



The City of
WORCESTER

Administration & Finance – Purchasing Division
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July 7, 2023

To All Bidders:

Subject: **8015-M4 Overhead Door Improvements/DPF**

ADDENDUM NO. 3

To Whom It May Concern:

With reference to our proposal request relative to the above subject, please refer to the changes/modifications/clarifications to the original proposal request.

- **Please review attached documents pertaining to Hazardous Materials Handling Procedures at the Worcester Fire Station #2 South Division Building Renovation Project.**

Proposers are requested to acknowledge and/or include this addendum with submission. All other terms, conditions and specifications remain unchanged.

Very truly yours,

Maureen McKeon
Assistant Purchasing Director

ADDENDUM NO. 3

to the Contract Documents Bid Set dated June 8, 2023

**WORCESTER FIRE STATION #2 SOUTH DIVISION BUILDING RENOVATION
Worcester, Massachusetts**

Mount Vernon Group Architects, Inc.
178 Albion Street SUITE 240
Wakefield, MA 01880

Addendum Date: July 6, 2023

TO ALL BIDDERS AND SUB-BIDDERS

This Addendum modifies, amends, and supplements designated parts of the Contract Documents for Worcester Fire Station #2 South Division Building Renovation project, Worcester, Massachusetts bid set dated June 8, 2023, Addendum #1 dated June 28, 2023, Addendum #2 dated June 29, 2023, and is hereby made a part thereof by reference and shall be as binding as though inserted in its entirety in the locations designated hereunder. It shall be the responsibility of each General Bidder to notify all sub-contractors and suppliers he/she proposes to use for the various parts of the works, of any changes or modifications contained in this Addendum. No claims for additional compensation because of the lack of knowledge of the contents of this Addendum will be considered.

THE NUMBER OF THIS ADDENDUM MUST BE INSERTED IN PARAGRAPH B. OF THE "FORM FOR GENERAL BID".

THIS ADDENDUM CONSISTS OF PAGES NUMBERED: **AD3-1**

THIS ADDENDUM CONSISTS OF SPECIFICATIONS: **01 35 43 - Hazardous Materials Procedures
02 28 20 - Asbestos Remediation
Appendix A - Asbestos Analysis Report (For Reference Only)**

THIS ADDENDUM CONSISTS OF DRAWINGS: **A1.01**

MISCELLANEOUS ITEMS:

CHANGES TO THE PROJECT MANUAL:

SECTION 00 00 01 – TABLE OF CONTENTS

- ITEM 001 At page 1, Division 01, add the following section:
 "01 35 43 - Hazardous Materials Procedures"
- ITEM 002 At page 1, Division 02, add the following section:
 "02 28 20 – Asbestos Remediation"
- ITEM 003 At page 2, add the following:
 "APPENDICES
 Appendix A - Asbestos Analysis Report (For Reference Only)"

END OF ADDENDUM NO. 3

SECTION 01 35 43

HAZARDOUS MATERIALS PROCEDURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. All the Contract Documents, including Drawings, General Conditions, and all Sections of Division 01 - General Requirements, apply to the Work of this Section.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Carefully examine all the Contract Documents for requirements which affect the Work of this Section.
- B. Other Specification Sections which directly relate to the Work of this Section include, but are not limited to, the following:
 - 1. DIVISION 01 – GENERAL REQUIREMENTS; including all Sections contained therein
 - 2. Section 02 41 13 – Selective Demolition
 - 3. DIVISION 03 – CONCRETE; including all Sections contained therein
 - 4. DIVISION 04 – MASONRY; including all Sections contained therein
 - 5. DIVISION 05 – METALS; including all Sections contained therein.
 - 6. DIVISION 06 – WOOD AND PLASTICS; including all Sections contained therein
 - 7. DIVISION 07 – THERMAL AND MOISTURE PROTECTION; including all Sections contained therein.
 - 8. DIVISION 08 – DOORS AND WINDOWS; including all Sections contained therein.
 - 9. DIVISION 09 – FINISHES; including all Sections contained therein.
 - 10. Section 21 00 00 – Fire Suppression
 - 11. Section 22 00 00 – Plumbing
 - 12. Section 23 00 00 - HVAC
 - 13. Section 26 00 00 – Electrical
 - 14. DIVISION 31 – EARTHWORK; including all Sections contained therein
 - 15. Section 32 12 00 – Site Improvements

1.03 HAZARDOUS MATERIALS PROCEDURES

- A. Asbestos:
 - 1. Asbestos Materials Exist On-Site: There are accessible and inaccessible asbestos containing materials (ACM). ACM affected by this project are included under this contract. Hidden ACM may only be found. Refer to items 2 and 3 below.
 - 2. The General Contractor shall retain the services of a licensed Asbestos Contractor to perform the work.
 - 3. Unknown and inaccessible ACM: It is possible that previously unknown ACM may be discovered in currently concealed locations.
 - 4. Notification: If the Contractor discover or encounter any ACM during the performance of the work, the General Contractor shall immediately:
 - a. Stop work, notify the Owner and Architect about the presence of suspect ACM and request instructions for proper action, and
 - b. Take whatever steps and measures are necessary to reduce, control or eliminate the risk of exposure of workers and the public to the ACM.

