5. Ensure that the Contractor's approved fall protection equipment is in place, in operating condition, and in operation during work described in this Section.
6. Maintain emergency and fire exits from the work areas or establish alternative exits satisfactory to the local fire officials. Emergency exits and routes shall be established and clearly marked with florescent paint or other effective designations to permit easy location from anywhere within the work area. Emergency exits shall be secured to prevent access from uncontaminated areas and yet permit emergency exiting. Exits shall be checked daily against exterior blockage or impediments to exiting.
7. Temporary lighting within the work area and decontamination system shall be provided as required to achieve minimum illumination levels.
8. Hand power tools used to drill, cut into, or otherwise disturb ACM shall be equipped with HEPA filtered local exhaust ventilation and must effectively capture all debris and dust generated by the power tool.
9. The Contractor shall post in the clean room area of the workers decontamination enclosure a list containing the names, addresses, and emergency telephone numbers of the Contractor, the Contractor's on-site representative, and any other personnel who may be required to assist during abatement activities or contacted in an emergency.
10. Access to the work area shall be restricted only to authorized, certified, and protected personnel. They may include Contractor's employees, employees of subcontractors, appropriate local authority employees and representatives, Federal, State and Local inspectors and any other designated individuals, with prior approval from the appropriate local authority.
11. Entry into the work area by unauthorized individuals shall be reported immediately to the appropriate local authority or designated representative.
12. The Contractor is responsible for work area security for the duration of abatement operations.

B. General Preparations for Pre-Demolition Asbestos Abatement Project

1. The following abatement preparations and procedures shall apply for all buildings/structures planned for demolition.
   a. Objects can be removed from the regulated abatement work area without disturbing friable ACM prior to beginning of any abatement activities. The removal of nonporous, movable or non-movable salvage shall occur after critical barriers, isolation barriers and decontamination enclosures are in place and only after salvage has been wet-cleaned and HEPA-vacuumed.
   b. Shut down, isolate, and lock-out/tag-out heating and ventilating (HVAC) systems which serve or which pass through the work area. All uninsulated ventilation units or entire un-insulated duct system within the work area and seams in HVAC components shall be sealed with tape and two layers of plastic sheeting. Filters in HVAC systems shall be removed and treated as asbestos contaminated waste. The HVAC duct work is scheduled for removal. The Contractor may remove ducting prior to construction of containments provided no asbestos-containing debris or ACM is located in expansion joints, vibration dampers or other locations on the ducting.
   c. Confirm shut down, disconnect, and lock-out/tag-out of all electric power to the work area so that there is no possibility of its reactivation until after clearance testing of the work area. The Contractor shall provide qualified electricians to verify and initiate the proper shutdown and lockout/tag-out of all electrical and mechanical systems within the work area. No abatement work will be permitted without the electrician's written certification that all electrical and mechanical systems within the work area are properly lockout/tag-out. The Contractor shall verify all lock-out/tag-out is complete.
   d. Separate by means of airtight barriers (isolation barriers) parts of the building that are not included in the work area(s) from parts of the building that will undergo asbestos abatement.
   e. Seal with isolation barriers: open doorways, cased openings, and corridors which will not be used for passage during work. Any opening equal to or more than 32 square feet shall be sealed with solid isolation barriers.
   f. Isolation barriers shall extend from the floor to the ceiling and form an airtight seal. They shall be built using fire rated wood/lumber or metal framing at 16-inch on center faced with fire retardant plywood sheathing and shall be braced as necessary. Both sides of the isolation barrier shall be covered with a double layer of 6-mil plastic sheeting, with joints staggered and sealed with tape. Edges of the temporary partition at the floor, walls, and ceiling shall be taped and caulked airtight. Isolation barriers larger than 32 square feet shall be sheathed on the work area side with 3/8-inch fire retardant plywood sheathing.
   g. Completely seal airtight and isolate the work area. All openings, including, but not limited to, doorways, windows, tunnels, ducts, grilles, cracks, diffusers, openings through which pipe conduit passes, and any other penetrations of the work area, shall be covered with plastic sheeting taped or caulked.
   h. After sealing and plasticizing the area, install and initiate operation of air filtration devices (AFD) to provide a minimum of -0.02 inches of water column pressure differential (relative to the pressure outside the regulated abatement work area) and four (4) changes per hour within the work area relative to surrounding non-work areas. Do not shut down AFDs until the work area is released to the City's Third-Party Monitor following final clearance procedures. Provide an electronic

manometer equipped with continuous paper printout to continuously monitor the negative pressure inside the containment.

i. A continuous recording digital manometer, with audible alarms, shall be used to document the pressure differential for all asbestos project regulated abatement work areas. A minimum of -0.02 inches of water column pressure differential, relative to pressure outside the regulated abatement work area, shall be maintained within the regulated abatement work area, as evidenced by manometric measurements. Once installed, on a daily basis at least twice per work shift, the Contractor's supervisor shall document the manometer reading within the daily project log. A copy of the manometer print out shall be submitted, on a daily basis, to the City's Third-Party Monitor. The manometer shall be installed and made operational once the negative air has been established in the regulated abatement work area. A copy of the current calibration certification shall be posted at the Jobsite.

j. Work Area Pre-cleaning Procedures: After establishing the decontamination enclosure systems, prepare and pre-clean the work area as specified below and as indicated by the drawing notes:
   1) Movable and loose items contaminated with asbestos shall be pre-cleaned and wrapped or placed in labeled ACM bags. Sealed ACM bags shall be removed from the work areas and properly discarded as asbestos-contaminated waste. All waste shall be removed from the regulated work area and stored in waste bins no later than the end of each work shift.
   2) Fixed objects within the work area shall be pre-cleaned using HEPA vacuum equipment and/or wet cleaning methods as appropriate. Joints of covers or casings shall be sealed with tape and fixed objects enclosed with a minimum of two layers of 6-mil plastic sheeting sealed airtight with tape. Disassembly of these fixed objects is not required unless otherwise noted. Fixed objects shall include, but not be limited to, light fixtures, junction boxes, hangers and black carrying channels.
   3) Prior to being plasticized, the work areas shall be cleaned using HEPA vacuum equipment and/or wet cleaning methods as appropriate. Methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters, shall not be used.

k. All porous floor, wall and ceiling surfaces, except where abatement of ACM, PACM or asbestos material shall be performed on those specific surfaces, shall be covered with one layer of, at a minimum, 6-mil fire-retardant plastic sheeting. The floor shall be plasticized first, and its plastic sheeting shall extend up the walls a distance of at least 12 inches on all sides. The walls shall then be plasticized by applying plastic sheeting from the ceiling to the floor, overlapping the floor sheeting by at least 12 inches. Next, the ceiling shall be plasticized, overlapping the walls by at least 12 inches, to form a secure airtight seam. If the floor surface is not to be plasticized, it shall be made watertight. All seams in the plastic shall be sealed watertight and airtight.

l. Suspended ceiling tiles and T-grid components in proximity to friable ACM shall remain in place until the regulated abatement work area has been fully prepared. These potentially contaminated suspended ceiling components shall be removed at the completion of the remaining work area preparation, including establishment of negative air ventilation systems, prior to commencement of abatement activities. These removed ceiling components shall be bagged/containerized and disposed

of as asbestos waste. Critical barriers shall be installed above the suspended ceiling prior to the commencement of any abatement activities.

m. All elevator hoist way door frames shall be enclosed with nominal 2" x 4" framing, 16-inch on center, covered with 3/8-inch thickness plywood, and caulked or duct taped airtight at all seams. The enclosures shall be covered with two seamless layers of at least 6-mil plastic sheeting, duct taped and sealed airtight. A final larger layer of at least 6-mil plastic sheeting shall be duct taped and sealed airtight.

3.04 PRE-REMOVAL INSPECTIONS

A. Prior to removal of any ACM the Contractor shall notify the appropriate local authority's Third-Party Monitor and request a pre-removal inspection. Posting of warning signs, plasticizing of work area, building of decontamination enclosure systems, and all other preparatory steps shall be completed prior to notification of the appropriate local authority's Third-Party Monitor. The Contractor shall not begin asbestos removal until the appropriate local authority's Third-Party Monitor approves the work area preparations.

3.05 MAINTENANCE OF CONTAINED WORK AREA AND DECONTAMINATION ENCLOSURE SYSTEMS

A. Ensure that barriers and plastic linings are effectively sealed and taped. Repair damaged barriers and remedy defects immediately upon their discovery. Visually inspect enclosures at the beginning and end of each work period.

B. Visually inspect non-work areas and the decontamination enclosure system for water leakage. Check the floor below, ceiling and walls, and view beneath/or around the decontamination enclosure system, for signs of leakage. Perform the visual inspection a minimum of twice each 8-hour work shift.

C. The effectiveness of barriers, workers decontamination facilities, waste facilities shall be inspected and tested (as required) by the Contractor prior to start of gross removal and at least once per day/shift until successful final clearance air testing. Testing shall be performed using smoke tubes. Negative pressure exhaust units shall be operational during testing. The Contractor shall initiate testing prior to the start of removal and continue daily until satisfactory final air clearance is achieved. Results of visual inspections and tests shall be documented in the project logs. The contractor shall immediately correct any deficiencies found during inspection or testing and document corrective action.

3.06 REMOVAL OF ASBESTOS-CONTAINING MATERIAL

A. The Contractor shall be responsible for the proper removal of ACM from the work area using standard abatement industry removal techniques. Asbestos abatement work activities shall be observed by the appropriate local authority's Third-Party Monitor. Approval of the Contractor's abatement techniques is required by the appropriate local authority's Third-Party Monitor to allow for the continuance of work.

B. Negative Pressure Tent Removal: The Contractor shall use work methods and equipment which will keep the fiber count during abatement operations inside the work area to less than 0.1 fibers/cc of air when tested by NIOSH Method 7400.

C. Removal of thermal system insulation utilizing Negative Pressure Enclosure Procedures (for Gross Removal of Small Project) shall be accomplished as follows:

1. An airlock having at least 3 feet length between the two curtained doorways shall be constructed at the entrance to each and every enclosure if the decontamination unit is not attached to the enclosure, and
2. If a decontamination unit is not attached to each enclosure, located within each airlock there shall be extra clean and uncontaminated disposable protective suits (e.g., Tyvek suits), and one such clean suit shall be worn by each worker in the airlock, immediately after removal of the outer suit, before each worker exits any airlock.

D. Decontamination units that are attached to enclosures shall comprise at least a shower room and a clean room, with one curtained doorway separating them, and with a second curtained doorway separating the enclosure from the shower room.

E. The Contractor shall provide enough spot coolers in each work area to minimize the heat buildup and/or enough space heaters to minimize freezing temperature in the work area.

F. Prior to beginning of any asbestos abatement work and upon completion of the construction of all small and large size regulated abatement work area enclosures and decontamination system enclosures, including establishment of the negative air system, a 4-hour waiting period with negative air units operating shall be required to ensure that all barriers shall remain intact and secured to the walls, ceilings, floors and fixtures.

G. No dry removal or dry disturbance of asbestos material shall be permitted. The asbestos material shall be adequately wetted with amended water. Sufficient time shall be allowed for penetration to occur prior to abatement activities. All friable asbestos materials shall be thoroughly saturated. All non-hygroscopic (material that resists wetting) asbestos material shall be thoroughly wetted, prior to and during abatement.

H. Only one type of asbestos containing material shall be abated at a time within an enclosure. Prior to the abatement of another type of asbestos containing material, the area shall be cleaned.

I. After the ACM removal and bagging, the bagged waste shall be HEPA-vacuumed then wet cleaned and transferred into the airlock or into the shower room for double bagging, and thereafter the double-bagged waste shall be transferred outside the airlock or outside the clean room for its final transfer for storage in an enclosed waste container.

J. Upon completion of the abatement, the enclosure shall be wet cleaned by using rags, mops or sponges and be lightly encapsulated with clear encapsulant to lockdown residual asbestos.

K. When an enclosure unit is used, one thorough final cleaning followed by the observance of the appropriate waiting/settling or drying time requirement shall be required.

L. Tools and absorbent cleaning products (rags, mops, etc.) used for abatement or clean-up of abatement work areas shall be disposed as asbestos contaminated waste. Re-use in another work area will not be permitted.

M. Pre-Demolition Asbestos Abatement Project

1. The Contractor shall use work methods and equipment which shall keep the fiber count during abatement operations inside the work area to less than 0.1 flee of air when tested by NIOSH Method 7400.
2. Removal of asbestos-containing material using the following abatement procedure modifications shall apply for building/structures planned for demolition.
   a. Prepare the area as described in Subparagraph 3.03 of this Section. Spray asbestos materials with a fine mist of amended water or removal encapsulant, saturating materials to substrate. Spray the asbestos material repeatedly during work process to maintain a wet condition and to minimize asbestos fiber dispersion.
   b. Prior to beginning of any asbestos abatement work and upon completion of the construction of all regulated abatement work area enclosures and decontamination system enclosures, including establishment of the negative air system, a 4-hour waiting period with negative air units operating shall be required to ensure that all barriers shall remain intact and secured to the walls, ceilings, floors and fixtures.
   c. No dry removal or dry disturbance of asbestos material shall be permitted. The asbestos material shall be adequately wetted with amended water. Sufficient time shall be allowed for penetration to occur prior to abatement activities. All friable asbestos materials shall be thoroughly saturated. All non-hygroscopic (material that resists wetting) asbestos material shall be thoroughly wetted, prior to and during abatement.
   d. The sequence of abatement within a work area shall begin at the ceiling or upper level and progress one material at a time down to the floor and from most friable material to least friable material.
   e. Remove the saturated asbestos material in small sections. As it is removed, pack the material in sealable 6-mil. plastic bags which shall be placed in labeled drums for transport, if needed. Remove insulation materials carefully from equipment; do not permit them to fall to the floor.
   f. After completion of all stripping work, surfaces from which ACM have been removed shall be wet brushed and sponged or cleaned by some equivalent method to remove all visible residue. Do not use wire brushes.
   g. After the ACM removal and bagging, the bagged waste shall be HEPA vacuumed, then wet cleaned and transferred into the decontamination enclosure system. The gooseneck and double-bagged waste shall be transferred outside the decontamination enclosure system for its final transfer for storage in an enclosed waste container.

N. Exterior Project Removal of Non-friable ACM Roofing, Caulking, Glazing Compound, Transite, and other NOB ACMs.

1. The following abatement procedures shall apply for exterior removal of non-friable asbestos-containing materials currently in a non-friable intact condition, unless the ACM is rendered friable during removal or debris falls within the building/structure.
   a. The immediate work area shall be considered the area from which the asbestos containing materials are actively being removed. The asbestos project regulated abatement work area shall extend 25 feet from the perimeter of the immediate work area and shall have signage. An airlock shall be required at the entrance to the regulated abatement work area to serve as a changing area, if the workers

shall have to pass through enclosed publicly occupied space, such as from a roof through an interior stairway, to access the decontamination units.

b. The personal decontamination system enclosures can be remote but must be within 50 feet of the building/structure entrance used by the asbestos handlers (workers), and shall be removed only after obtaining satisfactory clearance air results for the regulated abatement work area or an acceptable visual inspection has determined that the abatement is complete.
c. Prior to the placement of critical barriers, affected surfaces shall be pre-cleaned using HEPA-filtered vacuum equipment and wet cleaning methods. All openings within the regulated abatement work area shall be sealed with critical barriers. The critical barriers shall be removed only after satisfactory clearance air sampling results have been obtained or the asbestos project is complete.
d. All openings (including operable windows, doors, ducts, grilles, communicating openings, etc.) 1 story above and 1 story below the roof level of the regulated abatement work area shall be sealed directly with 2 layers of at least 6-mil flame-retardant plastic sheeting. All vent openings which cannot be sealed shall be extended vertically a minimum of 8 feet and remain in operation.
e. Any windows on the floor below or above and within 25 feet of the immediate work area need to be plasticized, but if safety reasons dictate, they may be plasticized from inside the building/structure.
f. Any fixed or non-operable windows on the floor below or above and within 25 feet of the immediate work area need not to be plasticized but shall be sealed using caulking or duct tape.
g. Under areas where non-friable materials are removed without enclosures, a drop cloth, made of 6-mil fire retardant polyethylene sheeting (minimum thickness), shall be placed on the ground below the work area to prevent spread of any ACM remnants. This drop cloth shall be a minimum of 10 feet wide with an additional 10 feet of width for every floor above a floor level where removal work will take place, up to a maximum of 30 feet of width measured perpendicular to the building/structure.
h. Removal of ACM shall utilize manual wet methods for all non-friable ACM removals, and rotating blade roof cutters for roofing removals, as applicable. In no event shall methods be used that may render the ACM friable.
i. Residual non-friable ACM shall be wet scraped, and HEPA vacuumed. Materials removed shall be containerized or immediately wrapped in two layers of 6-mil fire retardant plastic sheeting and secured air tight prior to transport to the waste decontamination facility.
j. Asbestos containing materials will not be allowed to accumulate in the work area or on the drop cloth.
k. Waste bags and containers may be lowered to the waste trailer/dumpster by crane or hoist using a temporary waste transfer container of adequate size and strength.
l. Gaskets and packing materials were not sampled during the RMS per the appropriate local authority's request. The Contractor shall assume all gaskets and packing materials are PACM. Removal of Assumed ACM Gasket and Packing Materials on pipe flange and/or valve connections in various locations: The Contractor shall apply for a site specific variance for the removal of assumed gasket and packing materials. The site-specific variance procedure shall be outlined as follows:
    1) Work Sequence: Cutting of the piping associated with the valves & flanges with asbestos containing gasket material.

a) This procedure applies specifically to the intact removal of valves and flange connections with assumed asbestos containing gaskets and valve packing.
b) On each floor, yellow caution warning tapes shall be installed around the area to be worked on.
c) The exterior of the gasket or packing materials shall be wrapped in Asbestos Warning tape prior to any removal activities being initiated.
d) Fire retardant six (6) mil plastic will be installed on the floor as a drop cloth on the floor under and around the area to be worked on.
e) The metal piping on each side, approximately 6" away from the valve/flange connections, shall be marked using colored spray paint.
f) The valve/flange shall be tied off and supported to prevent it from dropping to the floor.
g) Workers shall then cut the piping using mechanical means or cutting torch.
h) The suspended valve/flange shall then be carefully released to allow it to rest on the floor.
i) The ACM shall not be disturbed during this process.
j) A two (2) men asbestos abatement crew wearing double layers of disposable clothing, half-face respirators, eye protection, work boots and a hard hat (equipped with cleaning equipment such as HEPA filtration unit, spray bottle, and wet rags), will be on standby on each floor during the intact cutting of the valves/flange connections.
k) Each valve/flange connection shall be carefully carted by the abatement crew to a designated regulated holding area. The carts shall be watertight and have doors or tops that can be closed or secured.

2) Work Sequence: Handling and disposal of the intact valves & flanges with assumed asbestos containing gasket/packing material.
a) A remote personal decontamination facility shall be established on each building.
b) The Contactor shall establish a designated and regulated holding area one on each floor using asbestos barrier tape and place 6-mil fire retardant plastic on the floor. The holding area on each floor should be at least 100 square feet.
c) Asbestos warning signs, required as per OSHA regulations shall be posted to restrict access to the regulated holding area on each floor.
d) Each gasket or packing material shall be wrapped with asbestos barrier tape prior to initiating removal operations.
e) Certified asbestos handlers wearing PPE shall then HEPA vacuum any debris or dust in or around the valves/flange’s connections.
f) The valves/flanges shall then be wet wiped using amended water.
g) The intact valves/flanges shall be wrapped in two (2) independent layers of at least six (6) mil fire-retardant plastic sheeting and sealed air tight.
h) The Contractor shall spray mist the outside of all wrapped waste and bags with amended water and seal them while they are in the regulated holding work area.
i) Concurrent with the wrapping of intact valves and flanges with assumed gasket and/or packing materials within the regulated holding area on each floor, the City’ Third-Party Monitor will collect daily air samples as well as five (5) daily air samples inside the regulated holding area on each floor.

j) At the end of each shift, all wrapped valve/flange connections and sealed bags shall be carted directly to the lockable trailer and/or lockable hardtop dumpster. The transport carts shall be watertight and have doors or tops that can be closed or secured.
k) Any cloths or rags used shall be disposed of as asbestos waste.
1) All barrier tape and other disposable materials shall be placed in asbestos disposal bags.
m) Once the wrapping of intact valves/flanges is complete, the regulated holding area on each floor shall be cleaned utilizing wet methods and HEPA vacuuming. Fallowing the cleaning, a visual inspection shall be completed by the asbestos abatement supervisor to confirm that the clean-up is complete.
n) Following the abatement supervisor's visual inspection, a project monitor inspection shall be conducted by the appropriate local authority's Third-Party Monitor to confirm that the clean-up is complete.
o) Following successful project monitor visual inspection and receipt of acceptable and most recent daily PCM air samples of less than 0.0l f/cc for a given regulated holding area, dismantling of the regulated holding area may commence. In the event a fiber concentration exceeds 0.0l f/cc by PCM, the sample will then be reanalyzed by TEM (NIOSH 7402). If the analysis measures an asbestos concentration of less than 0.0l f/cc, the results would be considered satisfactory and the abatement work area may commence.

3) Work Sequence: Storage and Disposal of the double-wrapped waste.
a) All wrapped waste shall have DOT and OSHA information on the outside.
b) The waste generator label shall be placed on the outside of each wrapped waste, with work location noted.
c) A waste manifest shall be prepared for all waste removed from site.

4) Additional Removal Requirements
a) The appropriate local authority's designated representative or Third-Party Monitor may issue a stop work order if visible emissions are detected outside the work areas and/or should the fiber count in adjacent non-work areas exceed 0.01 f/cc of air or the background count (use the greater of these two values as the reference). Work shall not resume until the condition(s) causing the increase are corrected, surfaces outside of the work area are decontaminated using HEPA vacuums or wet cleaning techniques and the Contractor receives written notice from the appropriate local authority.

3.07 ACM WASTE PACKAGING AND LOAD OUT PROCEDURES

A. Packaging of ACM

1. Packaging of ACM shall conform to OSHA Standard 29 CFR 1926.1101, DOT 49 CFR 171,172, and 173, EPA Standard 40 CFR Part 61, and the requirement as heretofore specified. ACM waste shall be placed in a wet condition into properly labeled disposal bags or sealed in two layers of 6-mil plastic sheeting wrapped airtight and properly labeled. Materials to be transported through a non-work area building space shall be placed in hard wall shipping containers for handling. Specific requirements for

decontamination of waste containers and load out through decontamination enclosure systems are outlined below.

B. Decontamination of Impermeable Containers and Plastic Disposal Bags

1. The following procedure shall be used when removing ACM from the work area for load out through the remote personnel decontamination enclosure system.
   a. Waste removal shall not occur during worker shift changes or when workers are showering or changing.
   b. Place asbestos waste in disposal bags. Large items not able to fit into disposal bags shall be wrapped in two layers of 6-mil thick plastic sheeting. Clean outer covering of asbestos waste package by wet cleaning and/or HEPA vacuuming in the work area before transferring such items into the decontamination enclosure system.
   c. Sealed ACM bags and large items shall be taken to the staging area and then placed into a second plastic bag or completely plasticized with an additional layer of 6-mil plastic sealed with tape, as the item's physical characteristics demand. Place materials in hard wall containers, if required.
   d. The clean containerized items shall be moved into a lockable waste container.

C. Waste Load-out Through Equipment/Waste Decontamination Enclosure

1. Full Decontamination Facility: The following waste packaging and decontamination procedures shall be used when removing ACM from the work area by load out through the equipment decontamination enclosure system:
   a. Place asbestos waste in disposal bags. Large items not able to fit into disposal bags shall be wrapped in one layer of 6-mil thick plastic sheeting. Clean outer covering of asbestos waste package by wet cleaning and/or HEPA vacuuming in a designated part of the work area. Move wrapped asbestos waste to the decontamination enclosure system , wet clean each bag or object and place it inside a second disposal bag, or a second layer of 6-mil plastic sheeting, as the item's physical characteristics demand. Air volume shall be minimized, and the bags or sheeting shall be sealed airtight with tape.
   b. The clean containerized items shall be moved to the equipment decontamination enclosure holding area pending load-out to storage or disposal facilities.
   c. Load-out of containers from the decontamination enclosure holding area shall be performed by workers who have entered the equipment decontamination enclosure system from the uncontaminated non-work area. Dress workers moving asbestos waste to storage or disposal facilities in clean and disposable coveralls including hand and foot protection, and proper respiratory protection. Ensure that workers do not enter from uncontaminated areas into the equipment washroom or the work area. Ensure that contaminated workers do not exit the work area through the equipment decontamination enclosure system. These workers must shower in the personal decontamination system.
   d. Thoroughly clean the equipment decontamination enclosure system immediately upon completion of the waste load-out activities, and at the completion of each work shift.
   e. Labeled ACM waste containers or bags shall not be used for non-ACM debris or trash. Any materials placed in labeled containers or bags, whether turned inside out or not, shall be handled and disposed of as ACM waste.

3.08 CLEANUP, PERSONAL MONITORING, AND CLEARANCE TESTING OF WORK AREAS

A. Negative Pressure Enclosure

1. Clearance Procedure Utilizing Negative Pressure Enclosure Cleaning of the work areas and other contaminated areas shall be conducted in accordance with procedure described below:
   a. Step 1. Clean-up Visual inspection.
   b. Step 2. Final Clearance for Demolition - Visual Inspection and fiber Clearance count of 0.01 fiber/cc of air using NIOSH Method 7400.
      1) Area air samples will be collected prior to, during and after abatement.
      2) Aggressive clearance techniques shall be used prior to any clearance testing in all negative pressure enclosure systems.
      3) To determine final air clearance for demolition, the following minimum number of air samples shall be collected for each enclosure (provided that the amount of ACM is less than 50 linear feet or 50 square feet per enclosure):
         a) Three PCM samples inside work area.
         b) Three PCM samples - outside work area.
         c) All PCM results must satisfy the clearance criteria for demolition.
   c. Pre-Demolition Asbestos Abatement Project: Final clean-up and clearance procedures for pre-demolition abatement project is described in the following two (2) step clean-up process:
      1) Step 1. First Cleanup Visual Inspection.
      2) Step 2. Final Clean-up Visual Inspection.
   d. First Cleaning, Lockdown Encapsulation and Top Layer Removal:
   e. All surfaces of the regulated abatement work area shall be first wet-cleaned using rags, mops and sponges. For collecting excess liquid and wet debris, a wet purpose HEPA filtered shop vacuum may be used and shall be emptied prior to removal from the regulated abatement work area. When the first cleaning has been completed, a thin coat of a lockdown encapsulant agent shall be applied to all surfaces within the regulated abatement work area which were not the subject of removal or abatement. In no event shall lockdown encapsulant be applied to any surface which was the subject of removal or other abatement response activity, prior to obtaining satisfactory clearance air results for the regulated abatement work area. Once the lockdown encapsulant has been applied, and after 12-hours waiting/settling or drying time requirements have been met, the cleaned, exposed top barrier layer of plastic sheeting shall then be removed from walls, ceilings and floors. Windows, doors, HVAC system vents and other openings shall remain sealed. Decontamination system enclosures shall remain in place and shall continue to be utilized.
   f. Final Cleaning and Visual Inspection: After the bottom layer of plastic sheeting has been removed, all objects and surfaces in the regulated abatement work area shall be HEPA-vacuumed and then wet-cleaned. After the final cleaning is complete, clearance air sampling shall not commence until the 12-hour waiting/settling or drying time requirements have elapsed and a visual inspection has been completed by the project monitor to confirm that the scope of abatement work for the asbestos project is complete, and no visible asbestos debris/residue, pools of liquid, or condensation remain. The Contractor supervisor must complete

a satisfactory visual inspection for completeness of abatement and cleaning, prior to commencement of the project monitor visual inspection.

g. Final Pre-Demolition Clearance Sampling shall not begin until at least one hour after the area is dry from the final cleaning. Final visual inspection for demolition will be done for the purpose of observing whether cleaned areas are free of dust, dirt, and debris. Evidence of asbestos contamination identified during the inspection will necessitate further cleaning as heretofore specified.
h. When the work area passes the project monitor's visual demolition inspection, the project monitor shall perform air monitoring. Aggressive air sampling procedures shall be used within the work area. Demolition will be approved by the project monitor if the specified fiber count in the work area is achieved according to the testing laboratory.
i. A minimum of 5 PCM air samples inside the work area and 5 PCM air samples outside the work area will be collected to determine final air clearance provided that the amount of ACM is greater than 50 square feet or 50 linear feet. All PCM results must satisfy the clearance criteria for demolition. Intact asbestos abatement may negate this requirement, at the discretion of the Project Monitor.
j. When the work area passes final clearance criteria, all controls and seals established shall be removed.

B. Other Information

1. Extra time required to clean work areas in order to achieve clearance criteria shall not be considered grounds for an extension of time for contract completion.

3.09 DISPOSAL AND TRANSPORTATION OF ASBESTOS-CONTAMINATED WASTE

A. Storage of Containerized ACM

1. As the Work progresses, remove sealed and labeled bags of ACM from the work area and place in a lockable trailer, dumpster, or other container approved for storage or transport of asbestos waste. The waste container shall be lined with two layers of fire retardant plastic. Asbestos-containing waste shall remain under the positive control of the Contractor and must never be left unattended in an area or on a vehicle where unauthorized persons could gain access. Once ACM is added to the container it must be placarded for asbestos.
2. Sealed and labeled disposal bags or waste wrapped in two layers of plastic sheeting sealed airtight shall be used to transport asbestos contaminated waste to the landfill. Procedures for hauling and disposal shall comply with 40 CFR, Part 61, 49 CFR, Part 171 and 1 72, and other applicable state, regional, and local government regulations. Procedures for removal from the work area and disposal of waste are outlined below:
   a. The Contractor shall utilize a fully licensed/permitted waste hauler, to transport the asbestos material off-site, and disposal facility for the disposal of asbestos waste material. The transporter and waste disposal facility must be pre-approved by the appropriate local authority.
   b. The Contractor may utilize an asbestos waste transfer station only if pre-approved by the appropriate local authority for processing project waste. If the Contractor does not use a pre-approved transfer station, the waste shall be delivered directly to the pre-approved disposal site without transfer or commingling with waste from another site.

c. A properly completed and original "Waste Shipment Record" form shall accompany asbestos waste which is transported to a disposal facility. This form shall be signed and dated by each party who has control over the asbestos waste, and a copy retained by each party as responsibility for the waste is transferred to the next party. All original manifest forms and waste receipts shall be provided to the appropriate local authority (see Paragraph "Submittal).
d. Trucks hauling asbestos waste shall be totally enclosed to prevent loss or damage to waste containers enroute to approved landfill. The interior of the vehicles shall be lined with two layers of 6-mil plastic and waste shall completely wrapped/enclosed by poly sheeting.

3. Mark with a visible warning sign during the loading and unloading of asbestos-containing waste all vehicles used to transport the waste material. Danger sign legend, text size, style and arrangement shall conform to the requirements of EPA Standard 40 CFR Part 61.149 (d) (1).
4. Only sealed plastic bags are permitted to be deposited in the landfill. Damaged, broken sealed windows or leaking plastic bags shall be resealed prior to being deposited in the landfill. Workers shall place asbestos waste in the landfill. Throwing or dumping of containers shall not be allowed. Workers unloading and handling the sealed bags/drums or sealed windows at the disposal facility shall wear appropriate personnel protective equipment including respirators and protective clothing.
5. After the vehicle is unloaded at the landfill, the plastic sheeting that was taped to the floor, sides and top of the truck shall be carefully removed and placed in properly labeled bags for disposal with the rest of the waste.

3.10 LIST OF SUBMITTALS

A. The Contractor shall provide the required submittals as listed below and in this Section.

SUBMITTAL	DATE SUBMITTED	DATE APPROVED
Pre-Construction		
Copies of Contractor's licensing for abatement in Ohio		
Ohio EPA Notification of Demolition and Renovation/Abatement Form		
Local Agency Notifications (Police and Fire) if required		
Abatement Supervisors and Workers Respiratory Protection Program		
Employee Respirator Fit Tests		
Asbestos Landfill Documentation		

END OF SECTION

PART 1 - GENERAL

A. Regulated Materials Removal includes, but is not limited to, work during demolition or salvage of structures where regulated materials are present and need to be safely removed, gathered, staged, and disposed of in accordance with all local, state, and federal regulations.

B. This specification is performance based and is not a project design. This specification entails removal and disposal of Regulated Materials (RMR) and hazardous wastes from the Two Downtown Properties 128/130 N. Sandusky Ave, Upper Sandusky, Ohio 43551 (the Project).

C. This specification refers to the following: the appropriate local authority refers to Wyandot County or the City of Upper Sandusky, the Contractor refers to the individual or company under contract to perform the RMR put forth in this specification, the Engineer and/or Consultant refers to the firm designated to oversee Contractor's work during RMR by the appropriate local authority. **(see Appendix 1 of Division 2)**

1.01 SCOPE OF WORK

A. The Contractor shall furnish all labor, materials, supplies, equipment, power, facilities, and incidentals necessary to remove all regulated materials that will be impacted by the proposed Work as specified and as directed by the appropriate local authority. RMR shall be removed as identified in Table 2 *Hazardous Materials Inventory: Two Downtown Properties 128/130 N. Sandusky Ave*, below; and Appendix A '*Limited Hazardous Materials Survey Report for Two Downtown Properties 128/130 N Sandusky Avenue, Upper Sandusky, Wyandot, Ohio 43551'* as prepared by TRC Environmental Corporation on March 29, 2024.

ALL QUANTITES ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY FOR BIDDING PURPOSES.

Table 2

Hazardous Materials Inventory Two Downtown Properties 128/130 N. Sandusky Ave			
Location	**Material Type**	**Description**	**Quantity**
Western walk in cooler	Refrigerants	Walk-In Cooler	1
Western walk in cooler	Refrigerants	Refrigerator	2
Western walk in cooler	Refrigerants	Carbon Dioxide refrigerated liquid	1 tank
Western room near walk in freezer	Heavy Metal Containing Devices	Fluorescent (Silver Tip)	16
Western room near walk in freezer	PCB Containing Devices	PCB Ballast	8
Main restaurant floor	Refrigerants	Air Conditioner	3

Table 2

Hazardous Materials Inventory Two Downtown Properties 128/130 N. Sandusky Ave			
Location	**Material Type**	**Description**	**Quantity**
Northern basement	Miscellaneous	Grease Trap / Oil Separator	2
Northern basement	Miscellaneous	Electrical Components	4
Northern basement	Heavy Metal Containing Devices	Fluorescent (Silver Tip)	8
Northern basement	Refrigerants	Walk-In Cooler	1
Roof top	Miscellaneous	Electrical Components	1
2nd floor	Heavy Metal Containing Devices	Fluorescent (Silver Tip)	1
Northwestern old beer storage area	Refrigerants	Refrigerator	1

B. The Contractor shall furnish all labor, materials, services, insurance, permits and equipment necessary to carry out the proper removal, transportation, and off-site disposal of these items in accordance with the requirements set forth in this Section. If the Contractor uses a subcontractor to perform the Work required under this Contract, these Project Specifications shall apply to that subcontractor, which shall be referred to as the Regulated Building Material Subcontractor. The Contractor's use of a Regulated Building Material Subcontractor shall not relieve Contractor of full responsibility for the Work to be performed. The requirements included are to be adhered to as they apply to this contract. The Contractor and any subcontractors are responsible for complying with applicable Federal, State and Local laws, codes, rules, and regulations. Lastly, the quantities of Regulated Materials in these Project Specifications are only estimates. The Contractor and its subcontractor shall be responsible for verifying the quantities of Regulated Materials and including the management of all such materials in its bid.

C. The project includes work in separate and distinct work areas in each building and/or facilities as described below:

D. Prior to any demolition activities, the Contractor shall utilize appropriately trained workers to perform the required Regulated Material Removal scope of work. If the Contractor elects to remove the specified regulated materials prior to the performance of asbestos abatement, the Contractor shall utilize only licensed asbestos workers for the removal of regulated materials, including all equipment operators who will be working in the regulated abatement areas. In addition, all personnel entering the regulated areas for the purpose of performing removal of regulated materials or segregating them from debris must have received the required OSHA 40-hour Haz Mat training as outlined by 29 CFR 1910.120(a)(i), the appropriate annual refresher training as required and participate in a medical monitoring program.

1. The Contractor shall be responsible for the proper segregation and handling of all "inert construction and demolition debris" in accordance with the Project Specifications.
2. Contractor shall provide sufficient containerized storage or secured stockpiles to allow for testing of the materials after removal, and before disposal, in accordance with the disposal facility's requirements. The Contractor shall obtain copies of the disposal facilities permits indicating that the disposal facility is permitted to accept the material. Applicable permits/certification and/or acceptance letter by the disposal facility that they will accept the material throughout the contract time is required.
3. The Contractor shall provide a mercury spill kit and a detailed work plan for dealing with any potential mercury spill.
4. All material shall be transported under bills of lading or manifests approved by the appropriate local authority.
5. The Contractor shall prepare a Closure Report that is acceptable to the appropriate local authority and regulatory agencies. The closure report must demonstrate type of materials, materials that were shipped (date and time), signed waste manifests, landfill operator signed documents, and a balance sheet of all waste materials including C&D that leaves the Property.
6. If, at any time, the appropriate local authority or designated representative(s) decides that Work Practices are violating pertinent regulations or, in its opinion, endangering workers or the public, the appropriate local authority or designated representative(s) will immediately notify the Contractor (followed up in writing) that operations shall cease until corrective action is taken by the Contractor. The Contractor shall take such corrective action before proceeding with the Work. Loss or damage due to Stop Work Order(s) shall be the Contractor's responsibility.