5. Responsible Person On-Site: The General Contractor shall designate one of its senior on-site employees to oversee coordination between the Architect and all subcontractors with respect to hazardous materials issues.
6. Responsibility for Hazardous Material Discovery: It is the sole responsibility of the Contractor to undertake whatever measures, methods or procedures are necessary, required or otherwise appropriate to safeguard the health and safety of all workers and members of the public with respect to identification and discovery of previously unknown hazardous materials during the work of the Project.
7. Indemnification: To the fullest extent permitted by law, the General Contractor shall indemnify and hold harmless the Owner and the Architect and their agents and employees from and against all claims, damages, losses and expenses including, but not limited to, attorneys' fees arising out of or relating to the performance of the Work, including the discovery or identification of any hazardous materials, provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to damage to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom; and is caused in whole or in part by any negligent act or omission of the General Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable regardless of whether or not it is caused in part by a party indemnified hereunder.

B. Lead:

1. The Contractor shall be made aware that Lead Based Paint exists on painted surfaces throughout the building. No testing was performed.
2. It is the Contractor responsibility to either test painted surfaces or assume that all existing painted surfaces are coated with Lead Paint. All costs for testing shall be the responsibility of the Contractor at no additional cost to the Owner.
3. All the work of this Contract shall conform to the standard set by all applicable Federal, State and Local laws, regulations, ordinance, 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 regulations.
4. The Contractor are solely responsible for means and methods, and techniques used for Contractor and/or the Demolition and lead control. The Contractor shall collect, and control lead contaminated debris and to properly remove and dispose of lead contaminated soil around the building due to Contractor's and/or the Contractor's activities.
5. The Contractor shall at his own cost and expense comply with all laws, ordinance, rules, and regulations of Federal, State, Regional and Local authorities during Demolition, prepping, sanding, cutting, burning, scraping, painting over, grinding and regarding handling, storing, and disposing of lead and lead contaminated waste material.
6. The Contractor shall submit to the Architect prior to commencing of work the following:
 - a. Written respiratory and notification program
 - b. Written lead compliance program in accordance with OSHA regulations including:
 - 1) Training requirement certifications.
 - 2) Supervisor qualifications.
 - 3) Written compliance program specific to this project
 - 4) Respirators fit test records.
 - 5) Medical surveillance certificates.
8. The EPA and the DEP require Demolition debris with lead to be tested in accordance with the Toxicity Characteristic Leaching Procedure (TCLP) to determine the potential for significant amounts of lead to leach out of the waste. If the results are below the DEP standard (5.0 ppm), the waste may be disposed of in a conventional landfill for Demolition debris. If, however, the TCLP results are above the DEP standard, the waste must be disposed of in a DEP approved, hazardous waste landfill. The Contractor shall at own cost and expense perform all required testing of waste by the TCLP. The Contractor must submit to the Owner copy of tests performed and all waste shipment records prior to disposing of debris. The Owner reserves the right to have own TCLP samples collected to verify results. All disposal costs shall be at the Contractor responsibility.

9. The following references are cited as current applicable publications. This project is subject to compliance with all regulations including but not limited to:
 - a. Commonwealth of Massachusetts, Department of Labor, and Work Force Development 454 CMR 11.00, Structural Painting Safety Code, as currently amended.
 - b. Commonwealth of Massachusetts, Department of Environmental Protection, and Hazardous Materials Regulations at 310 CMR 30.00 as currently amended.
 - c. U. S. Department of Labor, Occupational Safety and Health Administration Title 29 CFR 1910.1025 and 29 CFR Part 1926.62.
 - d. Commonwealth of Massachusetts, Department of Labor, and Work Force Development 454 CMR 22.00.
 - e. Commonwealth of Massachusetts, Department of Environmental Protection, 310 CMR 6.0-8.0.
 10. All above regulations are applicable to this project. Where there is a conflict between this section and the applicable regulations, the more stringent requirement shall prevail.
- C. PCB's:
1. The Contractor shall be made aware that building materials (Material) including but not limited to painted surfaces, caulking, glue, coatings, and other building materials are likely to contain >1 ppm of Polychlorinated Biphenyls PCB's.
 2. EPA does not require testing and therefore, no testing will be performed or permitted to be performed.
 3. All the work of this Contract shall conform to the standard set by all applicable Federal, State and Local laws, regulations, ordinance, and guidelines.
- E. Silica Dust:
1. The Contractor shall be made aware that building materials (Material) may contain Silica.
 2. Due to the difficulty associated with exhaustive testing, the Owner has elected to direct the Contractor to assume that Silica was found.
 3. The Contractor shall review and comply with most recent US Department of Labor Final Rule and shall take extra precautions to protect workers and other personnel on site.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION – NOT USED

END OF SECTION

WORCESTER FIRE STATION #2
SOUTH DIVISION BUILDING RENOVATION
180 SOUTHBRIDGE ST., WORCESTER, MA 01608
Mount Vernon Group Architects, Inc., Project No. 02023.04

JULY 6, 2023
ADDENDUM NO. 3

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SECTION 02 28 20

ASBESTOS REMEDIATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. All the Contract Documents, including Drawings, General Conditions, Supplementary Conditions, and all Sections of Division 1 - General Requirements, apply to the Work of this Section.