1.02 PHASING OF WORK

A. The Contractor shall perform and complete the regulated material removal activities as directed by the appropriate local authority. The Contractor shall utilize workers with Ohio Health Department asbestos training. The Contractor shall prepare required manifests and/or shipping papers for the Project Property Owner’s (development company or their authorized agent's) approval and signature. The Project Property Owner will be identified as the Generator of the wastes, and the Contractor shall use the Project Property Owner’s existing USEPA Identification Number (USEPA ID number to be provided) for the Site. The Contractor shall be responsible for all reporting requirements, payment of taxes and fees associated with disposal of hazardous waste.

1.03 STOP WORK

A. The appropriate local authority or designated representative(s) shall have the authority to stop the Work at any time that a determination is made that conditions are not within Project Specifications and/or applicable regulations. The stoppage of work shall continue until conditions have been corrected to the satisfaction of the appropriate local authority. Standby time to resolve the problems shall be at the Contractor’s expense.

1.04 HEALTH AND SAFETY REQUIREMENTS

A. General Description: Related document Section 01535, "Safety Program". All the requirements under this section shall be fully detailed and addressed in the Contractor's Health and Safety Plan which must be submitted to the appropriate local authority for review and comment with resolutions of all comments.

B. The Contractor shall be responsible for compliance with the most stringent provisions of the applicable statutes and regulations of the State of Ohio, and the United States, including without limitation, the provisions of the United States Department of Labor Occupational Safety and Health Administration (OSHA) are observed and further that the methods of performing the Work do not involve undue danger to the personnel employed thereon, the public, and public or private property. Should-charges of violation of any of the-above be issued to the Contractor in the course of the Work, a copy of each charge and resolution thereof, shall immediately be forwarded to the appropriate local authority.

C. Chemical/Biological Hazards: The chemical and biological known hazards on the Property includes, but may not be limited to, asbestos-containing materials (ACMs), polychlorinated biphenyls (PCBs), mercury, and lead. The Contractor shall provide materials, equipment, and training to its workers to ensure their protection from these and any other chemical/biological hazards that may be identified during the course of this work. Biological hazards can include, but is not limited to, poisonous spiders & snakes, animal excrement, mold, etc.

D. Physical Hazards: The Contractor shall provide safety equipment and training to his workers to ensure their protection from any physical hazards including but not limited to trip/fall hazards, working at elevation, working on an inclined work area, heat stress, contact with energized (hot) active equipment, noise, overhead bump hazards, and electrical shock that may be present during the Work. Specific requirements include the development and implementation of a site-specific Fall Protection Plan and Fire Safety Plan. A Fall Protection Plan and Fire Safety Plan shall be required as part of the Contractor’s Site-Specific Health, Safety, and Accident Prevention Plan. Documentation of training in the use of fall and fire protection equipment and methods shall be required for all personnel present and working on the Property. A competent on-site person to supervise the project shall be required at all times.

E. Safety Act: The Williams-Steiger Occupational and Safety Health Act (OSHA) of 1970, as amended, shall be complied with during the course of this project. This Act shall govern the conduct of the Contractor’s workmen, tradesmen, material men, and subcontractors, and of visitors to the Property.

F. Accident Prevention: In order to protect the lives and health of his employees, the Contractor shall comply with all pertinent provisions of the latest edition 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 accidents which occur during the project. After attending to the injured person(s), the Contractor must immediately report an injury or loss of life to the appropriate local authority, and a copy of the Contractor ‘s report to his insurer of an accident must be provided to the appropriate local authority.

G. Emergency Response: The Contractor shall establish an Emergency Response Team made up of members of his work force. Team members shall be trained, organized, and capable of responding in the event of an accident, fire, or other emergency. The Contractor shall designate a Site Safety Coordinator to train team members regarding the location and use of site-specific fire/life safety equipment. As a minimum requirement, members of the Emergency Response Team shall be knowledgeable in standard first aid and CPR techniques, fire extinguisher use, and evacuation procedures.

H. Workmen Protection: The Contractor shall provide and maintain all safety measures necessary to properly protect workmen.

I. Emergency Actions: In an emergency affecting the safety or life of a worker, on the Property or adjoining property, the Contractor, is to prevent such threatened loss or injury without special instruction or authorization from the appropriate local authority or designated representative(s), is hereby permitted to act at his discretion.

J. Hazard Communication Act: The Contractor shall comply with the Hazard Communication Standard promulgated by the Occupational Safety and Health Administration (29 CFR 1910.1200). This program ensures that all employers provide the information they need to inform and train employees properly and to design and put in place employee protection program. It also provides necessary hazard information to employees so they can participate in, and support, the protective measures needed at their workplace. The contractor shall ensure that labels or other forms of warning are legible in English. Employer having employees who speak other languages may be required to add the information in their languages. See 29 CFR 1910.1200 for more details.

1.05 WORK SUPERVISION AND COORDINATION

A. Contractor's Supervisor: From the start of work through to the project completion the Contractor shall have on-site a responsible and Competent Supervisor. The Supervisor shall be on the Property during all working hours. When the Supervisor must leave the Property during work, all work must cease unless a replacement Supervisor is present and acceptable to the appropriate local authority.

B. Quality of Work: The Supervisor shall supervise, inspect, and direct the Work competently and efficiently, devoting such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. The Supervisor shall be responsible to see that Work complies accurately with the Contract Documents, and that all Work is of good quality and workmanship.

1.06 SUBMITTALS

A. The Contractor shall submit the following, as noted below, in accordance with the requirements specified in Section 01300 (Submittals).

B. Pre-Project Submittal

1. The following shall be submitted prior to the performance of any work.
2. Regulated Material Removal Work Plan

a. Provide a detailed written Regulated Material Removal Work Plan that describes the procedure for the removal, packaging, loading, transportation, and off-site disposal of the regulated or hazardous building materials described in the Scope of Work. The plan, at a minimum shall include:
   1) Identification of proposed transporters and disposal/recycling facilities for the off-site disposal/reuse of regulated or hazardous materials.
   2) Copies of applicable permits for the proposed transporters and disposal/ recycling facilities.
   3) Proposed level of worker training for each type of regulated or hazardous material to be removed.
   4) Names and applicable licenses of key personnel.
   5) Proof of appropriate training for workers.
   6) Proof of a current medical surveillance program for all Contractor's personnel to work on this project.
   7) Safety Data Sheets (SDS) for any chemicals to be used on this project. All products to be used on this project must have SDS approved by the appropriate local authority.

C. Proposed Detailed Work Schedule.

1. During Work Submittals
   a. Schedule of Work Change: Any changes in the Schedule of Work proposed by the Contractor shall be submitted for approval no later than seven (7) days prior to the commencement date of the proposed change.

A certified, signed, and completed copy of each "Waste Shipment Record" form used, and receipts from the off-site disposal or recycling facility which acknowledge the Contractor delivery(s) of material, shall be submitted to the County within thirty days following removal of regulated or hazardous building materials from the buildings.

2. Post Project Submittals
   a. Results of all analytical sampling data and complete copies of all chain-of-custody forms shall be provided to the appropriate local authority or designated representative(s) at the completion of the Work, unless specified otherwise.
   b. A notarized “Release of Liens” in a form acceptable to the appropriate local authority. Use the Standard AIA form. Such notarized release of all liens shall certify that all subcontractors, labor suppliers, etc., have been paid their pro rate share of all payments to date, that the Contractor has no basis for further claim, and will not make further claim for payment in any account after the first payment is made to him.
   c. Compilation of all completed and signed Waste Shipment Record forms, bills of lading or disposal/recycling receipts, hazardous material manifests, non-hazardous material manifests, tipping records and weight tickets pertaining to this project.
   d. Contractor shall submit the following items as part of his final submittals: Paid invoice verifications for sub-contractor(s), service contract agreement(s), insurance certificates, copies of the worker licenses, if required, and other submittals required per the Project Specifications.

1.07 FIRE PROTECTION AND EMERGENCY EGRESS

A. The Contractor shall be responsible for the security and safeguarding of all areas of the Property turned over by the appropriate local authority to the Contractor. The Contractor shall designate to his workers and other building occupants the means of egress in case of emergency.

B. The Contractor shall establish emergency, and fire exits from the work area. First aid kit, protective clothing and respirators shall be provided for use by qualified emergency personnel.

C. The Contractor shall coordinate its Work with the local Fire Department.

1.08 CLEANUP

A. Final Property Cleaning: Upon completion of the Work, the Contractor shall remove all temporary construction, decontamination facilities, and unused materials placed on the Property by the Contractor; put the Property in a neat and clean condition; and sweeping, cleaning, and washing required restoring the condition of the Property to its original condition.

1.09 CODES, PERMITS, AND STANDARDS

A. The Contractor shall be solely responsible for compliance with all applicable federal and state laws, ordinances, codes, rules, and regulations, which govern the removal, storage, transportation and off-site disposal or recycling of the regulated and hazardous building materials listed in the Description of Work. The current issue of each document shall govern. All work installed shall comply with all applicable codes and regulations as amended. The applicable regulations for the removal, transportation, and off-site disposal and/or recycling of the regulated and hazardous building materials includes, but not limited to, the following:

Regulated Material		**Applicable Regulation**
Mercury-Containing Switches, Smoke Detectors, Lights, Pressure Gauges	*	USEPA Universal Waste Regulations: 40 CFR 273
Lead-Acid Batteries	*	USEPA Universal Waste Regulations: 40 CFR 273
Presumed Equipment containing Chlorofluorocarbons (CFCs). Currently no CFCs have been identified on the Project	*	USEPA 40 CFR 82
	*	USDOT Hazardous Material Regulations: 49 CFR 100-185
*Where conflict among requirements or with these Project Specifications exists, the more stringent requirements shall apply.		

B. Permits, State Licenses, and Notifications: The Contractor shall be responsible for obtaining necessary permits, licenses, and certifications of personnel in conjunction with removal, hauling, and disposition of regulated and hazardous building materials and shall provide timely notification of such actions as may be required by federal and state

authorities. Fees and/or charges for these licenses, permits, and notifications shall be paid by the Contractor. Contractor shall use all notification forms where applicable.

1.10 REQUIREMENTS AND QUALIFICATIONS

A. See requirements under Section 01535, (Safety Program) and Section 01300, (Submittals).

B. Minimum Experience

1. The Contractor shall have experience with removal of regulated and hazardous building materials, as evidenced through participation in at least three (3) projects of complexity comparable to this project during the past three (3) years or less.

C. Experience and Training

1. All personnel shall at a minimum receive two-hour awareness training with regards to the regulated and hazardous building materials in these Project Specifications, as per 29 CFR 1910.1200(h). Additional training requirements are as follows:
   a. Workers shall have appropriate training for lead exposure, as specified by OSHA in its Lead Exposure in Construction (29 CFR 1926.62),
   b. Workers shall have Ohio Asbestos Worker certifications unless asbestos abatement has been completed prior to regulated and hazardous material removals. Proof of such experience shall be submitted upon request by the appropriate local authority. Improperly trained, untrained, or inexperienced personnel shall not be allowed in the work area(s). Personnel shall meet minimum training and experience requirements outlined in this Section.
   c. All workers engaged in the removal of hazardous material shall have at a minimum, 40-hour OSHA hazardous waste training, as per 29 CFR 1910.120(e) (3).

1.11 TESTING AND INSPECTION REQUIREMENTS AND RESPONSIBILITIES

A. Visual inspections will be performed by the appropriate local authority and or the designated representative(s) during and after removal of regulated and hazardous building materials to document compliance with these Project Specifications.

1.12 QUALITY ASSURANCE

A. Qualifications

1. Company specializing in performing the Work of this Section shall have a minimum of three (3) years' experience and shall have worked on three (3) projects of similar size.
2. The Work shall be performed by OSHA-certified workers, who are experienced in handling petroleum-contaminated materials, mercury, lead and other regulated and hazardous wastes.

1.13 REGULATORY REQUIREMENTS

A. Work of this Section shall conform to all requirements of all applicable regulations of governmental authorities having jurisdiction, including safety, health, and anti-pollution regulations. Where more severe requirements than those contained in the Building Code or other applicable regulations are given in this Section, the requirements of this Section shall govern.
B. Work on the project shall conform to the requirements of the governmental authorities or utilities having jurisdiction (i.e., USDOT etc.). Where more stringent requirements than those contained in the applicable governmental authority specifications are given in this Section, the more stringent requirements of this Section shall govern.

C. Conform to requirements of "*Hazardous Waste Operations and Emergency Response*" OSHA.

PART 2 - PRODUCTS

A. The Contractor shall select the appropriate materials for the packaging and shipment of all wastes in compliance with DOT shipping requirements and the requirements of the recycling/ disposal facility.

B. All packaging must be of new condition.

PART 3 - EXECUTION

3.01 PROTECTION

A. All Contractor personnel shall wear personal protective equipment and protective clothing consistent with the levels of protection required for this work as specified by OSHA and the Contractor's Site-Specific Health and Safety Plan.

B. The Contractor shall be responsible for the safety of their operation, and for any damage that may result from the Contractor's work. Erect and properly maintain at all times, as required by the conditions and progress of the Work, proper safeguards for the protection of Workers and the public and post danger warnings as required by law or otherwise required by the Contract Documents against hazards created by the Contractor’s operation. Furnish, install, and remove after completion of the Work, all signs, lights, barricades, fencing and other equipment as may be necessary for the safe execution of the Work.

3.02 DISPOSAL OF REGULATED MATERIAL

A. Description of Work: All regulated materials shall be transported and disposed off-site at approved licensed disposal facilities within the State, County and or City.

B. The Contractor shall containerize regulated materials and wastes in USDOT approved drums and containers. The Contractor shall provide the appropriate local authority and designated representative(s) with copies of all manifests, weigh tickets, and original disposal facility invoices.

3.03 LIST OF SUBMITTALS

A. The Contractor shall provide the required submittals as listed below and in this Section.

SUBMITTAL	DATE SUBMITTED	DATE APPROVED
Pre-Demolition		
Copies of Contractor's Licensing for Hazardous Material handling in Ohio		
Local Agency Notifications (Police and Fire)		
Training and Medical Releases for Hazardous Materials Supervisors and Workers		
Respiratory Protection Program and Employee Respirator Fit Tests		
Recycler / Disposal Facility Information		
Hazardous and Regulated Materials Removal / Disposal Work Plan		

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. Work under this Section shall include activities impacting various materials containing or covered by lead-containing paint (LCP) and associated work by persons who are knowledgeable, qualified, and trained in the removal, treatment and handling of lead contaminated materials, including the transportation and disposal of non-hazardous and hazardous lead construction and demolition waste containing or contaminated with lead, the recycling of metallic components covered with lead paint, and the subsequent cleaning of the affected environment. LCP includes paint found to contain any detectable amount of lead by Atomic Absorption Spectrophotometry (AAS) or X-Ray Fluorescence (XRF). The complete list of surveyed painted building components and results are in Appendix A, '*Limited Hazardous Materials Survey Report for Two Downtown Properties 128/130 N Sandusky Avenue, Upper Sandusky, Wyandot, Ohio 43551' as prepared by TRC Environmental Corporation on March 29, 2024*.

   ALL QUANTITES ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY FOR BIDDING PURPOSES.

B. All activities shall be performed in accordance with, but not limited to, the current revision of the Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulation (CFR) Part 1926.62, Lead Exposure in Construction; United States Environmental Protection Agency (USEPA) Resource Conservation and Recovery Act (RCRA) (40 CFR 260-274); and any pertinent Ohio regulations or codes

C. It is the Contractor's responsibility to be aware of and abide by the most stringent of all local, state, and federal regulations, statutes, ordinances and standards. These requirements are hereby incorporated into this specification by reference.

D. The Contractor shall be aware that LCP has been identified in the buildings and equipment scheduled for demolition and the proposed demolition project shall comply with the 29 CFR 1926.62 and its requirements. In addition, all waste generated as part of the work shall be tested in order to determine the classification of the waste. The USEPA defines Hazardous Waste as waste containing the minimum concentration of a particular contaminant identified by the Toxicity Characteristic Leaching Procedure (TCLP). The USEPA and ODH regulatory level for leachable lead (USEPA Code: D008) is 5 milligrams per liter (mg/L). Contractor shall assume that all painted surfaces are lead-containing.

E. All paint located throughout 128 and 130 N. Sandusky Ave is assumed to contain lead. Therefore, the abatement/demolition contractor will be required to comply with 29 CFR 1926.62, the "Lead in Construction" rule.

F. THIS SECTION INTENTIONALLY LEFT BLANK

G. The disturbance or dislocation of lead containing coated materials and/or any lead containing material may cause lead dust to be released into the building's atmosphere, thereby creating a potential health hazard to workers, persons in adjacent structures, and the general public. Apprise all workers, supervisory personnel, and subcontractors who will be at the Property of the seriousness of the hazard and of proper work procedures

that must be followed. Where in the performance of the Work, workers, supervisory personnel, subcontractors may encounter, disturb, or otherwise function in the immediate vicinity of any identified, known or assumed lead-hazard or lead containing material, take appropriate and continuous measures as necessary to protect all persons at all times from all potential hazards resulting from exposure to lead dust, or any other media containing lead. Such measures shall include the procedures and methods described herein, as necessary for a finished and professional piece of work, in accordance with all industry standards, and in compliance with all regulations, standards, and guidelines of applicable federal, state and local agencies.

H. As a minimum, the Contractor shall meet the administrative and supervisory requirements necessary for the coordination of all work on the project concerning all personnel, emergency arrangements, and security as outlined in this Section or incorporated by reference, as needed for a professionally completed work product that complies in all respects with all regulatory standards, laws, guidelines, statutes, and regulations.

I. Since the Property will be occupied by other workers during the construction, LCP removal activities shall be performed so as not to interfere with adjacent work activities.

1.02 SCOPE OF WORK

A. The following sections summarize procedure, engineering controls, and handling practices associated with each phase of LCP removal operations designated for this project.

1. Non-Metallic Components to be Impacted
    a. LCP has been identified on various non-metallic components throughout the buildings scheduled for demolition. All demolition work specified in these Project Specifications which impact any non-metallic LCP components shall be conducted within an established lead control (regulated) area with a remote hand wash facility/decontamination system in accordance with OSHA Lead in Construction Standards. Engineering controls and work practices shall be utilized to prevent the spread of lead dust and debris beyond the work area and limit the generation of airborne lead. All -lead painted debris generated from the demolition of those materials, shall be containerized, and stored on-site with the remainder of the non-metallic building waste materials.
2. Metal Components to be Impacted
    a. LCP has been identified on various interior and exterior metal components throughout the buildings scheduled for demolition. All demolition work specified in these Project Specifications which impacts any metallic LCP components shall be conducted within an established lead control (regulated) area with a remote hand wash facility/decontamination system in accordance with OSHA Lead in Construction Standards. Engineering controls and work practices shall be utilized to prevent the spread of lead dust and debris beyond the work area and limit the generation of airborne lead. Steel and metal generated from the demolition of the building shall be segregated and recycled as scrap metal at an approved facility. The recycling of scrap metal (regardless of LCP concentration) is exempt from USEPA RCRA Hazardous Waste Regulation.

3. Surface Preparations
    a. The Contractor is responsible for any surface preparation required in areas where welding, cutting, and heating is specified. Surface preparation techniques such as sanding, sandblasting, scraping, power washing, etc. which are utilized on surfaces coated with lead paint must be conducted in accordance with the OSHA worker protection and USEPA RCRA waste disposal standards. All work shall be conducted within an established lead control (regulated) area with a remote hand wash facility/decontamination system. Engineering controls and work practices shall be utilized to prevent the spread of lead dust and debris beyond the work area and limit the generation of airborne lead. Lead painted debris generated from the demolition of those materials, shall be containerized, and stored on-site with the remainder of the non-metallic building waste materials. The Contractor shall conduct TCLP testing or mass balance calculations on a representative sample of the stored waste materials to determine if the materials shall be disposed of as hazardous or non-hazardous construction waste. Should the waste material be determined to be hazardous, it shall be handled and disposed of in accordance with USEPA Hazardous Waste Regulations, these Project Specifications and Section 02095, "Regulated Material Removal." If the waste material is determined to be non-hazardous, it shall be disposed of as non-hazardous construction and demolition (C&D) bulk waste at an approved OEPA Solid Waste landfill.
4. Material Segregation
    a. Segregate all steel and metal components generated from the demolition of the buildings, regardless of lead content, for recycling as scrap metal. Recycling of lead painted metal is exempt from regulation by the USEPA hazardous waste.
5. Waste Testing
    a. All waste generated as part of this decommissioning project should be tested in order to determine the classification of the waste. The USEPA defines Hazardous Waste as waste containing the minimum concentration of a particular contaminant identified by the TCLP. The USEPA regulatory level for lead (EPA Code: D008) is 5 PPM (parts per million).
6. Ventilation
    a. The Contractor shall supply mechanical ventilation systems or local exhaust systems which comply with 29 CFR 1926.353 during any welding, cutting, and/or heating of steel or metal that is coated with lead-containing paint.
7. Exposure Assessments
    a. The Contractor shall conduct exposure assessments for the tasks required which impact lead paint in accordance with 29 CFR 1926.62(d) and shall implement appropriate personal protective equipment until negative exposure assessments are developed.

1.03 SUBMITTALS

A. The Contractor shall submit the following items at least two (2) weeks prior to project mobilization, in accordance with the requirements specified in Section 01300, (Submittals):

1. Written Compliance Program
    a. The Contractor shall submit for approval a Written Compliance Program that complies with 29 CFR Part 1926.62, including a written respiratory protection plan and a written medical examination and consultation plan.

2. Exposure Assessment
    a. The Contractor shall submit an exposure assessment plan as per 29 CFR 1926.62 and objective data demonstrating that the proposed operation(s) cannot result in employee exposure to airborne lead at or above the action level. The Contractor shall ensure that workers are not exposed to lead at concentrations greater than the Permissible Exposure Limit (PEL) of 50 micrograms per cubic meter of air ($\mu g/m^3$) over an eight-hour (8) time weighted average (TWA). The Contractor shall provide the name of the individual(s) or firm conducting the exposure monitoring and laboratory providing analytical services. The laboratory must be certified by National Environmental Laboratory Accreditation Program (NELAP) or other applicable certification program.
3. Training Documentation
    a. The Contractor shall submit documentation that all employees, including foremen, supervisors and any other company personnel or agents who may be exposed to airborne lead or who may be responsible for any aspects of abatement activities, have received adequate training in compliance with all applicable Federal, State and Local regulations.
4. Medical Documentation
    a. The Contractor shall submit documentation from a physician that all personnel who may be required to wear a respirator are medically monitored to determine whether they are physically capable of working while wearing the required respiratory protection without suffering adverse health effects. In addition, the Contractor shall submit documentation for all personnel that have received biological monitoring in accordance with 29 CFR Part 1926.62, including blood sampling and analysis for lead and zinc protoporphyrin levels.

1.04 PERSONAL AND AREA AIR SAMPLING

A. Personal air sampling (OSHA required monitoring) activities must be conducted by the Contractor or his duly authorized representative during any lead-based paint hazard control work or any other work involving lead containing materials. The results of such sampling shall be posted, provided to individual workers within the 5-day OSHA required timeframe. Contractor must ensure analytical result receipt no later than three calendar days after sample collection.

B. The Contractor's air sample testing lab shall be a completely and totally independent third-party firm and shall be a successful participant in the National Lead Laboratory Accreditation Program (NLLAP) or another applicable certification program. Air sample collection and analyses shall at least meet the intent of NIOSH Method 7082, 7105 or 7300.

C. Personal air samples shall be taken to at least meet the requirements of OSHA. Personal air samples must also be taken every time there is a change in the work operation, either in terms of the type of work, method of hazard control, method of engineering control/work practice control/administrative control, or other change in the hazard control process that might affect the worker's exposure to lead. Sampling will be used to determine eight-hour Time-Weighted Averages (TWA). Personal air sampling will be conducted as outlined in NIOSH Method 7082 and 29 CFR 1926.62. Among other considerations, the laboratory results of the air sampling will determine the need for medical monitoring, the need for and the types of PPE required, the degree of respiratory protection and decontamination

required, subject to the regulations. It will also help determine other safety requirements for the workers, as well as the engineering controls, work practice controls and administrative controls that are required. It will help evaluate the effectiveness of engineering controls, work practice controls, administrative controls, and worker protection measures. All air sampling will be solely at the Contractor's expense.

1.05 DISPOSAL

A. Contractor shall submit a letter from a permitted Hazardous Waste Facility, stating that the facility has agreed to accept the waste generated by the Work; is authorized to accept the waste under the laws of the State of residence; has the required capacity to treat and dispose of the material; and will provide or ensure the ultimate disposal method indicated on Uniform Hazardous Waste Manifest. Contractor shall submit a letter from a licensed scrap metal dealer, stating that the facility will accept coated metal containing lead, and that the dealer will recycle this material. This may be in the form of a letter from the company on their letterhead. In addition, Contractor shall submit a Bill of Lading for the recycled material.

B. Contractor shall submit a Waste Transporter Permit, conforming to the requirements of ODOT, to haul to the selected Waste Disposal Facility. Contractor shall submit a statement from the selected Waste Disposal Facility that the waste containers proposed for use are acceptable to the facility. Contractor shall submit a copy of the Hazardous Waste Manifest signed by the transporter and the Treatment, Storage and Disposal (TSD) facility accepting the waste.

1.06 CONTRACTOR QUALIFICATIONS

A. Work shall be performed by a firm having not less than three (3) years successful experience in comparable projects which require 29 CFR Part 1926.62 compliance and employ personnel who have received lead hazard awareness training from either an accredited lead paint training center or recognized environmental training with lead hazard awareness training experience.

B. Qualified and certified/licensed lead paint supervisor(s)/competent person(s) shall be on-site at all times during the work shift. These employees are the Contractor's representatives responsible for all compliance with these Project Specifications, as well as all applicable state, local and federal requirements. They must meet at least the minimum qualifications criteria described below.

1. A minimum of one (1) supervisor/competent person shall be on-site, where eight (8) or fewer certified/licensed lead paint workers are on-site.
2. Each additional eight (8) or fewer workers will require at least one (1) additional supervisor/competent person.

C. The Contractor is required to have trained personnel to ship hazardous materials on behalf of the Project Property Owner, in accordance with 49 CFR 172 and 178.

1.07 RECORDKEEPING

A. Contractor shall comply with 29 CFR Part 1926.62 for record-keeping of all exposure monitoring, medical surveillance and other data used in conducting the employee exposure assessment to be established and maintained. These records be kept for 30 years in accordance with 29 CFR 1910.20 and also provides employees access to such records.

1.08 HOUSEKEEPING

A. All surfaces shall be maintained free of accumulation of lead dust generated during demolition activities.

B. If applicable, separate and deposit all lead waste, including sealing tape, plastic sheeting, mop heads, sponges' filters, and disposable clothing in double polyethylene bags of at least six (6) mils thick and seal each bag separately.

C. No equipment, supplies or materials (except properly containerized waste materials) shall be removed from the project work area unless such equipment, supplies and/or materials have been cleaned free of lead debris.

1.09 HYGIENE

A. The Contractor shall provide hygiene facilities and assure employee compliance with basic hygiene practices. This provision is recognized as an industrial hygiene tool for minimizing additional sources of lead absorption from inhalation or ingestion of lead that accumulates on a worker's hand, face, or body. Hand washing facilities are to be provided for all employees occupationally exposed to lead in accordance with 29 CFR 1926.62.

1.10 PERSONAL AIR MONITORING

A. Contractor shall perform representative personal air sampling data as defined within 29 CFR 1926.62. During the first day of demolition of components with coating containing detectable levels of lead, the Contractor shall conduct initial exposure monitoring in order to establish a Time Weighted Average (TWA) exposure. TWAs shall be performed on a representative number of employees who are reasonably expected to have the highest exposure levels for each individual task. Such samples shall be collected within the appropriate breathing zone and used to determine if an upgrade in respirator requirements is needed and to determine the frequency of future air monitoring. Sampling shall be repeated a minimum of three (3) times over the course of the first two weeks of activities.

B. Results of the monitoring shall be available in writing within two (2) working days. NOTE: Prior to receiving initial air monitoring data, the Contractor shall assume results are at or above the OSHA Permissible Exposure Limit (PEL) and protect employees accordingly.

C. The Contractor shall be responsible for performing personal air monitoring on 25% of the workers that will be exposed to an activity that may potentially produce the highest concentrations of airborne lead. A minimum of two (2) workers shall be monitored per day.

1.11 EMERGENCY PLANS

A. The Contractor shall prepare a written plan for emergencies including, but not limited to; fire, injury accident, power failure, spill of hazardous waste products or materials, failure of negative air system (if used), failure of supplied air systems (if used), or any other event that may require modification of standard operating procedures during work operations. Include specific procedures to ensure safe and expedient exiting from the work area, and to provide medical attention in the event of an emergency. Contractor shall post the telephone numbers and locations of emergency services including fire, ambulance, hazardous materials team, doctor, hospital, police, and utility company in an area known to all personnel on-site. Contractor shall notify all of these emergency service groups as to the danger of entering the regulated work area and invite them to attend an informal training program by a qualified training provider/industrial hygienist on relevant aspects of lead-based paint hazard control. Contractor shall provide assistance on developing emergency plans for responding safely and efficiently to any emergency during hazard control.

1.12 SECURITY

A. The Contractor shall ensure the security of the entire building during all periods of time that the property is in the control of the Contractor. The Contractor shall provide and properly maintain a bound logbook with pre-numbered pages to ensure that every person desiring entry to any containment area will be logged in and that only properly trained, certified/licensed, medically approved and outfitted persons will be allowed to enter. Entrance shall also be allowed to any authorized representatives and inspectors from regulatory agencies. If requested, Contractor shall supply all personal protective equipment - PPE (except for respirators) to representatives and inspectors from regulatory agencies. The Contractor shall be completely responsible for building security during all phases of all lead hazard control activity. This includes, but is not limited to, the proper covering (hard covering when necessary) of all entry/exit passages, windows, and other openings, as well as the posting of all signage which meets all regulatory requirements

1.13 APPLICABLE STANDARDS AND REGULATIONS

A. All work shall conform to the standards set by applicable federal, state, and local laws, regulations, statutes, standards, ordinances, and guidelines in such form in which they exist at the time of the Work on the contract and as may be required by subsequent revisions. The Contractor has the full and acknowledged responsibility for being fully aware of, understanding and complying with any and all applicable federal, state, and local laws, regulations, statutes, standards, ordinances, and guidelines in such form in which they exist at the time of the Work on the contract and as may be required by subsequent revisions. While the following is not meant to be construed as, nor shall the Contractor consider it to be, an all-inclusive list, this project is at least subject to compliance with the more stringent of the most current issue of the following non-inclusive list of regulations and publications:

1. U.S. Department of Labor, Occupational Safety, and Health Administration (OSHA):
   a. 29 CFR 1910, General Industry Standard
   b. 29 CFR 1910.1020, Access to Employee Exposure and Medical Records
   c. 29 CFR 1910 (D), Walking/Working Surfaces

d. 29 CFR 1910.28, Safety Requirements for Scaffolding
e. 29 CFR 1910.30, Other Working Surfaces
f. 29 CFR 1910.94, Ventilation
g. 29 CFR 1910.134, Respiratory Protection
h. 29 CFR 1910.145, Signs and Tags
i. 29 CFR 1910.1025, Occupational Exposure to Lead (General Industry)
J. 29 CFR 1910.1200, Hazard Communication
k. 29 CFR 1926, Safety and Health Regulations for Construction
l. 29 CFR 1926.20, General Safety and Health Provisions
m. 29 CFR 1926.21, Safety Training and Education
n. 29 CFR 1926.25, Housekeeping
o. 29 CFR 1926.28, Personal Protective Equipment
p. 29 CFR 1926.27 and 51, Sanitation
q. 29 CFR 1926.52, Occupational Noise Exposure
r. 29 CFR 1926.55, Gases, Vapors, Fumes, Dusts, and Mists
s. 29 CFR 1926.57, Ventilation
t. 29 CFR 1926.59, Hazard Communication
u. 29 CFR 1926.62, Lead
v. 29 CFR 1926.103, Respiratory Protection
w. 29 CFR 1926.200, Accident Prevention Signs and Tags
x. 29 CFR 1926.353, Ventilation and Protection in Welding, Cutting, and Heating
y. 29 CFR 1926.354, Welding, Cutting and Heating in Way of Preservative Coatings

2. U.S. Department of Labor, Occupational Safety, and Health Administration (OSHA): U.S. Environmental Protection Agency (EPA):
   a. 40 CFR 260, General Regulations for Hazardous Waste Management
   b. 40 CFR 261, Identification and Listing of Hazardous Waste
   c. 40 CFR 262, Standards Applicable to Generators of Hazardous Waste
   d. 40 CFR 263, Standards Applicable to Transporters of Hazardous Waste
   e. 40 CFR 264, Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
   f. CFR 265, Interim Status Standards for Owners, and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities
   g. 40 CFR 268, Land Disposal Restrictions
   h. 40 CFR 302, Designation, Reportable Quantities (RQs), and Notification
   i. 40 CFR 745, Lead; Requirements for Lead-Based Paint activities in Target Housing and Child Occupied Facilities; Final Rule
3. U.S. Department of Transportation (DOT):
   a. 49 CFR 172, Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans.
   b. 49 CFR 178, Specifications for Packaging
4. U.S. Department of Health and Human Services, National Institute of Occupational Safety and Health (NIOSH):
   a. Publication 84-100 and updates, NIOSH Manual of Analytical Methods
5. Ohio Department of State Health Services:
   a. 25 Ohio Administrative Code Section 295.206 through and including Section 295.214

1.14 QUALITY ASSURANCE

A. All regulations by the above and other governing agencies in their most current version are applicable throughout this project. Where there is a conflict between this document and the cited federal, state, or local regulations or guidelines, the more restrictive or stringent requirements shall prevail. This Section refers to many requirements found in these references, but in no way is it intended to cite or reiterate all provisions therein or elsewhere. It is always the Contractor's responsibility to always and, in all ways, know, understand, and abide by all such regulations, statutes, ordinances, guidelines, and appropriate/common industry practices.

PART 2 - PRODUCTS

2.01 MATERIALS

A. All materials shall be delivered to the Property in the original packages, containers, or bundles bearing the name of the manufacturer, the brand name and product technical description.

B. No damaged or deteriorating materials shall be used. If material becomes contaminated with lead, the material shall be decontaminated or disposed of as lead-containing waste material. The cost to decontaminate and dispose of this material shall be at the expense of the Contractor.

C. Fire retardant polyethylene sheeting shall be in roll size to minimize the frequency of joints, with factory label indicating four (4) or six (6) mil thickness.

D. Six (6) mil polyethylene disposable bags shall have pre-printed OSHA/EPA/DOT labels and shall be transparent.

E. Tape (or equivalent) capable of sealing joints in adjacent polyethylene sheets and for the attachment of polyethylene sheets to finished or unfinished surfaces must be capable of adhering under both dry and wet conditions.

F. The cleaning agent detergent shall be lead specific, such as Tri-Sodium Phosphate (TSP), or equivalent.

G. Any chemical stripper and chemical neutralizer to be utilized shall be compatible with the substrate as well as with each other. Safety Data Sheets (SDS) must be submitted to the County for review prior to being brought onto the Property.

H. Labels and warning signs shall conform to OSHA 29 CFR 1926.62, USEPA 40 CFR 260 through 274 and US-DOT 49 CFR 172 as appropriate.

I. Any planking, bracing, shoring, barricades and/or temporary sheet piling, necessary to appropriately perform work activities shall conform to all applicable federal, state and local regulations.

J. Air filtration devices and vacuum units shall be equipped with HEPA filters.

2.02 TOOLS AND EQUIPMENT

A. The Contractor shall provide tools and equipment that are suitable for lead paint related activity:

B. Air monitoring equipment of the type and quantity required to monitor operations and conduct personnel exposure surveillance in accordance with OSHA requirements.

C. Electrical equipment, protective devices and power cables shall conform to all applicable codes.

D. Where lead exposures are above the OSHA Action Level or PEL, the Contractor shall provide wash facilities/shower stalls and plumbing that include sufficient hose length and drain system or an acceptable alternate. One shower stall shall be provided for each eight workers.

E. Where lead exposures are above the OSHA PEL, the Contractor shall provide exhaust air filtration units that are equipped with HEPA filters to provide local exhaust ventilation at the work area to reduce airborne lead emissions.

F. The Contractor shall provide vacuum units of suitable size and capabilities for the project which have HEPA filters capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles of zero point three micrometers (0.3 µm) in diameter or larger.

G. The Contractor shall provide ladders and/or scaffolds of adequate length, strength and sufficient quantity to support the work schedule. Scaffolds shall be equipped with safety rails and kick boards in compliance with OSHA requirements.

H. Protective clothing, respirators, and HEPA Pl00 filter cartridges shall be provided in sufficient quantities for the project.

I. Equipment suitable for building demolition and proper waste/debris collection/packing/ removal, (e.g., excavators, grapples, backhoes, roll-offs, etc.) shall be provided by the Contractor as required.

PART 3 - EXECUTION

3.01 GENERAL

A. All employees of the Contractor who perform work impacting lead containing paint shall be properly trained and certified to perform such duties.