1.02 DESCRIPTION OF WORK

- A. The Work of this Section shall include, but not be limited to, furnishing and installation of the following:
 - 1. The General Contractor shall retain the services of a Massachusetts licensed asbestos abatement contractor to perform all related work.
 - 2. All labor, material, equipment, and services specified herein or reasonably necessary for and incidental to removal and legal disposal of Asbestos Containing Materials (ACM).
 - 3. The complete isolation of the Work area for the duration of the Work so as to prevent asbestos contaminated dust or debris from passing beyond the isolated areas, removal, and disposal of ACM.
 - 4. A lump sum bid for all required services included in Part 3. Unit prices included at the end of this Section shall be part of this bid subject to addition and deductions to the lump sum bid.

1.03 RELATED WORK SPECIFIED ELSEWHERE

- A. Carefully examine all the Contract Documents for requirements which effect the Work of this Section.
- B. Other Specification Sections which directly relate to the Work of this Section include, but are not limited to, the following:
 - 1. DIVISION 01 – GENERAL REQUIREMENTS; including all Sections contained therein.
 - 2. Section 02 41 13 – Selective Demolition
 - 3. DIVISION 03 – CONCRETE; including all Sections contained therein.
 - 4. DIVISION 04 – MASONRY; including all Sections contained therein.
 - 5. DIVISION 05 – METALS; including all Sections contained therein.
 - 6. DIVISION 06 – WOOD AND PLASTICS; including all Sections contained therein.
 - 7. DIVISION 07 – THERMAL AND MOISTURE PROTECTION; including all Sections contained therein.
 - 8. DIVISION 08 – DOORS AND WINDOWS; including all Sections contained therein.
 - 9. DIVISION 09 – FINISHES; including all Sections contained therein.
 - 10. Section 21 00 00 – Fire Suppression
 - 11. Section 22 00 00 – Plumbing
 - 12. Section 23 00 00 – HVAC
 - 13. Section 26 00 00 – Electrical
 - 14. DIVISION 31 – EARTHWORK; including all Sections contained therein.
 - 15. Section 32 12 00 – Site Improvements

1.04 POTENTIAL ASBESTOS HAZARDS

- A. The disturbance or dislocation of ACM may cause asbestos fibers to be released into the building's atmosphere, thereby creating a potential health hazard to Workers, and building occupants. Apprise all Workers, supervisory personnel, subcontractors, and consultants who will be at the job site of the seriousness of the hazard and of proper Work procedures, which must be followed.

- B. Where in the performance of the Work, Workers, supervisory personnel, subcontractors, or consultants may encounter, disturb, or otherwise function in the immediate vicinity of any identified ACM, take appropriate continuous measures as necessary to protect all building occupants from the potential hazard of exposure to airborne asbestos. Such measures shall include the procedures and methods described herein, and compliance with regulations of applicable federal, state, and local agencies.
- C. If the Contractor failed to comply with the requirements of the specifications, the Owner's Representative (Project Monitor) may present a written stop of Work order. The Contractor must immediately and automatically stop all Work until authorized in writing by the Project Monitor to commence Work. All costs related to delays shall be at the Contractor's expense.

1.05 DEFINITIONS

- A. Abatement: Procedures to control fiber release from ACM. Includes encapsulation, enclosure, and removal.
- B. Air Monitoring: The process of measuring the fiber content of a specific volume of air in a stated period of time.
- C. Asbestos: The name given to a number of naturally occurring hydrated mineral silicates that possess a unique crystalline structure are incombustible and are separable into fibers. Asbestos includes Chrysotile, Crocidolite, Amosite, Anthophyllite, and Actinolite.
- D. ACM: Any material containing 1% or more by weight of asbestos of any type or mixture of types. State laws may vary in their definition of asbestos containing material.
- E. Authorized Visitor: The Owner, the Designer, or a representative of any regulatory or other agency having jurisdiction over the project.
- F. Designer: Commonwealth of Massachusetts licensed Designer Ammar Dieb, Universal Environmental Consultants (AD-900326).
- G. Enclosure: All herein specified procedures necessary to complete enclosure of all ACM behind airtight, impermeable, permanent barriers.
- H. Friable Asbestos Material: Material that contains more than one percent asbestos by weight and that can be crumbled, pulverized, or reduced to powder by hand pressure when dry.
- I. Removal: All herein specified procedures necessary to strip all ACM from the designated areas and to dispose of these materials at an acceptable site.
- J. Visible Emissions: Any emissions containing particulate asbestos material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

1.06 CONTRACTOR USE OF PREMISES

- A. Do not unreasonably encumber the site with materials or equipment. Confine stockpiling of materials and location of storage sheds to the areas indicated. If additional storage is necessary, obtain and pay for such storage off site.