B. All labor, materials, tools, equipment, services, testing, insurance (with specific coverage for work on lead), and incidentals which are necessary or required to perform the Work in accordance with applicable governmental regulations, industry standards and codes, and these Project Specifications shall be provided by the Contractor.

C. Prior to beginning work, the appropriate local authority and/or designated representative(s) or third-party representative(s) of the appropriate local authority and Contractor shall perform a visual survey of each work area and review conditions at the Jobsite for safety reasons. In addition, the Contractor shall instruct all workers in all

aspects of personnel protection, work procedures, emergency evacuation procedures and use of equipment including procedures unique to this project.

D. The Contractor shall verify the shutdown and isolation any heating, cooling, and ventilating air systems to prevent contamination and particulate dispersal to the other areas of the building, if applicable.

E. The Contractor verifies and confirm Lockout/Tagout of electrical power, including all receptacles and light fixtures, if applicable. The Contractor will be responsible for utility shutdowns. The use or isolation of electrical power will be coordinated with all other ongoing uses of electrical power at the Property.

F. The Contractor shall coordinate all power and fire alarm isolation with the appropriate local authority and or designated representative(s), if applicable.

G. The Contractor shall, when necessary, provide temporary power and adequate lighting and ensure safe installation of electrical equipment, including ground fault protection and power cables, in compliance with applicable electrical codes and OSHA requirements. The Contractor is responsible for proper connection and installation of electrical wiring and costs for usage

H. The Contractor shall have ladders and/or scaffolds to be utilized throughout this project in compliance with OSHA requirements, and of adequate length, strength, and sufficient quantity to support the scope of work. Use of ladders/scaffolds shall be in conformance with OSHA 29 CFR 1926 Subpart L and X requirements.

I. Work performed at heights exceeding six feet (6’) shall be performed in accordance with the OSHA Fall Protection Standard 29 CFR 1926 Subpart M including the use of personal fall arrest systems as applicable.

J. If required, temporary electrical service shall be provided by the Contractor in accordance with the requirements specified in Section 01500, "Temporary Facilities and Controls."

K. If required, temporary water service shall be provided by the Contractor in accordance with the requirements specified in other sections of this specification. The City will provide water at an additional cost to the Contractor. The Contractor shall supply sufficient water for each shift to operate the wash facility/decontamination shower units in addition to the water needed at the work area.

L. Data for random lead testing conducted on surfaces throughout the buildings as well as hazardous waste characterization results are available in Attachment A for informational purposes only. Under no circumstances shall this information be the sole means used by the Contractor for determining the extent of lead painted materials. The Contractor shall be responsible for verification of all field conditions affecting performance of the Work as described in these Project Specifications in accordance with OSHA, USEPA, OEPA, US-DOT, ODOT, and the Ohio Department of Health (ODH) standards. Compliance with the applicable requirements is solely the responsibility of the Contractor.

M. Activity impacting lead painted surfaces shall be performed in a manner which minimizes the spread of lead dust contamination and generation of airborne lead.

N. The appropriate local authority and/or a designated representative(s) thereof shall oversee the activities of the Contractor. No activity impacting lead paint shall be performed until the Project Monitor is on-site. Environmental sampling, including ambient air sampling, TCLP waste stream sampling and/or dust wipe sampling, shall be conducted throughout the project as deemed necessary.

3.02 SET-UP

A. The Contractor shall prepare a Regulated Area as follows:

1. In all areas where airborne exposures may exceed the OSHA PEL, post warning signs meeting the requirements of OSHA 29 CFR 1926.62 at each regulated area.
2. In addition, signs shall be posted at all approaches to regulated areas so that an employee may read the sign and take the necessary protective steps before entering the area. Signs must be posted in the languages understandable to the personnel on site. If a large portion of Spanish speaking personnel make up the work crews than the signs shall be posted in English and Spanish. These signs shall read:

   WARNING LEAD WORK AREA POISON NO SMOKING OR EATING

3. Establish a Regulated Area, through the use of appropriate barrier tape, etc. and control unauthorized access into the area throughout the lead paint related activity.
4. Implement appropriate engineering controls such as critical barriers, poly drop cloths, negative pressure, local exhaust ventilation, wet dust suppression methods, etc. to prevent the spread of lead contamination from the Regulated Area.

B. For exterior work areas, the Contractor shall use a High Efficiency Particulate Air (HEPA) filtered vacuum dust collection system to remove any visible existing paint chips from the ground to a distance of at least 20' out from the base of the exterior surface scheduled for lead paint removal activity prior to commencement of work and extend a 6-mil polyethylene sheet drop cloth on the ground adjacent to the exterior surface scheduled for lead paint removal activity in order to contain debris/contamination.

C. The Contractor shall provide hand wash facilities in compliance with 29 CFR 1926.51(f) and 29 CFR 1926.62 regardless of airborne lead exposure. This wash facility shall consist, at least, of potable water, towels, soap, and a HEPA vacuum.

D. If air monitoring data by the Contractor or Project Monitor shows that employee exposure to airborne lead exceeds the OSHA PEL (50 µg/m³), shower rooms must be provided and utilized. The Shower Room shall be of sufficient capacity to accommodate the number of workers. One shower stall shall be provided for each eight (8) workers. Showers shall be equipped with hot and cold or warm running water through the use of electric hot water heaters supplied by the Contractor. Shower wash water shall be collected and disposed off-site in accordance with applicable regulations. Shower stalls and plumbing shall include sufficient hose length and drain system or an acceptable alternate.

3.03 PERSONAL PROTECTION

A. The Contractor shall initially determine if any employee performing construction tasks impacting lead paint may be exposed to lead at or above the OSHA Action Level of

30 micrograms per cubic meter of air (30 µg/m³). Assessments shall be based on initial air monitoring results, as well as other relevant information. Monitoring shall continue as specified in the OSHA standard until a negative exposure assessment is developed. See related Section 01535 -- Safety Program.

B. Until a negative exposure assessment is developed for the required tasks impacting lead paint, the Contractor shall ensure that all workers and authorized personnel entering the Regulated Area wear protective clothing and respirators in accordance with OSHA 29 CFR 1926.62. Protective clothing shall, at a minimum, include impervious coveralls with elastic wrists and ankles, head covering, gloves and foot coverings. Sufficient quantities shall be provided to last throughout the duration of the project.

C. Protective clothing provided by the Contractor and used during chemical removal operations shall be per the manufacture's recommendations.

D. Respiratory protective equipment shall be provided and selection shall conform to 30 CFR Part 11, 29 CFR Part 1910.134, and 29 CFR Part 1926.62. A formal respiratory protection program must be implemented in accordance with 29 CFR Part 1926.62 and Part 1910.134.

3.04 LEAD ABATEMENT PROCEDURES

A. General Requirements

1. Ensure that the Competent Person is on the job at all times. See related Section 01535 -- Safety Program.
2. Do not begin abatement work until authorized by the appropriate local authority and or designated representative(s), following a pre abatement visual inspection by the Project Monitor.
3. The Contractor shall ensure proper entry and exit procedures for workers and authorized persons who enter and leave the Regulated Area. All workers and authorized persons shall leave the Regulated Area and proceed directly to the wash or shower facilities where they will HEPA vacuum gross debris from work suit, remove and dispose of work suit, wash and dry face and hands, and vacuum clothes. Do not remove lead chips or dust by blowing or shaking of clothing. Wash water shall be collected and disposed of off-site in accordance with applicable regulations
4. No one shall eat, drink, smoke, chew gum or tobacco, or apply cosmetics while in the Regulated Area.
5. The following details the extent of each phase of operation designated for this project. Phase areas may be combined or divided at the direction of the appropriate local authority. Proceed through the sequencing of the Work phases under the direction of the appropriate local authority and or designated representativie(s).
    a. Non-metallic Components To Be Impacted: LBP has been identified on various non-metallic components throughout the interior and exterior of the buildings scheduled for demolition. All demolition work specified in other areas of these Project Specifications impacting those materials shall be conducted within an established lead control (regulated) area with a remote hand wash facility/ decontamination system in accordance with OSHA Lead in Construction Standards. Engineering controls and work practices shall be utilized to prevent the spread of lead dust and debris beyond the work area and limit the generation

of airborne lead. Lead painted debris generated from the demolition of those materials, shall be containerized and stored on-site with the remainder of the non-metallic building waste materials. Building structures waste stream characterized as non-hazardous shall be disposed of as non-hazardous construction and demolition (C&D) bulk waste at an approved Solid Waste landfill and approved licensed disposal facility in the State, County, and or City.

b. Metal Components Impacted with LBP has been identified on various metal interior and exterior components throughout the buildings scheduled for demolition. All demolition work specified in other areas of these Project Specifications impacting those materials shall be conducted within an established lead control (regulated) area with a remote hand wash facility/decontamination system in accordance with OSHA Lead in Construction Standards. Engineering controls and work practices shall be utilized to prevent the spread of lead dust and debris beyond the work area and limit the generation of airborne lead. Lead painted debris generated from the demolition of those materials, shall be containerized and stored on-site with the remainder of the non-metallic building waste materials. All steel and metal generated from the demolition of the building shall be segregated and recycled as scrap metal at an approved facility. The recycling of scrap metal (regardless of LBP concentration) is exempt from USEPA RCRA and OEPA Hazardous Waste Regulation.

6. Segregate all steel and metal components generated from the demolition of the buildings, regardless of lead content, for recycling as scrap metal. Recycling of lead painted metal is exempt from regulation by the USEPA as hazardous waste.
7. The Contractor shall conduct exposure assessments for the tasks required which impact lead paint in accordance with OSHA 29 CFR 1926.62(d) and shall implement appropriate personal protective equipment until negative exposure assessments are developed.
8. Utilize appropriate engineering controls (e.g. wet methods) as directed by 29 CFR 1926.62 to control lead emissions and contamination.
9. Properly contain wastes containing lead paint for appropriate transport/disposal.
10. Stop all work in the regulated area and take steps to decontaminate non-work areas and eliminate causes of such contamination should lead contamination be discovered in areas outside of the regulated area. The Contractor shall notify the appropriate local authority and other pertinent regulatory agency. The Contractor is responsible for determining and establishing the extent of the contamination outside the regulated work area and the associated cleanup to ensure a safe working environment.

B. Special Requirements - Demolition

1. Perform all work in a manner which minimizes the spread of lead contamination and generation of lead dust.
2. Implement dust suppression controls, such as misters, local exhausts ventilation, etc. to minimize the generation of airborne lead dust.
3. Segregate work areas from non-work areas through the use or barrier tape, polyethylene sheeting, etc.
4. Clean up immediately after demolition has been completed

C. Special Requirements - Chemical Removal

1. Apply chemical stripper in quantities and for durations as specified by the manufacturer.
2. Scrape lead paint from surface down to bare substrate with no trace of residual pigment. Use sanding, hand scraping, and dental picks to supplement chemical methods as required to remove residual pigment.
3. Apply neutralizer compatible with substrate and chemical agent to substrate following removal in accordance with manufacturer's instructions.
4. Protect adjacent surfaces from damage from chemical removal.
5. Maintain a portable eyewash station in the work area.
6. Wear respirators that will protect workers from chemical vapors.
7. Do not apply caustic agents to aluminum surfaces.

D. Special Requirements - Mechanical Paint Removal

1. Any sanders, grinders, rotary wire brushes, or needle gun removers used must be equipped with a HEPA filtered vacuum dust collection system. Cowling on the dust collection system for orbital-type tools must be capable of maintaining a continuous tight seal with the surface being abated. Cowling on the dust collection system for reciprocating-type tools shall promote an effective vacuum flow of loosened dust and debris. Inflexible cowlings may be used on flat surfaces only. Flexible contoured cowlings are required for curved or irregular surfaces.
2. Provide HEPA vacuums that are high performance designed to provide maximum static lift and maximum vacuum system flow at the actual operating vacuum condition with the shroud in use. The HEPA vacuum shall be equipped with a pivoting vacuum head.
3. Remove all lead paint from surface down to bare substrate with no trace of residual pigment. Use chemical methods, hand scraping, and dental picks to supplement abrasive removal methods as required to remove residual pigment.
4. Protect adjacent surfaces from damage from abrasive removal techniques.
5. "Sandblasting" or similar type removal techniques should be performed within full containment negative pressure enclosures.

3.05 PROHIBITED METHODS

A. The use of heat guns in excess of 700 degrees Fahrenheit to remove lead paint is prohibited.

B. The use of sand, steel grit, water, air, carbon dioxide (CO), baking soda, or any other blasting media to remove lead or lead paint without the use of a HEPA ventilated contained negative pressure enclosure is prohibited.

C. Power tool assisted grinding, sanding, cutting, or wire brushing of lead paint without the use of HEPA vacuum dust collection systems is prohibited.

D. Lead paint burning, busting of rivets painted with lead paint, welding of materials painted with lead paint, and torch cutting of materials painted with lead paint is prohibited. Where cutting, welding, busting, or torch cutting of materials is required, pre-remove the lead paint in the area affected.

E. Use of chemical strippers containing Methylene Chloride is prohibited.

F. Compressed air shall not be utilized to remove lead-containing paint or dust from any surface.

3.06 AIR MONITORING REQUIREMENTS

A. The Contractor shall provide air monitoring equipment including sample filter cassettes of the type and quantity required to properly monitor operations and personnel exposure surveillance throughout the duration of the project.

B. The Contractor shall conduct initial exposure monitoring to determine if any employee performing construction tasks impacting lead paint may be exposed to lead at or above the OSHA Action Level of 30 µg/m³. Monitoring shall continue as specified in the OSHA standard until a negative exposure assessment is developed.

C. The Contractor shall conduct personnel exposure assessment air sampling, as necessary, to assure that workers are using appropriate respiratory protection in accordance with OSHA Standard 1926.62. Documentation of air sampling results must be recorded at the Jobsite within twenty-four (24) hours of sample collection and shall be available for review until the job is complete.

D. The Project Monitor will collect air samples in accordance with the current revision of the NIOSH 7082, 7105 or 7300 Method of Air Sampling for Airborne Lead while overseeing the activities of the Contractor. Frequency and duration of the air sampling during abatement will be representative of the actual conditions at the Jobsite. The size and configuration of the project will be a factor in the number of samples required to monitor the activities and shall be determined by the Project Monitor.

E. As determined by AAS, GFAAS, ICP, or equivalent analysis, if air samples collected outside of the Regulated Area during abatement activities indicate airborne lead concentrations greater than original background levels or greater than 30 µg/m³, whichever is larger, an examination of the Regulated Area perimeter shall be conducted and the integrity of barriers shall be restored. Cleanup of surfaces outside the Regulated Area using HEPA vacuum equipment or wet cleaning techniques shall be done prior to resuming abatement activities.

F. Abatement outside the initial designated work area(s) shall not be paid for by the appropriate local authority. The Contractor will be responsible for all costs incurred from these abatement activities.

3.07 CLEAN-UP AND VISUAL INSPECTION

A. Remove and containerize all lead waste material and visible accumulations of debris, paint chips and associated items.

B. During clean up the Contractor shall utilize rags and sponges wetted with lead-specific detergent and water as well as HEPA filtered vacuum equipment.

C. The appropriate local authority and/or designated representatives shall conduct a visual inspection of the work areas to document that all surfaces have been maintained as free

as practicable of accumulations of lead in accordance with OSHA 29 CFR 1926.62(h). If visible accumulations of waste, debris, lead paint chips or dust are found in the work area, the Contractor shall repeat the cleaning, at the Contractor's expense, until the area is in compliance. The visual inspection will detect incomplete work, damage caused by the abatement activity, and inadequate cleanup of the Property. The ultimate responsibility for cleanup and re-establishment of safe working conditions rests with the Contractor.

3.08 POST ABATEMENT WORK AREA DEREGULATION

A. Following the visual inspection, any engineering controls implemented may be removed and the work area deregulated.

B. A final visual inspection of the work area shall be conducted by the Competent Person and the Project Monitor to ensure that all visible accumulations of suspect materials have been removed and that no equipment or materials associated with the abatement project remain.

C. The Contractor shall restore all work areas and auxiliary areas utilized during work to conditions equal to or better than original. Any damage caused during the performance of the work activity shall be repaired by the Contractor at no additional expense to the County.

3.09 DISPOSAL

A. Prior data has demonstrated that the building materials are coated with lead paint (RMS). It is possible that lead-based paint coated building materials may be characterized as hazardous waste for lead based on typical approach to abatement projects. Exact dimensions of loose and flakey lead painted materials to be removed should be confirmed by the Contractor to obtain accurate volumes and tonnage of potentially hazardous material to be generated for the purpose of calculating potential disposal costs.

B. The Contractor shall submit in writing, the following documentation:

1. List of the names of the hazardous waste disposal facilities that will receive hazardous material from this Project;
2. Copies "*Disposal Facility Material Acceptance Certification*" form from each facility, which shall be signed by an authorized representative of each disposal facility, and;
3. Copies of each facility's acceptance criteria and sampling frequency requirements.

C. Prior to the generation any hazardous waste, the Contractor shall notify the appropriate local authority of its selected hazardous waste transporter and disposal facility. The Contractor shall submit to the appropriate local authority the following documentation:

1. Transporter's current US DOT Certificate of Registration, and;
2. Transporter’s current Hazardous Waste Transporter Permits for the State of Ohio, the hazardous waste destination state, and any other applicable states.

D. The Contractor will then obtain an EPA ID number for the Project Property Owner. The Project Property Owner will remain generator of any waste from the project. Any changes

in transporter or facility shall be immediately forwarded to the appropriate local authority for review.

E. Handling, transportation and disposal of hazardous waste materials generated as a result of execution of this project shall comply with all Federal, State and Local regulations including the USEPA RCRA Hazardous Waste Regulations (40 CFR Parts 260-271) and the US-DOT Hazardous Materials Regulations (49 CFR Part 171-180).

F. The Contractor shall sample materials of lead painted waste stream debris for final waste characterization at a frequency established by the selected disposal facilities. The Contractor shall designate to the appropriate local authority which facility it intends to use prior to samples being taken. The Contractor is hereby notified that laboratory turnaround time is expected to be fifteen (15) working days. Turnaround time is the period of time beginning when the Contractor has completed generating the building material debris with lead paint and notifies the appropriate local authority which facility it intends to use and that the material is ready for sampling. The turnaround time ends with the Contractor's receipt of the laboratory analytical results. Any change of intended disposal facility may prompt the need to resample and will therefore restart the time required for laboratory turnaround. The Contractor shall furnish such results to the appropriate local authority . No delay claim shall be considered based upon the Contractor's failure to accommodate the laboratory turnaround time as identified above.

G. The Contractor shall obtain and complete all paperwork necessary to arrange for material disposal, including disposal facility waste profile sheets for signature by the Project Property Owner. It is solely the Contractor's responsibility to coordinate the disposal of hazardous materials with its selected treatment/recycling/disposal facility(s). Upon receipt of the final approval from the facility, the Contractor shall arrange for the loading, transport and treatment/recycling/disposal of the materials in accordance with all Federal and State regulations. No claim shall be considered based on the failure of the Contractor's disposal facility(s) to meet the Contractor's production rate or for the Contractor's failure to select sufficient facilities to meet its production rate.