1.07 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. Provide a full time Site Supervisor with all appropriate state licenses, experienced in administration and supervision of asbestos abatement projects including Work practices, protective measures for building and personnel, disposal procedures, etc. This person is the Competent Person as required by 29CFR 1926 for the Contractor and is the Contractor's representative responsible for compliance with all applicable federal, state, and local regulations. This person must have completed a course at an EPA Training Center or equivalent certificate course in asbestos abatement procedures, have had a minimum of two years on the job training and meet any additional requirements set forth in 29 CFR 1926 for a Competent Person. The Site Supervisor must be certified by the Commonwealth.

- B. Contractor shall provide proof of such certification to the Designer not less than 10 days (Document Submission Date) prior to commencing any Work. The accredited Supervisor must be at the Work site at all times while Work is in progress.

1.08 SPECIAL REPORTS

- A. Except as otherwise indicated, submit special reports directly to the Project Monitor within one day of occurrence requiring special report, with copies to all others affected by the occurrence.
- B. When an event of unusual and significant nature occurs at the site (examples: failure of negative pressure system, rupture of temporary enclosures, unauthorized entry into work areas), prepare and submit a special report listing date and time of event, chain of events, response by Contractor's personnel, evaluation of results, and similar pertinent information. When such events are known or predictable in advance, advise the Project Monitor in advance at earliest possible date.
- C. Prepare and submit special reports of significant accidents, at the site and anywhere else work is in progress related to this project. Record and document data and actions; comply with industry standards. For this purpose, a significant accident is defined to include events where personal injury is sustained, or property loss of substance is sustained, or where the event posed a significant threat of loss.

1.09 PERMITS AND NOTIFICATIONS

- A. Secure all permits related to asbestos removal, hauling, and disposition and provide timely notification as may be required by federal, state, and local authorities including the Health department. Notify the Regional Office of the United States Environmental Protection Agency (USEPA) in accordance with 40 CFR 61.22 (d)(1) and provide copies of the notification to the Designer and the State Environmental Regulatory Agency 10 Working days prior to commencement of the Work.
- B. No later than the Document Submission Date, notify the local fire and police department, in writing, of proposed asbestos abatement Work. Advise the fire department of the nature of the asbestos abatement Work, and the necessity that all firefighting personnel who may enter the Work site in the case of fire wear self-contained breathing apparatus. Provide one copy of the notices to the Designer prior to commencing the project.
- C. Submit proof to the Designer that all required permits, site location, and arrangements for transport and disposal of ACM have been obtained.

1.10 RESPIRATORY PROGRAM

- A. Establish a respirator program as required by ANSI Z88.2 and 29 CFR 1926.1101 (h), 1926.103, and 1910.134.

1.11 CODES AND REGULATIONS

- A. Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable codes, regulations, and standards have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the contract documents, or as if published copies are bound herewith.
- B. The Contractor shall assume full responsibility and liability for the compliance with all applicable federal, state, and local regulations pertaining to Work practices, hauling, disposal, and protection of Workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records or personnel as required by the applicable federal, state, and local regulations. The Contractor shall hold the Owner, Designer and, Owner's Representative harmless for failure to comply with any applicable Work, hauling, disposal, safety, health, or other regulation on the part of himself, his employees, or his subcontractors.

1.12 REFERENCE STANDARDS

- A. Unless otherwise indicated, all referenced standards shall be the latest edition available at the time of bidding. Any requirements of these specifications shall in no way invalidate the minimum requirements of the referenced standards. Comply with the provisions of the following codes and standards, except as otherwise shown or specified. Where conflict exists, the more stringent requirements shall apply.
- B. U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA) requirements, which govern asbestos abatement work or hauling and disposal of asbestos waste materials.

1.13 SUBMITTALS

- A. Submit all required licenses and certification required under MGLC.149 S 44D and 453 CMR 6.00.
- B. Submit a copy of the written respirator program.
- C. Submit manufacturer's certification that vacuums, ventilation equipment, and other equipment required to contain airborne asbestos fibers conform to ANSI Z9.2. Manufacturer's brochures without certifications are not acceptable.
- D. Submit a detailed plan of the Work procedures to be used in the removal of materials containing asbestos. Such plan shall include location of asbestos control areas, decontamination units, layout of decontamination units, location of access routes to asbestos control areas, interface of trades involved in the construction, sequencing of asbestos related Work, disposal plan, type of wetting agent and asbestos sealer to be used, air monitoring, and a detailed description of the method to be employed in order to control pollution.
- E. Submit a plan for emergency actions.
- F. Submit the name, address, and telephone number of the testing laboratory selected for the personal air monitoring of airborne concentrations of asbestos fibers to meet Federal and State OSHA regulations, including Short Term Exposure Limit sampling (STEL). The laboratory must have satisfactorily completed the NIST Proficiency Analytical Testing (PAT) Program and be licensed by the appropriate state agency. Submit the certification that persons counting the samples have been judged proficient by successful completion of the NIOSH 582 course (or equivalent) or be listed in the AIHA Asbestos Analysts Registry (AAR). All OSHA required air monitoring should be done in accordance with the most current NIOSH 7400 method.
- G. Submit the design of the negative pressure system.
 - 1. Number of negative air machines required and the calculations necessary to determine the number of machines.
 - 2. Description of projected airflow within the Work area and methods required providing adequate airflow in all portions of the Work area.
 - 3. Manufacturers product data and certifications for the machines to be used.
 - 4. Location of machines in the Work area.
 - 5. Location of pressure differential measurement equipment.
 - 6. Manufacturers product data on equipment used to monitor pressure differential.
- H. Submit for approval the form of security and safety log, which will be maintained on the project.
- I. Submit written evidence that the landfill to be used for disposal of asbestos is approved for disposal of asbestos by the Department of Environmental Protection.
- J. Submit proof that training requirements as specified in 29CFR 1926.1101 (k) (3) and by appropriate state agencies has been complied with.
- K. Submit a description of the plans for construction of decontamination enclosure systems and for isolation of the Work areas in compliance with this specification and applicable regulations.

- L. Submit a schedule including Work dates, shift time, number of employees, dates of start and completion of all Work, asbestos abatement, inspection and clearance monitoring, each phase of refinishing, and final inspections). Schedule shall be updated with each partial payment request.
- M. Submit copies of all notifications.
- N. Submit copy of asbestos license.

1.13 REPORTING

- A. Maintain on site a daily log documenting the dates and time of the following items, as well as other significant events:
 - 1. Minutes of meetings: purpose, attendees, and brief discussion
 - 2. Visitations: authorized and unauthorized
 - 3. Personnel: by name, entering and leaving the Work area
 - 4. Special or unusual events
- B. Documentation with confirmation signature of Owner's on-site representative of the following:
 - 1. Inspection of Work area preparation prior to start of removal and daily thereafter.
 - 2. Removal of waste materials from Work area and transport and disposal at approved site.
- C. Provide two bound copies of this log to the Owner's Representative with the application for final payment.
- D. 15% of the Contract will be held until original copies of the Waste Shipment Records are submitted.

1.14 AIR MONITORING

- A. Throughout the entire removal and cleaning operations, air monitoring will be conducted to ensure that the Contractor is complying with the EPA and OSHA regulations and any applicable state and local government regulations. The Owner will provide a Project Monitor (Universal Environmental Consultants) to take air samples at the job site at no cost to the Contractor.
- B. The purpose of the Owner's air monitoring will be to detect faults in the Work area isolation such as:
 - 1. Contamination of the building outside of the Work area with airborne asbestos fibers,
 - 2. Failure of filtration or rupture in the negative pressure system,
 - 3. Contamination of the exterior of the building with airborne asbestos fibers.
 - 4. Should any of the above occur, the Contractor should immediately cease asbestos activities until the fault is corrected. Work shall not recommence until authorized by the Designer.

1.15 AIRBORNE FIBER COUNTS

- A. If any air sample taken outside of the work area exceeds the base line established below, immediately and automatically stop all work. If this air sample was taken inside the building and outside of critical barriers around the work area, immediately erect new critical barriers to isolate the affected area from the balance of the building. Erect Critical Barriers at the next existing structural isolation of the involved space (e.g. wall, ceiling, and floor).
 - 1. Decontaminate the affected area in accordance with the procedures outlined in DECONTAMINATION OF WORK AREA.
 - 2. Respiratory protection shall be worn in affected area.
 - 3. Leave critical barriers in place until completion of work and ensure that the operation of the negative pressure system in the work area results in a flow of air from the balance of the building into the affected area.
 - 4. After certification of visual inspection in the work area, remove critical barriers separating the work area from the affected area. Final air samples will be taken within the entire area as set forth in WORK AREA CLEARANCE.

5. A final inspection after removal of poly shall be completed by the Contractor's Supervisor and the Project Monitor.
- B. The following procedure will be used to resolve any disputes regarding fiber types when a project has been stopped due to excessive airborne fiber counts. "Airborne Fibers" referred to above include all fibers regardless of composition as counted in the NIOSH 7400 Procedure. If work has stopped due to high airborne fiber counts, air samples will be secured in the same area by the Project Monitor for analysis by electron microscopy. "Airborne Fibers" counted in samples analyzed by Scanning or Transmission Electron microscopy shall be only asbestos fibers, but of any diameter and length. Subsequent to analysis by electron microscopy the number of "Airborne Fibers" shall be determined by multiplying the number of fibers, regardless of composition, counted by the NIOSH 7400 procedure by a number equal to asbestos fibers counted divided by all fibers counted in the electron microscopy analysis.
- C. If Electron microscopy is used to arrive at the basis for determining "Airborne Fiber" counts in accordance with the above paragraph, and if the average of airborne asbestos fibers in all samples taken outside the work area exceeds the base line, then the cost of such analysis will be borne by the Contractor, at no additional cost to the Owner. PART 2 – PRODUCTS