H. The Contractor shall process the hazardous waste such that the material conforms to the requirements of the selected treatment/disposal facility, including but not limited to specified size and dimension. Refusal on the part of the treatment/disposal facility to accept said material solely on the basis of non-conformance of the material to the facility's physical requirements is the responsibility of the Contractor and no claim for extra work shall be accepted for reprocessing of said materials to meet these requirements.

I. Hazardous waste materials are to be properly packed and labeled for transport by the Contractor is accordance with USEPA, OEPA, ODH, ODOT and US-DOT regulations.

J. All hazardous waste manifests utilized to accompany the transportation of the waste material shall be prepared by the Contractor and signed by the Project Property Owner or the Project Property Owner's authorized agent, as the Generator, for each load of material that is packed to leave the Property. The Project Property Owner will be identified as the Generator of the wastes and the Contractor shall use the Project Property Owner's existing USEPA Identification Number (USEPA ID number TBD) for the Site. The Contractor shall be responsible for all reporting requirements, payment of taxes and fees associated with disposal of hazardous waste. The Contractor shall forward the appropriate copies of all

manifests to the Project Property Owner and appropriate local authority the same day the material leaves the Property. The Contractor shall coordinate with the Project Property Owner and County during the preparation of the manifest.

K. A load-specific certificate of disposal (i.e. completed uniform hazardous waste manifest) signed by the authorized agent representing the waste disposal facility, shall be obtained by the Contractor and promptly delivered to the Project Property Owner and County for each load. If the certificate of disposal is not received by the Project Property Owner or County within 35 days of the date that the initial transporter accepted waste, the Contractor shall contact the County and the operator of the disposal facility to obtain the certificate of disposal. If the County does not receive the certificate of disposal within 45 days, the Contractor shall prepare a written report acknowledging the missing certificate of disposal for submittal to the OEPA.

L. Material Transportation: Materials determined to be hazardous shall be transported in compliance with the applicable federal/state regulations. Transport vehicles shall not have any indentations or damage and must be free from leaks, and discharge openings must be securely closed during transportation.

M. In addition to all pertinent Federal, State, and local laws or regulatory agency polices, the Contractor shall adhere to the following precautions during the transport of hazardous materials off-site:

1. The Contractor shall maintain a waste disposal log which shall document all vehicles departing the Property. The waste disposal log shall document the vehicle identification, driver's name, date & time of departure, destination, and approximate volume, and contents of materials carried. Vehicles shall display the proper US DOT placards for the type and quantity of waste;
2. No materials shall leave the Property unless a disposal facility willing to accept all of the material being transported has agreed to accept the type, frequency, and quantity of waste;
3. Documentation must be maintained indicating that all applicable laws have been satisfied and that the materials have been successfully transported and received at the disposal facility; and,
4. The Contractor shall segregate the waste streams (i.e., concrete, wood, etc.) as directed by the receiving disposal facility.

3.10 EQUIPMENT DECONTAMINATION

A. All equipment shall be provided to the Property free of gross contamination. The appropriate local authority may prohibit from the Property any equipment that in the appropriate local authority's opinion has not been thoroughly decontaminated prior to arrival. Any decontamination of the Contractor's equipment prior to arrival at the Property shall be at the expense of the Contractor. The Contractor is prohibited from decontaminating equipment on the Property that has not been thoroughly decontaminated prior to arrival.

B. The Contractor shall furnish labor, materials, tools and equipment for decontamination of all equipment and supplies that are used to handle Hazardous Materials (As specified in Contractor's Site-Specific Health, Safety, and Accident Prevention Plan).

C. The Contractor shall use dry decontamination procedures. Residuals from dry decontamination activities shall be collected and managed as Hazardous Materials. If the results from dry methods are unsatisfactory to the appropriate local authority , the Contractor shall modify decontamination procedures as required.
D. The Contractor shall be responsible for the collection and treatment/recycling/disposal of any liquid wastes that may be generated by its decontamination activities in accordance with applicable regulations.

END OF SECTION

Appendix A

Limited Hazardous Materials Survey Report
(TRC March 29, 2024)

LIMITED HAZARDOUS MATERIALS SURVEY REPORT

Two Downtown Properties

128/130 N Sandusky Avenue Upper Sandusky
Wyandot, Ohio 43551 US

Prepared For:

Wyandot County Commissioners

Report Date: March 29, 2024

Prepared By:

1382 West Ninth Street, Suite 400
Cleveland, Ohio 44113

TRC Project Number: 588675

TABLE OF CONTENTS

Appendices

EXECUTIVE SUMMARY

Wyandot County Commissioners contracted TRC Environmental Corporation (TRC) to conduct a limited scope hazardous materials survey at 128/130 N Sandusky Avenue, Upper Sandusky, Wyandot, Ohio 43551 US (subject property). Jacob Arsulic (ES546374), TRC Environmental Scientist, conducted the survey on February 22, 2024.

Asbestos Containing Materials

Results of analysis confirmed asbestos was identified within one (1) of the 62 bulk samples collected. Asbestos-containing materials (ACM) are defined by the Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA) and the Ohio EPA as any material containing more than one percent (>1.0%) asbestos when analyzed using Polarized Light Microscopy (PLM) methods.

Any materials uncovered during renovation or demolition activities that are not addressed in this inspection report, or suspect asbestos-containing materials, must be sampled by an accredited asbestos inspector prior to any disturbance, or they must be treated as asbestos containing (ACM).

Other Regulated and Hazardous Materials Inventory

Eight suspect PCB containing fluorescent light ballasts were identified in the areas surveyed. Fluorescent ballasts manufactured prior to January 1, 1978 or ballasts that are not labeled "No PCBs" must be considered PCB containing unless testing proves otherwise.

Sixteen mercury containing light bulbs (high intensity discharge, fluorescent tubes, etc.) were identified in the areas surveyed. All mercury containing light bulbs that are scheduled for disposal should be managed according to applicable local, state and federal waste disposal regulations and requirements.

INTRODUCTION

Wyandot County Commissioners contracted TRC Environmental Corporation (TRC) to conduct a limited scope hazardous materials survey at 128/130 N Sandusky Avenue, Upper Sandusky, Wyandot, Ohio 43551 US (subject property). Jacob Arsulic (ES546374), TRC Environmental Scientist, conducted the survey on February 22, 2024.

BACKGROUND

Asbestos Containing Materials

Occupational Safety and Health Administration (OSHA) defines asbestos-containing material (ACM), as any material containing more than one percent asbestos.

The Environmental Protection Agency (EPA) defines ACM as follows:

1. Friable asbestos-containing material (ACM), is defined by the Asbestos NESHAP, as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure.

2. Nonfriable ACM is any material containing more than one percent (1%) asbestos as determined using the PLM method that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. The EPA further defines two categories of nonfriable ACM:
    a. Category I (Cat I) - Category I nonfriable ACM is any asbestos-containing packing, gasket, resilient floor covering or asphalt roofing product which contains more than one percent (1%) asbestos as determined using PLM according to the method specified in Appendix A, Subpart F, 40 CFR Part 763, and
    b. Category II (Cat II) - Category II nonfriable ACM is any material, excluding Category I nonfriable ACM, containing more than one percent (1%) asbestos as determined using PLM according to the methods specified in Appendix A, Subpart F, 40 CFR Part 763 that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

3. Regulated Asbestos-Containing Material (RACM) is (a) friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

Asbestos Sampling Procedures

The survey was conducted in accordance with the sample collection protocols established in 40 CFR 763 (AHERA), 40 CFR 61 Subpart M (NESHAP). A summary of survey activities is provided below.

Survey activities began with visual observation of the project area to identify homogeneous areas of suspect ACM. A homogeneous area consists of building materials that appear similar throughout in terms of color and texture that does not extend to other buildings. Visual

assessments were conducted in accessible areas of the building. Building materials identified as glass, wood or metal were not considered suspect ACM.

A physical assessment of each homogeneous area of suspect ACM was conducted to assess the friability and condition of the materials. Friability was assessed by physically touching suspect materials.

Based on results of the visual observation, 62 bulk samples of suspect ACM were collected in accordance with OH EPA sampling protocols. Samples of suspect materials were collected in each homogeneous area. Bulk samples were collected using wet methods as applicable to reduce the potential for fiber release. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker. Note that multiple bulk samples are collected from each homogenous area of suspect ACM observed. In accordance with U.S. EPA guidelines, multiple samples are collected from each homogenous area of miscellaneous, thermal system insulation, and surfacing materials. Note that if one or more samples within a homogenous area of suspect ACM are positive for asbestos, then all of the suspect ACM must be treated as asbestos-containing material.

Bulk samples were submitted under proper COC documentation to the laboratory. Bulk samples were analyzed by PLM utilizing the EPA's, Method for the Determination of Asbestos in Bulk Building Materials, EPA 600/M4-82-020. Analysis by PLM was performed by visual observation of the bulk sample and slides prepared of the bulk sample for microscopic examination and identification. The samples were analyzed for asbestos (Chrysotile, Amosite, Crocidolite, Anthophyllite, and Actinolite/Tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the microscopist visually estimated the relative amounts of each constituent by determining the estimated area of the asbestos compared with the area estimate of the total sample.

Other Regulated and Hazardous Materials Inventory

TRC conducted a survey for other regulated materials, hazardous materials, and hazardous materials contained in equipment. The hazardous materials survey was directed at collecting information on the type, location, and quantities of hazardous materials contained in building equipment or hazardous materials stored at the site that would have to be disposed of according to applicable federal and state regulations prior to the demolition of the site buildings and structures.

These materials fall into various categories such as Hazardous Waste, Universal Waste, Toxic Substances Control Act (TSCA) Wastes and other Regulated Wastes, depending on the component and concentration of contaminants of concern.

Any material classified as unknown will require sample collection and analysis for hazardous waste characteristics (e.g., Ignitability, Corrosivity, Reactivity, Toxicity, PCBs, and Metals analyses) in accordance with federal regulations. Based on the results of analyses, if the material is classified as a hazardous waste, it will be managed and disposed in accordance applicable regulations. Additional profile sampling and analysis may be necessary to meet the specific waste acceptance requirements of the selected disposal facility.

Laboratory Analysis

Sample analysis was performed by TRC's Industrial Hygiene Laboratory located in Windsor, Connecticut, using Polarized Light Microscopy with Dispersion Staining (PLM/DS) in accordance with the United States Environmental Protection Agency (US EPA) "Method for the Determination of Asbestos in Bulk Building Materials", EPA/600/R-93/116. The TRC laboratory is accredited through the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (No. 101424-0). TRC's Massachusetts Analytical Laboratory certification number is AA000052.

FINDINGS

Asbestos Containing Materials

Laboratory analytical results indicated the following materials were positive for asbestos in concentrations greater than 1%:

Asbestos Positive Materials
Two Downtown Properties
128/130 N. Sandusky Ave

Samples	Material	Location	Percentage/ Type	Approx. Quantity	Condition / Material Type / NESHAP Category
BM-01A BM-01B BM-01C	Black Mastic Pucks/streaks	Near Southeastern Entrance, Northwestern Wall Of Dining Room, Central Wall Of Dining Room On Northwestern Portion, Second Floor On Central Wall	3% Chrysotile	306 SF	Damaged Misc. Cat II

Negative Materials (No Asbestos Detected)

Results of the bulk sampling indicated none of the following sampled materials contained detectable levels of asbestos, based on the PLM method:

Asbestos Negative Materials
Two Downtown Properties
128/130 N. Sandusky Ave

Samples	Material Description	Material Location(s)	Estimated Quantity
CG-01A CG-01B CG-01C	White, Grey Ceramic Grout	Western Room Near Main Walk In Cooler, Western Walk In Cooler, Western Restrooms	835 SF

Asbestos Negative Materials Two Downtown Properties 128/130 N. Sandusky Ave			
Samples	**Material Description**	**Material Location(s)**	**Estimated Quantity**
DW-01A DW-01B DW-01C DW-01D DW-01E	Off White Drywall With Joint Compound	Western Room Near Walk In Cooler, Northwestern Room Containing Office Spaces And Restrooms	2438 SF
AC-01A AC-01B AC-01C	White Acoustic Ceiling Finish	Western Room With Walk In Cooler	600 SF
PL-01A PL-01B PL-01C PL-01D PL-01E PL-01F PL-01G	Grey, Off White Textured Plaster	Main Restaurant Dining Room, 2nd Floor Near Primary Location Of Fire, 2nd Floor Near North Adjoining Building, Stairwell Leading To Second Floor	7070 SF
DW-02A DW-02B DW-02C	Off White Dry Wall	In Southern Basement	235 SF
YM-01A YM-01B YM-01C	Yellow Mastic Streaks	Northwestern Wall Of Dining Room	240 SF
YM-02A YM-02B YM-02C	Yellow Floor Mastic	Northwestern Office Area	105 SF
CB-01A CB-01B CB-01C	Grey Cove Base With Adhesive	Northwestern Office Space And Women's Restroom	85 LF
WI-01A WI-01B WI-01C WI-01D WI-01E	Black, White Wire Insulation	Northern Basement , 2nd Floor Northern Area	263 LF
SC-01A SC-01B SC-01C	Grey Skim Coat In Basement Walk In Freezer	In Basement Walk In Cooler	198 SF
AR-01A AR-01B AR-01C	Black, Silver Roofing Asphalt Based Built-Up	Roof Top	2808 SF
CT-01A CT-01B CT-01C	White Ceiling Tile 1' X 1'	Stairwell Leading To Second Floor	51 SF

Hazardous Materials Inventory

Hazardous Materials Inventory Two Downtown Properties 128/130 N. Sandusky Ave			
Location	**Material Type**	**Description**	**Quantity**
Western walk in cooler	Refrigerants	Walk-In Cooler	1
Western walk in cooler	Refrigerants	Refrigerator	2
Western walk in cooler	Refrigerants	Carbon Dioxide refrigerated liquid	1 tank
Western room near walk in freezer	Heavy Metal Containing Devices	Fluorescent (Silver Tip)	16
Western room near walk in freezer	PCB Containing Devices	PCB Ballast	8
Main restaurant floor	Refrigerants	Air Conditioner	3
Northern basement	Miscellaneous	Grease Trap / Oil Separator	2
Northern basement	Miscellaneous	Electrical Components	4
Northern basement	Heavy Metal Containing Devices	Fluorescent (Silver Tip)	8
Northern basement	Refrigerants	Walk-In Cooler	1
Roof top	Miscellaneous	Electrical Components	1
2nd floor	Heavy Metal Containing Devices	Fluorescent (Silver Tip)	1
Northwestern old beer storage area	Refrigerants	Refrigerator	1

Based on the limited visual inspection, eight suspect PCB containing equipment and sixteen mercury containing fluorescent light tubes were identified at the subject property.

RECOMMENDATIONS

Asbestos Containing Materials

Results of laboratory analysis confirmed asbestos was identified within the black mastic pucks and streaks on the first floor southeastern, west central, and northwest wall and on the second floor west central wall. The asbestos-containing materials were found to be in fair condition at the time of the inspection. Removal of asbestos-containing materials is recommended to be performed by an OH EPA licensed asbestos abatement contractor, and should be handled, stored, and disposed of according to all local, state, and federal regulations.

Any materials uncovered during renovation or demolition activities that are not addressed in this inspection report, or suspect asbestos containing materials, must be sampled by an accredited asbestos inspector prior to any disturbance, or they must be treated as asbestos containing (ACM).

Other Regulated and Hazardous Materials Inventory

Eight suspect PCB containing fluorescent light ballasts were identified during the survey. Fluorescent ballasts manufactured prior to January 1, 1978 or ballasts that are not labeled "No PCBs" must be considered PCB containing unless testing proves otherwise.

Sixteen mercury containing fluorescent light tubes were identified during the survey. Fluorescent light tubes that are scheduled for disposal must be managed according to applicable local, state and federal waste disposal regulations.

DISCLAIMER

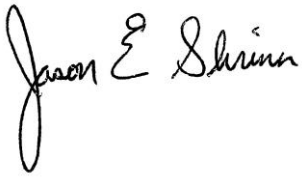
The content presented in this report is based on data collected during the site inspection and survey, review of pertinent regulations, requirements, guidelines and commonly followed industry standards, and information provided by Client, their clients, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. TRC believes the data and analysis to be accurate and relevant but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information of other parties.

This limited hazardous materials survey report is designed to aid the property owner, architect, construction manager, general contractor, and asbestos abatement contractor in locating asbestos containing materials, suspect PCB containing equipment and suspect mercury containing equipment. This report is not intended for, and may not be utilized as, a bidding document or as an abatement project specification document.

Sincerely,

TRC Environmental Corporation



Jason E. Shriner, CHMM
Project Manager

Matthew J. Hammer, PG, CP
Senior Project Manager

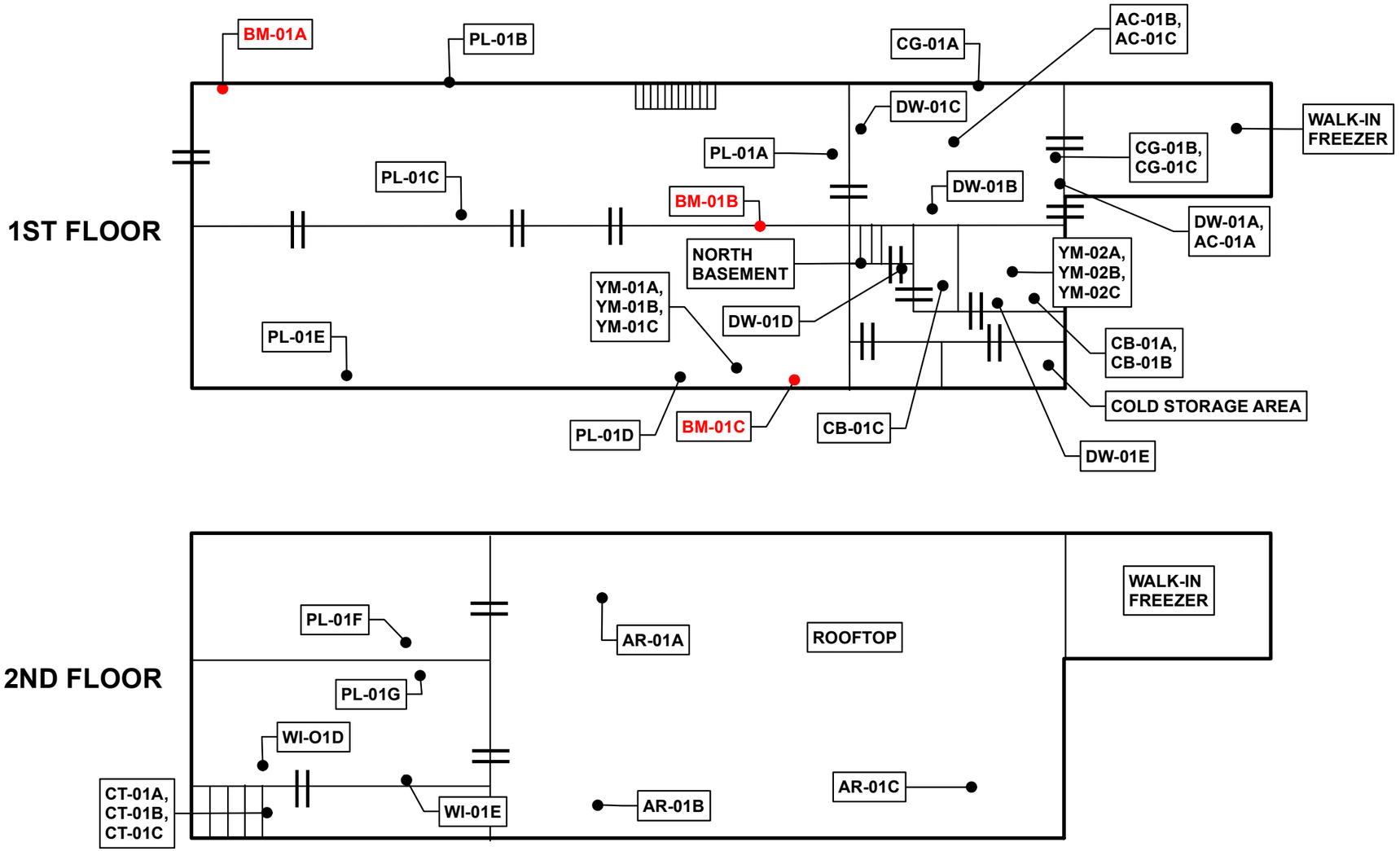
Appendix A

Sample Location Diagrams

1ST & 2ND FLOOR LAYOUT - 128/130NORTH SANDUSKY AVENUE

LEGEND

- ASBESTOS SAMPLE LOCATION
- POSITIVE ASBESTOS CONTAINING MATERIAL



N

PROJECT:
128/130 NORTH SANDUSKY AVENUE
UPPER SANDUSKY, OHIO 43551

TITLE:
1ST & 2ND FLOOR LAYOUT - ASBESTOS SAMPLE LOCATIONS

DRAWN BY:	K. FOWLER	PROJ NO.:	588675.0000.0000
CHECKED BY:	J. ARSULIC		
APPROVED BY:	J. SHRINER		FIGURE 1
DATE:	MARCH 2024		

TRC
1382 West Ninth Street, Suite 400
Cleveland, OH 44113
Phone: 216.344.3072
www.trccompanies.com

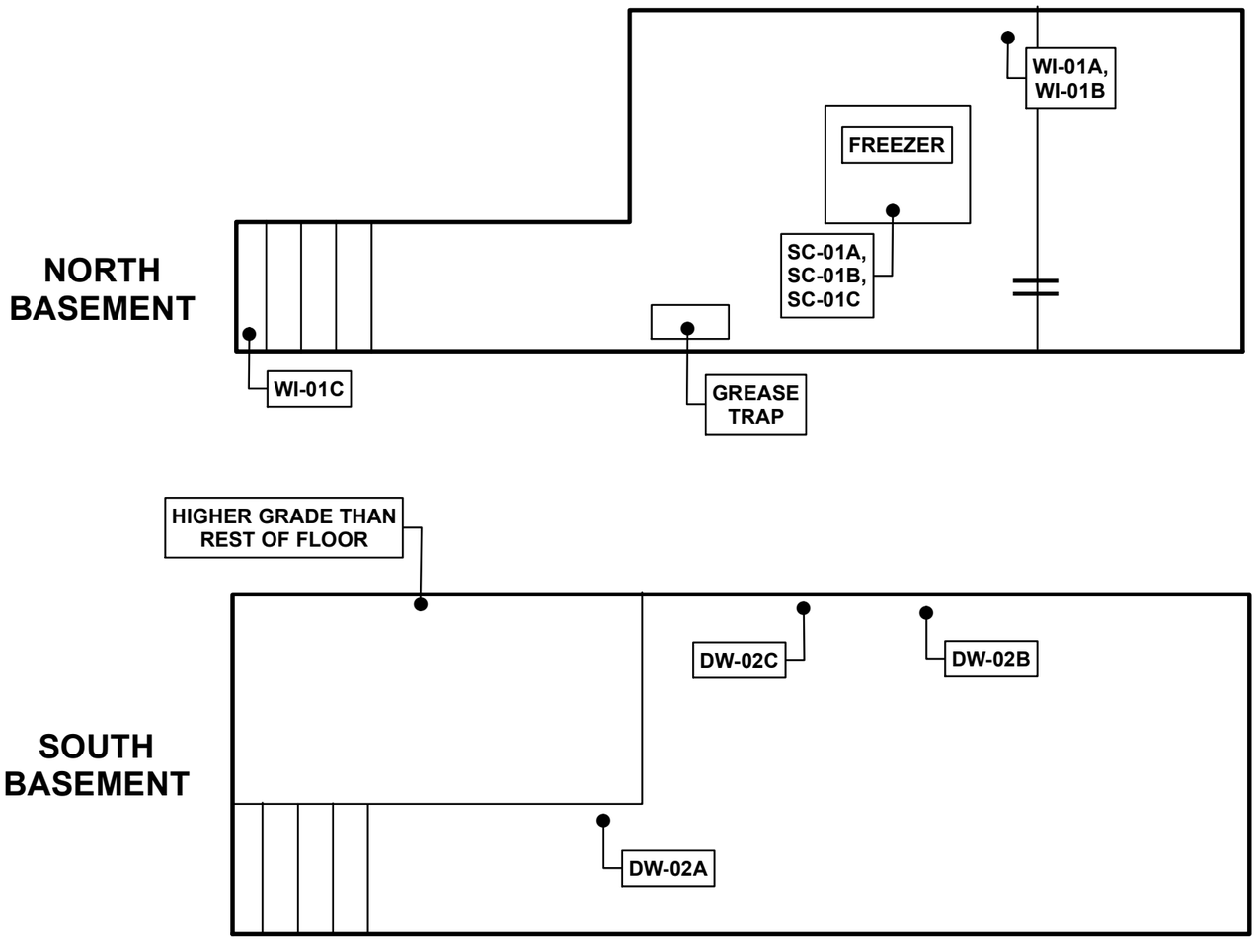
FILE NO.: Fig 02 - Asbestos - 1st Floor (128).mxd

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet (Foot US)
Map Rotation: 0
Plot Date: 3/5/2024, 13:31:55 PM by KFOWLER -- LAYOUT: ANSI B(11"x17")
Path: T:\1-PROJECTS\CLE\Wyandot County Commissioners\Fig 02 - Asbestos - 1st Floor (128).mxd
TRC - GIS

LEGEND

● ASBESTOS SAMPLE LOCATION

NORTH & SOUTH BASEMENT LAYOUT - 128/130 NORTH SANDUSKY AVENUE



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PROJECT:
128/130 NORTH SANDUSKY AVENUE
UPPER SANDUSKY, OHIO 43551

TITLE:
NORTH & SOUTH BASEMENT LAYOUT - ASBESTOS SAMPLE LOCATIONS

DRAWN BY:	K. FOWLER	PROJ NO.:	588675.0000.0000
CHECKED BY:	J. ARSULIC		
APPROVED BY:	J. SHRINER		**FIGURE 2**
DATE:	MARCH 2024		

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FILE NO.: Fig 02 - Asbestos - N and S Basement (128).mxd

Appendix B

Representative Photographs

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TWO DOWNTOWN PROPERTIES 128/130 N. SANDUSKY AVE – SUSPECT ASBESTOS CONTAINING MATERIALS PHOTOGRAPHIC LOG

Sample Numbers: CG-01A, CG-01B, CG-01C
Material Description: Ceramic Grout
Material Color: Grey White
Accessible Material: Accessible
Reason Inaccessible: N/A
Asbestos Detected: Negative
Asbestos Type: No Asbestos Detected
Homogeneous Area: Western Room Near Main Walk In Cooler , Western Walk In Cooler, Western Restrooms
Total Approximate Quantity: 835 SF
Condition: Good
Material Type: Misc.
NESHAP Category: N/A
Notes: Not Applicable

Sample Numbers: DW-01A, DW-01B, DW-01C, DW-01D, DW-01E
Material Description: Drywall With Joint Compound
Material Color: Off White
Accessible Material: Accessible
Reason Inaccessible: N/A
Asbestos Detected: Negative
Asbestos Type: No Asbestos Detected
Homogeneous Area: Western Room Near Walk In Cooler , Northwestern Room Containing Office Spaces And Restrooms
Total Approximate Quantity: 2438 SF
Condition: Good
Material Type: Misc.
NESHAP Category: N/A
Notes: Not Applicable

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TWO DOWNTOWN PROPERTIES 128/130 N. SANDUSKY AVE – SUSPECT ASBESTOS CONTAINING MATERIALS PHOTOGRAPHIC LOG

Sample Numbers: AC-01A, AC-01B, AC-01C **Material Description:** Acoustic Ceiling Finish **Material Color:** White **Accessible Material:** Accessible **Reason Inaccessible:** N/A **Asbestos Detected:** Negative **Asbestos Type:** No Asbestos Detected **Homogeneous Area:** Western Room With Walk In Cooler **Total Approximate Quantity:** 600 SF **Condition:** Damaged **Material Type:** Misc. **NESHAP Category:** N/A **Notes:** Not Applicable	
Sample Numbers: N/A **Material Description:** Fiberglass Insulation On AC Unit **Material Color:** White Yellow **Accessible Material:** Non-Suspect **Reason Inaccessible:** N/A **Asbestos Detected:** Non-Suspect **Asbestos Type:** Non-Suspect **Homogeneous Area:** On Ac Unit On Main Restaurant Floor **Total Approximate Quantity:** 16 SF **Condition:** N/A **Material Type:** N/A **NESHAP Category:** N/A **Notes:** Not Applicable	

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TWO DOWNTOWN PROPERTIES 128/130 N. SANDUSKY AVE – SUSPECT ASBESTOS CONTAINING MATERIALS PHOTOGRAPHIC LOG

Sample Numbers: PL-01A, PL-01B, PL-01C, PL-01D, PL-01E, PL-01F, PL-01G
Material Description: Textured Plaster
Material Color: Grey Off White
Accessible Material: Accessible
Reason Inaccessible: N/A
Asbestos Detected: Negative
Asbestos Type: No Asbestos Detected
Homogeneous Area: Main Restaurant Dining Room , 2nd Floor Near Primary Location Of Fire , 2nd Floor Near North Adjoining Building , Stairwell Leading To Second Floor
Total Approximate Quantity: 7070 SF
Condition: Significantly Damaged
Material Type: Misc.
NESHAP Category: N/A
Notes: Not Applicable

Sample Numbers: DW-02A, DW-02B, DW-02C
Material Description: Dry Wall
Material Color: Off White
Accessible Material: Accessible
Reason Inaccessible: N/A
Asbestos Detected: Negative
Asbestos Type: No Asbestos Detected
Homogeneous Area: In Southern Basement
Total Approximate Quantity: 235 SF
Condition: Significantly Damaged
Material Type: Misc.
NESHAP Category: N/A
Notes: This drywall appears older then other areas observed

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TWO DOWNTOWN PROPERTIES 128/130 N. SANDUSKY AVE – SUSPECT ASBESTOS CONTAINING MATERIALS PHOTOGRAPHIC LOG

Sample Numbers: BM-01A, BM-01B, BM-01C **Material Description:** Mastic Pucks/streaks **Material Color:** Black **Accessible Material:** Accessible **Reason Inaccessible:** N/A **Asbestos Detected:** Positive **Asbestos Type:** 3% Chrysotile **Homogeneous Area:** Near Southeastern Entrance , Northwestern Wall Of Dining Room , Central Wall Of Dining Room On Northwestern Portion , Second Floor On Central Wall **Total Approximate Quantity:** 306 SF **Condition:** Damaged **Material Type:** Misc. **NESHAP Category:** Cat II **Notes:** Presumed to be from a mirror	
Sample Numbers: YM-01A, YM-01B, YM-01C **Material Description:** Mastic Streaks **Material Color:** Yellow **Accessible Material:** Accessible **Reason Inaccessible:** N/A **Asbestos Detected:** Negative **Asbestos Type:** No Asbestos Detected **Homogeneous Area:** Northwestern Wall Of Dining Room **Total Approximate Quantity:** 240 SF **Condition:** Damaged **Material Type:** Misc. **NESHAP Category:** N/A **Notes:** Not Applicable	

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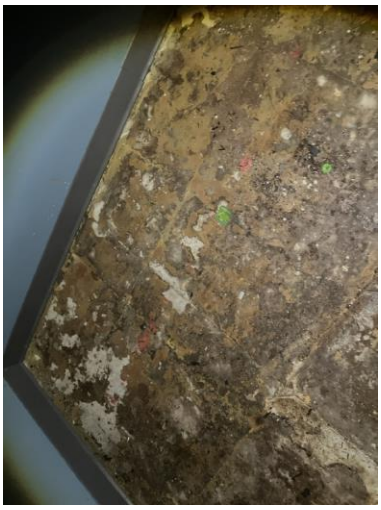
TWO DOWNTOWN PROPERTIES 128/130 N. SANDUSKY AVE – SUSPECT ASBESTOS CONTAINING MATERIALS PHOTOGRAPHIC LOG

Sample Numbers: YM-02A, YM-02B, YM-02C **Material Description:** Floor Mastic **Material Color:** Yellow **Accessible Material:** Accessible **Reason Inaccessible:** N/A **Asbestos Detected:** Negative **Asbestos Type:** No Asbestos Detected **Homogeneous Area:** Northwestern Office Area **Total Approximate Quantity:** 105 SF **Condition:** N/A **Material Type:** N/A **NESHAP Category:** N/A **Notes:** Not Applicable	
Sample Numbers: CB-01A, CB-01B, CB-01C **Material Description:** Cove Base With Adhesive **Material Color:** Grey **Accessible Material:** Accessible **Reason Inaccessible:** N/A **Asbestos Detected:** Negative **Asbestos Type:** No Asbestos Detected **Homogeneous Area:** Northwestern Office Space And Women's Restroom **Total Approximate Quantity:** 85 LF **Condition:** Good **Material Type:** Misc. **NESHAP Category:** N/A **Notes:** Not Applicable	

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TWO DOWNTOWN PROPERTIES 128/130 N. SANDUSKY AVE – SUSPECT ASBESTOS CONTAINING MATERIALS PHOTOGRAPHIC LOG

Sample Numbers: WI-01A, WI-01B, WI-01C, WI-01D, WI-01E **Material Description:** Wire Insulation **Material Color:** Black White **Accessible Material:** Accessible **Reason Inaccessible:** N/A **Asbestos Detected:** Negative **Asbestos Type:** No Asbestos Detected **Homogeneous Area:** Northern Basement , 2nd Floor Northern Area **Total Approximate Quantity:** 263 LF **Condition:** Good **Material Type:** TSI **NESHAP Category:** N/A **Notes:** Potentially running in MC cable. Could be much more. Third, fourth, and fifth sample taken from larger gauge wire	
Sample Numbers: SC-01A, SC-01B, SC-01C **Material Description:** Skim Coat In Basement Walk In Freezer **Material Color:** Grey **Accessible Material:** Accessible **Reason Inaccessible:** N/A **Asbestos Detected:** Negative **Asbestos Type:** No Asbestos Detected **Homogeneous Area:** In Basement Walk In Cooler **Total Approximate Quantity:** 198 SF **Condition:** Damaged **Material Type:** Misc. **NESHAP Category:** N/A **Notes:** Not Applicable	

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TWO DOWNTOWN PROPERTIES 128/130 N. SANDUSKY AVE – SUSPECT ASBESTOS CONTAINING MATERIALS PHOTOGRAPHIC LOG

Sample Numbers: AR-01A, AR-01B, AR-01C
Material Description: Roofing Asphalt Based Built-Up
Material Color: Black Silver
Accessible Material: Accessible
Reason Inaccessible: N/A
Asbestos Detected: Negative
Asbestos Type: No Asbestos Detected
Homogeneous Area: Roof Top
Total Approximate Quantity: 2808 SF
Condition: Damaged
Material Type: Misc.
NESHAP Category: N/A
Notes: Not Applicable

Sample Numbers: CT-01A, CT-01B, CT-01C
Material Description: Ceiling Tile 1' X 1'
Material Color: White
Accessible Material: Accessible
Reason Inaccessible: N/A
Asbestos Detected: Negative
Asbestos Type: No Asbestos Detected
Homogeneous Area: Stairwell Leading To Second Floor
Total Approximate Quantity: 51 SF
Condition: N/A
Material Type: N/A
NESHAP Category: N/A
Notes: Not Applicable

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TWO DOWNTOWN PROPERTIES 128/130 N. SANDUSKY AVE – HAZARDOUS MATERIALS INVENTORY PHOTOGRAPHIC LOG

Area: Western Walk In Cooler **Description:** Refrigerants Walk-In Cooler **Quantity:** 1 **Notes:** Two sections of western walk in cooler	
Area: Western Walk In Cooler **Description:** Refrigerants Refrigerator **Quantity:** 2 **Notes:** Connect through roof	
Area: Western Walk In Cooler **Description:** Carbon Dioxide Refrigerated Liquid **Quantity:** 1 tank **Notes:** On western exterior of building near coolers	

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TWO DOWNTOWN PROPERTIES 128/130 N. SANDUSKY AVE – HAZARDOUS MATERIALS INVENTORY PHOTOGRAPHIC LOG

Area: Western Room Near Walk In Freezer **Description:** Heavy Metal Containing Devices Fluorescent (Silver Tip) **Quantity:** 16 **Notes:** N/A	
Area: Western Room Near Walk In Freezer **Description:** PCB Containing Devices PCB Ballast **Quantity:** 8 **Notes:** Lights assumed to contain two ballasts	
Area: Main Restaurant Floor **Description:** Refrigerants Air Conditioner **Quantity:** 3 **Notes:** N/A	

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TWO DOWNTOWN PROPERTIES 128/130 N. SANDUSKY AVE – HAZARDOUS MATERIALS INVENTORY PHOTOGRAPHIC LOG

Area: Northern Basement **Description:** Miscellaneous Grease Trap / Oil Seperator **Quantity:** 2 **Notes:** N/A	
Area: Northern Basement **Description:** Miscellaneous Electrical Components **Quantity:** 4 **Notes:** N/A	
Area: Northern Basement **Description:** Heavy Metal Containing Devices Fluorescent (Silver Tip) **Quantity:** 8 **Notes:** N/A	