2.01 MATERIALS

- A. Plastic Sheet: 9-mil minimum thickness, unless otherwise specified, in sizes to minimize the frequency of joints.
- B. Tape: Capable of sealing joints of adjacent sheets of plastic and for attachment of plastic sheet to finished or unfinished surfaces of dissimilar materials and capable of adhering under dry and wet conditions, including use of amended water. Provide tape, which minimizes damage to surface, finishes.
- C. Cleaning Materials: Use materials recommended by manufacturer of surface to be cleaned. Use cleaning materials only on surfaces recommended by the cleaning material manufacturer.
- D. Impermeable Containers: Suitable to receive and retain any asbestos containing or contaminated materials until disposal at an approved site. Containers must be both air and watertight.
- E. Provide metal or fiber drums with tightly fitting lids and double thickness 6 mil plastic bags capable of being sealed and sized to fit within the drums.

2.02 EQUIPMENT

- A. Supply the required number of asbestos air filtration units to the site in accordance with these specifications. Each unit shall include the following:
 1. Cabinet: Constructed of steel or other durable materials able to withstand damage from rough handling and transportation. Cabinet shall be factory sealed to prevent asbestos containing dust from being released during use, transport, or maintenance. Access to and replacement of all air filters shall be from intake end. Unit shall be mounted on casters or wheels.
 2. Fans: Rate capacity of fan according to useable air moving capacity under actual operating conditions. Use centrifugal type fan.
 3. HEPA Filters: The final filter shall be the HEPA type. The filter media (folded into closely pleated panels) must be completely sealed on all edges with a structurally rigid frame. A continuous rubber gasket shall be located between the filter and the filter housing to form a tight seal.
 4. Each filter shall be individually tested and certified by the manufacturer to have an efficiency of not less than 99.97 percent when challenged with 0.3 um dioctylphthalate (DOP) particles. Testing shall be in accordance with Military Standard Number 282 and Army Instruction Manual I36-300-I75A. Each filter shall bear a UL 586 label to indicate ability to perform under specified conditions. Each filter shall be marked with the name of the manufacturer, serial number, airflow rating, efficiency, and resistance.

5. Prefilters: Prefilters, which protect the final filter by removing the larger particles, are required to prolong the operating life of the HEPA filter. Two stages of prefiltration are required. The first stage prefilter shall be a low efficiency type (e.g., for particles 10 um and larger). The second stage (or intermediate) filter shall have a medium efficiency (e.g., effective for particles down to 5 um). Prefilters and intermediate filters shall be installed either on or in the intake grid of the unit and held in place with special housings or clamps.
 6. Instrumentation: Each unit shall be equipped with a Magnehelic gauge or manometer to measure the pressure drop across filters and indicate when filters have become loaded and need to be changed. A table indicating the useable air handling capacity for various static pressure readings on the Magnehelic gauge shall be affixed near the gauge for reference, or the Magnehelic reading indicating at what point the filters should be changed, noting Cubic Feet per Minute (CFM) air delivery at that point. Provide units equipped with an elapsed time meter to show the total accumulated hours of operation.
 7. Safety and Warning Devices: The unit shall have an electrical (or mechanical) lockout to prevent fan from operating without a HEPA filter. Units shall be equipped with automatic shutdown system to stop fan in the event of a major rupture in the HEPA filter or blocked air discharge. Indicator lights are required to indicate normal operation, too high a pressure drop across the filters (i.e., filter overloading), and too low of a pressure drop (i.e., major rupture in HEPA filter or obstructed discharge).
 8. Electrical Components: Provide electrical components, which are approved by the National Electrical Manufacturers Association (NEMA), and Underwriter's Laboratories (UL). Each unit shall be equipped with overload protection sized for the equipment. The motor, fan, fan housing, and cabinet shall be grounded.
- B. Provide and display danger signs at each location where airborne concentrations of asbestos fibers may be in excess of 0.01 fibers/cc. Post signs at such a distance from such a location so that an employee may read the signs and take necessary protective steps before entering the area marked by the signs. Post signs at all approaches to Work areas or areas containing excessive concentrations of airborne asbestos fibers.
- C. The sign shall also contain a pictorial representation of possible danger or hazard, such as a skull and cross bone, or other suitable warning as approved by the Designer. Sign shall meet the requirements of 29CFR 1926.200.
- D. A sample of the signs to be used shall be submitted to the Designer for approval prior to beginning Work area preparation.