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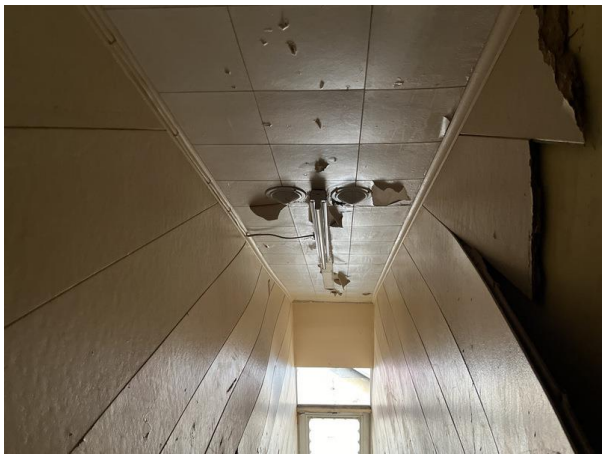
TWO DOWNTOWN PROPERTIES 128/130 N. SANDUSKY AVE – HAZARDOUS MATERIALS INVENTORY PHOTOGRAPHIC LOG

Area: Northern Basement **Description:** Refrigerants Walk-In Cooler **Quantity:** 1 **Notes:** N/A	
Area: Roof Top **Description:** Miscellaneous Electrical Components **Quantity:** 1 **Notes:** N/A	
Area: 2nd Floor **Description:** Heavy Metal Containing Devices Fluorescent (Silver Tip) **Quantity:** 1 **Notes:** Just one in stairwell	

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TWO DOWNTOWN PROPERTIES 128/130 N. SANDUSKY AVE – HAZARDOUS MATERIALS INVENTORY PHOTOGRAPHIC LOG

Area: Northwestern Old Beer Storage Area
Description: Refrigerants Refrigerator
Quantity: TBD
Notes: 1

Appendix C

Laboratory Results and Chain of Custody

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

BULK ASBESTOS ANALYSIS REPORT

CLIENT: Wyandot County Commissioners

Lab Log #: 0063812
Project #: 588675.0003.0000
Date Received: 02/26/2024
Date Analyzed: 02/27/2024

Site: 128/130 N Sandusky Avenue, Upper Sandusky, OH

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials		Asbestos %	Asbestos Type
CG-01A	In western room near entrance into southern building	White Ceramic grout		- - -	ND	None
CG-01B	Western room near main cooler	Grey Ceramic grout		- - -	ND	None
CG-01C	Western room near main cooler	Grey Ceramic grout		- - -	ND	None
DW-01A	Western wall of western room near walk in freezer	LAYER 1 White Joint compound		- - -	ND	None
DW-01A		LAYER 2 Off-White Drywall	2%	cellulose	ND	None
DW-01B	Northern wall of western room	LAYER 1 White Joint compound		- - -	ND	None
DW-01B		LAYER 2 Off-White Drywall	2%	cellulose	ND	None
DW-01C	Eastern wall of western room	LAYER 1 White Joint compound		- - -	ND	None
DW-01C		LAYER 2 Off-White Drywall	2%	cellulose	ND	None
DW-01D	Near northern stairwell	LAYER 1 White Joint compound		- - -	ND	None
DW-01D		LAYER 2 Off-White Drywall	2%	cellulose	ND	None
DW-01E	Northwestern office	LAYER 1 White Joint compound		- - -	ND	None
DW-01E		LAYER 2 Off-White Drywall	2%	cellulose	ND	None
AC-01A	Western room near walk in cooler	White Acoustic ceiling finish		- - -	ND	None
AC-01B	Western room with walk in freezer in center of room	White Acoustic ceiling finish		- - -	ND	None
AC-01C	Western room with walk in freezer in center of room	White Acoustic ceiling finish		- - -	ND	None
PL-01A	Western wall of southern dining room area	LAYER 1 White Textured plaster (skim coat)		- - -	ND	None
PL-01A		LAYER 2 Grey Textured plaster (base coat)		- - -	ND	None

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials		Asbestos %	Asbestos Type
PL-01B	Southern wall of southern dining room area	LAYER 1 White Textured plaster (skim coat)		- - -	ND	None
PL-01B		LAYER 2 Grey Textured plaster (base coat)		- - -	ND	None
PL-01C	Central wall of dining room	LAYER 1 White Textured plaster (skim coat)		- - -	ND	None
PL-01C		LAYER 2 Grey Textured plaster (base coat)		- - -	ND	None
PL-01D	Northeastern wall of dining room	LAYER 1 White Textured plaster (skim coat)		- - -	ND	None
PL-01D		LAYER 2 Grey Textured plaster (base coat)		- - -	ND	None
PL-01E	Northwestern wall of dining room	LAYER 1 White Textured plaster (skim coat)		- - -	ND	None
PL-01E		LAYER 2 Grey Textured plaster (base coat)		- - -	ND	None
PL-01F	From rooftop	LAYER 1 White Textured plaster (skim coat)		- - -	ND	None
PL-01F		LAYER 2 Grey Textured plaster (base coat)		- - -	ND	None
PL-01G	From second floor not touched by fire	LAYER 1 White Textured plaster (skim coat)		- - -	ND	None
PL-01G		LAYER 2 Grey Textured plaster (base coat)		- - -	ND	None
DW-02A	Southern basement	Off-White Drywall	2%	cellulose	ND	None
DW-02B	Southern basement	Off-White Drywall	2%	cellulose	ND	None
DW-02C	Southern basement	Off-White Drywall	2%	cellulose	ND	None
BM-01A	Southeastern wall near entrance	Black Mastic pucks/streaks		- - -	3%	Chrysotile
BM-01B	Northwestern central wall of dining room	- -		- -	NA/PS	- -
BM-01C	Northwestern wall of dining room	- -		- -	NA/PS	- -
YM-01A	Northwestern wall of dining room	Yellow Mastic streaks		- - -	ND	None
YM-01B	Northwestern wall of dining room	Yellow Mastic streaks		- - -	ND	None
YM-01C	See Diagram	Yellow Mastic streaks		- - -	ND	None
YM-02A	Northwestern office area	Yellow Floor mastic		- - -	ND	None
YM-02B	Northwestern office area	Yellow Floor mastic		- - -	ND	None

Industrial Hygiene Laboratory
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POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials		Asbestos %	Asbestos Type
YM-02C	Northwestern office area	Yellow Floor mastic		- - -	ND	None
CB-01A	Northwestern office	LAYER 1 Tan Adhesive		- - -	ND	None
CB-01A		LAYER 2 Grey Cove Base		- - -	ND	None
CB-01B	Northwestern office space	LAYER 1 Tan Adhesive		- - -	ND	None
CB-01B		LAYER 2 Grey Cove Base		- - -	ND	None
CB-01C	Women's northwestern bathroom	LAYER 1 Tan Adhesive		- - -	ND	None
CB-01C		LAYER 2 Grey Cove Base		- - -	ND	None
WI-01A	Northeastern corner of north basement	Black Wire Insulation	95%	synthetic fiber	ND	None
WI-01B	Northeastern corner of north basement	Black Wire Insulation	95%	synthetic fiber	ND	None
WI-01C	Top of north basement entrance	Black Wire Insulation	95%	synthetic fiber	ND	None
WI-01D	2nd floor on northern wall	Black Wire Insulation	95%	synthetic fiber	ND	None
WI-01E	2nd floor	Black Wire Insulation	95%	synthetic fiber	ND	None
SC-01A	Northern basement walk in cooler	Grey Skim coat in basement walk in freezer		- - -	ND	None
SC-01B	Northern basement walk in cooler	Grey Skim coat in basement walk in freezer		- - -	ND	None
SC-01C	Northern basement walk in cooler	Grey Skim coat in basement walk in freezer		- - -	ND	None
AR-01A	Roof top	Black/Silver Roofing, Asphalt Based Built-Up	10% 5%	cellulose fibrous glass	ND	None
AR-01B	From roof	Black/Silver Roofing, Asphalt Based Built-Up	10% 5%	cellulose fibrous glass	ND	None
AR-01C	From rooftop	Black/Silver Roofing, Asphalt Based Built-Up	10% 5%	cellulose fibrous glass	ND	None
CT-01A	Top of stairwell	White/Brown Ceiling Tile, 1' x 1'	99%	cellulose	ND	None
CT-01B	Top of stairwell	White/Brown Ceiling Tile, 1' x 1'	99%	cellulose	ND	None
CT-01C	Top of stairwell	White/Brown Ceiling Tile, 1' x 1'	99%	cellulose	ND	None

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials	Asbestos %	Asbestos Type

ND - asbestos was not detected
Trace - asbestos was observed at level of 1% or less - This is the reporting limit
NA/PS - Not Analyzed / Positive Stop
SNA - Sample Not Analyzed- See Chain of Custody for details
Notes: Asbestos-Containing Material (ACM) is any material containing more than 1% asbestos

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2024. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2024. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

Analyzed by: Joel Corso, Laboratory Analyst

Reviewed by: Kathleen Williamson, Laboratory Manager

Date Issued 02/29/2024

603812

TRC

1382 West Ninth Street Suite 400 Cleveland OH 44113

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORM

Client: Wyandot County Commissioners	Project Number: 588675 Phase 000003	Sampling Technician: Jacob Arsulic Mobile App: BSI - HAZMAT Survey
Project Name: Two Downtown Properties 128/130 N. Sandusky Ave 128/130 N Sandusky Ave Upper Sandusky Wyandot Ohio 43551 US	Tracking Number:	Requested TAT: 3 DAY

ASBESTOS BULK SAMPLE INFORMATION

Sample Date	Sample Identification	Material Description	Homogeneous Area	Sample Location	Lab Identification (Lab Use Only)
02/22/24	CG-01A	Ceramic grout , Grey, White	Western Room Near Main Walk In Cooler , Western Walk In Cooler, Western Restrooms	In western room near entrance into southern building	
02/22/24	CG-01B	Ceramic grout , Grey, White	Western Room Near Main Walk In Cooler , Western Walk In Cooler, Western Restrooms	Western room near main cooler	
02/22/24	CG-01C	Ceramic grout , Grey, White	Western Room Near Main Walk In Cooler , Western Walk In Cooler, Western Restrooms	Western room near main cooler	
02/22/24	DW-01A	Drywall with joint compound , Off white	Western Room Near Walk In Cooler , Northwestern Room Containing Office Spaces And Restrooms	Western wall of western room near walk in freezer	
02/22/24	DW-01B	Drywall with joint compound , Off white	Western Room Near Walk In Cooler , Northwestern Room Containing Office Spaces And Restrooms	Northern wall of western room	
02/22/24	DW-01C	Drywall with joint compound , Off white	Western Room Near Walk In Cooler , Northwestern Room Containing Office Spaces And Restrooms	Eastern wall of western room	
02/22/24	DW-01D	Drywall with joint compound , Off white	Western Room Near Walk In Cooler , Northwestern Room Containing Office Spaces And Restrooms	Near northern stairwell	
02/22/24	DW-01E	Drywall with joint compound , Off white	Western Room Near Walk In Cooler , Northwestern Room Containing Office Spaces And Restrooms	Northwestern office	
02/22/24	AC-01A	Acoustic Ceiling Finish, White	Western Room With Walk In Cooler	Western room near walk in cooler	

02/22/24	AC-01B	Acoustic Ceiling Finish, White	Western Room With Walk In Cooler	Western room with walk in freezer in center of room	
02/22/24	AC-01C	Acoustic Ceiling Finish, White	Western Room With Walk In Cooler	Western room with walk in freezer in center of room	
02/22/24	PL-01A	Textured Plaster, Grey, Off white	Main Restaurant Dining Room , 2nd Floor Near Primary Location Of Fire , 2nd Floor Near North Adjoining Building , Stairwell Leading To Second Floor	Western wall of southern dining room area	
02/22/24	PL-01B	Textured Plaster, Grey, Off white	Main Restaurant Dining Room , 2nd Floor Near Primary Location Of Fire , 2nd Floor Near North Adjoining Building , Stairwell Leading To Second Floor	Southern wall of southern dining room area	
02/22/24	PL-01C	Textured Plaster, Grey, Off white	Main Restaurant Dining Room , 2nd Floor Near Primary Location Of Fire , 2nd Floor Near North Adjoining Building , Stairwell Leading To Second Floor	Central wall of dining room	
02/22/24	PL-01D	Textured Plaster, Grey, Off white	Main Restaurant Dining Room , 2nd Floor Near Primary Location Of Fire , 2nd Floor Near North Adjoining Building , Stairwell Leading To Second Floor	Northeastern wall of dining room	
02/22/24	PL-01E	Textured Plaster, Grey, Off white	Main Restaurant Dining Room , 2nd Floor Near Primary Location Of Fire , 2nd Floor Near North Adjoining Building , Stairwell Leading To Second Floor	Northwestern wall of dining room	
02/22/24	PL-01F	Textured Plaster, Grey, Off white	Main Restaurant Dining Room , 2nd Floor Near Primary Location Of Fire , 2nd Floor Near North Adjoining Building , Stairwell Leading To Second Floor	From rooftop	
02/22/24	PL-01G	Textured Plaster, Grey, Off white	Main Restaurant Dining Room , 2nd Floor Near Primary Location Of Fire , 2nd Floor Near North Adjoining Building , Stairwell Leading To Second Floor	From second floor not touched by fire	
02/22/24	DW-02A	Dry wall , Off white	In Southern Basement	Southern basement	
02/22/24	DW-02B	Dry wall , Off white	In Southern Basement	Southern basement	
02/22/24	DW-02C	Dry wall , Off white	In Southern Basement	Southern basement	
02/22/24	BM-01A	Mastic pucks/streaks , Black	Near Southeastern Entrance , Northwestern Wall Of Dining Room , Central Wall Of Dining Room On	Southeastern wall near entrance	

			Northwestern Portion , Second Floor On Central Wall		
02/22/24	BM-01B	Mastic pucks/streaks , Black	Near Southeastern Entrance , Northwestern Wall Of Dining Room , Central Wall Of Dining Room On Northwestern Portion , Second Floor On Central Wall	Northwestern central wall of dining room	
02/22/24	BM-01C	Mastic pucks/streaks , Black	Near Southeastern Entrance , Northwestern Wall Of Dining Room , Central Wall Of Dining Room On Northwestern Portion , Second Floor On Central Wall	Northwestern wall of dining room	
02/22/24	YM-01A	Mastic streaks , Yellow	Northwestern Wall Of Dining Room	Northwestern wall of dining room	
02/22/24	YM-01B	Mastic streaks , Yellow	Northwestern Wall Of Dining Room	Northwestern wall of dining room	
02/22/24	YM-01C	Mastic streaks , Yellow	Northwestern Wall Of Dining Room	See Diagram	
02/22/24	YM-02A	Floor mastic , Yellow	Northwestern Office Area	Northwestern office area	
02/22/24	YM-02B	Floor mastic , Yellow	Northwestern Office Area	Northwestern office area	
02/22/24	YM-02C	Floor mastic , Yellow	Northwestern Office Area	Northwestern office area	
02/22/24	CB-01A	Cove Base, with Adhesive, Grey	Northwestern Office Space And Women's Restroom	Northwestern office	
02/22/24	CB-01B	Cove Base, with Adhesive, Grey	Northwestern Office Space And Women's Restroom	Northwestern office space	
02/22/24	CB-01C	Cove Base, with Adhesive, Grey	Northwestern Office Space And Women's Restroom	Women's northwestern bathroom	
02/22/24	WI-01A	Wire Insulation, Black, White	Northern Basement , 2nd Floor Northern Area	Northeastern corner of north basement	
02/22/24	WI-01B	Wire Insulation, Black, White	Northern Basement , 2nd Floor Northern Area	Northeastern corner of north basement	
02/22/24	WI-01C	Wire Insulation, Black, White	Northern Basement , 2nd Floor Northern Area	Top of north basement entrance	
02/22/24	WI-01D	Wire Insulation, Black, White	Northern Basement , 2nd Floor Northern Area	2nd floor on northern wall	

63812

02/22/24	WI-01E	Wire Insulation, Black, White	Northern Basement , 2nd Floor Northern Area	2nd floor	
02/22/24	SC-01A	Skim coat in basement walk in freezer, Grey	In Basement Walk In Cooler	Northern basement walk in cooler	
02/22/24	SC-01B	Skim coat in basement walk in freezer, Grey	In Basement Walk In Cooler	Northern basement walk in cooler	
02/22/24	SC-01C	Skim coat in basement walk in freezer, Grey	In Basement Walk In Cooler	Northern basement walk in cooler	
02/22/24	AR-01A	Roofing, Asphalt Based Built-Up, Black, Silver	Roof Top	Roof top	
02/22/24	AR-01B	Roofing, Asphalt Based Built-Up, Black, Silver	Roof Top	From roof	
02/22/24	AR-01C	Roofing, Asphalt Based Built-Up, Black, Silver	Roof Top	From rooftop	
02/22/24	CT-01A	Ceiling Tile, 1' x 1', White	Stairwell Leading To Second Floor	Top of stairwell	
02/22/24	CT-01B	Ceiling Tile, 1' x 1', White	Stairwell Leading To Second Floor	Top of stairwell	
02/22/24	CT-01C	Ceiling Tile, 1' x 1', White	Stairwell Leading To Second Floor	Top of stairwell	

Special Instruction to Laboratory:
N/A

CHAIN OF CUSTODY INFORMATION AND LABORATORY INFORMATION

Delivery Method: Third Party Shipping Service **Relinquished By:**	**Date and Time**	**Received By:**	**Date and Time**
(Print): Jacob Arsulic	02/23/2024 8:22 am America/New_York	(Print): [signature]	2/26/24 1000
(Sign):		(Sign): [signature]	
(Print):		(Print):	
(Sign):		(Sign):	
Email Results To:	**Analytical Method:** PLM EPA 600/R-93/116	**Lab Comments:**	

Appendix D

Certifications

Ohio Environmental Protection Agency

Mike DeWine, Governor
Jon Husted, Lt. Governor
Anne M. Vogel, Director

1/17/2024

Jacob Arsulic
6148 Creekhaven Dr. Apt 9
Parma Heights, OH 44130

RE: Evaluation Specialist
Certification Number: ES546374
Expiration Date: 3/1/2025

Dear Jacob Arsulic:

This letter and enclosed certification card approves your request to be certified as an asbestos Evaluation Specialist. You must present your card upon request at any project site while performing duties. Copies of cards are not acceptable as proof of certification.

This certification may be revoked by the Director of the Ohio Environmental Protection Agency (EPA) for violation of any of the requirements of 3745-22 or 3745-20 of the Ohio Administrative Code.

If you have any questions, please contact the Asbestos Program at 614-644-0226 or by email at asbestoslicensing@epa.ohio.gov.

Sincerely,

Brandon M. Schwendeman

Brandon Schwendeman
Manager, Business Operations Support Section
Ohio EPA - Division of Air Pollution Control

0 • P.O. Box 1049 • Columbus, OH 43216-1049
4) 644-3020 • (614) 644-3184 (fax)