2.03 PERSONNEL DECONTAMINATION UNIT

- A. Prior to any asbestos abatement work, including placement of plastic on walls that will contact or disturb asbestos containing surfaces, or removal of light fixtures or any items on asbestos containing surfaces, construct a Personnel Decontamination Unit consisting of a serial arrangement of connected rooms or spaces, Changing Room, Shower Room, and Equipment Room. Require all persons without exception to pass through this decontamination unit for entry into and exiting from the work area for any purpose. Do not remove equipment or materials through Personnel Decontamination Unit. Provide temporary lighting within decontamination units.
- B. Build suitable framing or use existing rooms, with the Project Monitor's written approval, connected with framed in tunnels if necessary; line with 6 mil plastic; seal with tape at all lap joints in the plastic for all enclosures and decontamination enclosure system rooms. Decontamination units and access tunnels constructed outside must be constructed with tops made of 5/8" plywood or approved equal. In all cases, access between contaminated and uncontaminated rooms or areas shall be through an airlock. In all cases, access between any two rooms within the decontamination enclosure systems shall be through a curtained doorway.
- C. Provide a changing (clean) room for the purpose of changing into protective clothing. Construct using polyethylene sheeting, at least 6-mil in thickness, to provide an airtight seal between the Clean Room and the rest of the building. Locate so that access to work area from Clean Room is through Shower Room. Separate Clean Room from the building by a sheet polyethylene flapped doorway.

- D. Require workers to remove all street clothes in this room, dress in clean disposable coveralls, and don respiratory protection equipment. Do not allow asbestos contaminated items to enter this room. Require workers to enter this room either from outside the structure dressed in street clothes, or naked from the showers.
 - E. An existing room may be utilized as the changing room if it is suitably located and of a configuration whereby workmen may enter the Clean Room directly from the Shower Room. Protect all surfaces of room with sheet plastic. Authorization for this must be obtained from the Project Monitor in writing prior to start of construction.
 - 1. Maintain floor of changing room dry and clean at all times. Do not allow overflow water from shower to wet floor in Changing Room.
 - 2. Damp-wipe all surfaces twice after each shift change with a disinfectant solution.
 - 3. Provide a continuously adequate supply of disposable bath towels.
 - 4. Provide posted information for all emergency phone numbers and procedures.
 - 5. Provide one storage locker per employee.
 - 6. Provide all other components indicated on the contract drawings.
 - F. Provide a completely watertight operational shower to be used for transit by cleanly dressed workers heading for the work area from the changing room, or for showering by workers headed out of the Work Area after undressing in the Equipment Room.
 - G. Construct room by providing a shower pan and 2 shower walls in a configuration that will cause water running down walls to drip into pan. Install a freely draining wooden floor in shower pan at elevation of top of pan.
 - 1. Separate this room from the rest of the building with airtight walls fabricated of 6-mil polyethylene.
 - 2. Separate this room from the Clean and Equipment Rooms with airtight walls fabricated of 6-mil polyethylene.
 - 3. Provide showerhead and controls.
 - 4. Provide temporary extensions of existing hot and cold water and drainage, as necessary for a complete and operable shower.
 - 5. Provide a soap dish and a continuously adequate supply of soap and maintain in sanitary condition.
 - 6. Arrange so that water from showering does not splash into the Clean or Equipment Rooms.
 - 7. Arrange water shut off and drain pump operation controls so that a single individual can shower without assistance from either inside or outside of the work area.
 - 8. Provide flexible hose shower head Pump wastewater to drain and provide 20 micron and 5-micron wastewater filters in line to drain or waste water storage. Locate filter hose inside shower unit so that water lost during filter changes is caught by shower pan and pumped to exterior filtering system.
 - H. Provide equipment room for contaminated area; work equipment; footwear and additional contaminated work clothing are to be left here. This is a change and transit area for workers. Separate this room from the work area by a 6-mil polyethylene flap doorway.
 - 1. Separate this room from the rest of the building with airtight walls fabricated of 6-mil polyethylene.
 - 2. Separate this room from the Shower Room and work area with airtight walls fabricated of 6-mil polyethylene.
 - I. Separate work area from the Equipment Room by polyethylene barriers. If the airborne asbestos level in the work area is expected to be high, add an intermediate cleaning space between the Equipment room and the work area. Damp- wipe clean all surfaces after each shift change.
- 2.04 EQUIPMENT DECONTAMINATION UNITS
- A. In areas with only one access, it may be impossible to utilize a separate Equipment Decontaminate Unit. In this case, all equipment and waste materials will exit through the Personnel Decontamination Chambers.

- B. When two accesses to the work area are available, provide an Equipment Decontamination Unit consisting of a serial arrangement of rooms, Clean Room, Holding Room, Wash Room for removal of equipment and material from work area. Do not allow personnel to enter or exit work area through Equipment Decontamination Unit.
- C. Provide an enclosed shower unit located in work area just outside Wash Room as an equipment, bag, and container cleaning station.
- D. Provide Wash Room for cleaning of bagged or contained asbestos containing waste materials passed from the work area. Construct Wash Room of 2 by 4-inch (minimum) wood framing and polyethylene sheeting, at least 6-mil in thickness and located so that packaged materials, after being wiped clean can be passed to the Holding Room. Separate this room from the work area by flaps of 6 mil polyethylene sheeting, or rigid self-closing doors.
- E. Provide Holding Room as a drop location for bagged ACM passed from the Wash Room. Construct Holding Room of 2 by 4-inch (minimum) wood framing and polyethylene sheeting, at least 6-mil in thickness and located so that bagged materials cannot be passed from the Wash Room through the Holding Room to the Clean Room.
- F. Provide Clean Room to isolate the Holding Room from the building exterior. Construct Clean Room of 2 by 4-inch (minimum) wood framing and polyethylene sheeting, at least 6-mil in thickness and locate to provide access to the Holding Room from the building exterior. Separate this room from the exterior by flaps of 6 mil polyethylene sheeting, or rigid self-closing doors.

2.05 PERSONNEL PROTECTION

- A. Prior to commencement of work, the workers shall be instructed in, and shall be knowledgeable of, the hazards of asbestos exposure; use and fitting of respirators; protective dress; use of showers; entry and exit from work areas, and all aspects of work procedures and protective measures.
- B. It is the responsibility of the Contractor to assure that all personnel entering the work area wear approved respirator and protective clothing
- C. All asbestos abatement workers shall receive training and shall be accredited as required by 40 CFR 763.90(g). Training and accreditation shall be in accordance with 40 CFR 763, Appendix C to Subpart E. Training shall also be provided to meet the requirements of OSHA Regulations contained in 29 CFR 1926.
- D. Prior to the start of work, the Contractor shall provide medical examinations for all employees in accordance with 29CFR 1926.1101 (m). All employees hired by the Contractor after start of work shall have medical examinations in accordance with this paragraph before being put to work.
- E. Maintain complete and accurate records of employee's medical examinations, during employment, for a period of 30 years after termination of employment and make records of the required medical examinations available for inspection and copying to: The Assistant Secretary of Labor for Occupational Safety and Health, the Director of The National Institute for Occupation Safety and Health (NIOSH), authorized representatives of either of them, and an employee's physician upon the request of the employee or former employee.
- F. Provide personnel exposed to airborne concentrations of asbestos fibers with fire retardant disposable protective whole-body clothing, head covering, gloves, and foot coverings. Provide gloves to protect hands. Make sleeves secure at the wrists and make foot coverings secure at the ankles by the use of tape. Contractor shall require and monitor the use of complete protective clothing. A competent person designated by the contractor in accordance with 29CFR 1926.1101 shall periodically examine protective clothing worn by employees in the work area for rips or tears. When rips or tears are detected, they shall be immediately mended or replaced.
- G. Provide goggles to personnel engaged in asbestos operations when the use of a full-face respirator is not required.
- H. Provide authorized visitors with suitable protective clothing, headgear, eye protection and footwear, whenever they are required to enter the work area, to a maximum of 3 changes for 3 visitors per day. One of the sets of protective clothing must be available for full time use by the Project Monitors.

- I. Provide all persons with personally issued and marked respiratory equipment approved by NIOSH and OSHA. The appropriate respiratory protection will be selected according to the most recent Massachusetts regulations.
- J. Once all visible asbestos material has been removed during decontamination, cartridge type respirators will be allowed during the final cleanup, provided the measured airborne concentrations do not exceed 0.1 fibers per cubic centimeter. Where respirators with disposable filters are employed, provide sufficient filters for replacement as required by the worker or applicable regulation.
- K. If the permissible respirators fail to provide sufficient protection against volatile emitted by any sealant used, the services of a qualified Project Monitor will be procured, at the Contractor's expense, to determine proper respiratory protection. The Owner will not be liable for the cost of increased respiratory protection.
- L. Select respirators from those approved by the Mine Safety and Health Administration (MSHA), Department of Labor, or the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services. All personal wearing negative pressure respirators shall have respirator fit tests within the last six months and signed statements shall be available.

PART 3 – EXECUTION

3.01 SCOPE OF WORK

- A. The asbestos abatement project will be performed in one phase. It is the asbestos contractor's responsibility to comply with the phasing schedule. Commencement of asbestos abatement in each phase may change. Changing, decreasing, and increasing of phases, size, location, and scope of Work shall not constitute compensation by the Owner or any of his representatives. The Designer shall determine hours of Work. The Contractor will be required to perform Work in multiple areas at the same time at no additional cost to the Owner.

<u>Location</u>	<u>Type of Material</u>	<u>Estimated Quantity</u>
Interior	Flooring Materials/Mastic	Refer to Drawings
	Pipe and Hard Joint Insulation	Refer to Drawings
Exterior	Caulking	Refer to Drawings

Specific Notes:

- 1. It is the Asbestos Contractor's responsibility to inspect the site and confirm condition and quantities prior to the submission of his/her bid package. It is also the Asbestos Contractor's responsibility to review the demolition drawings, notes, and phasing configurations. The contractor must include in his/her bid the entire scope of work listed above. The Contractor must agree and accept all unit prices listed at the end of this section. Means and methods of removal will be at the discretion of the contractor with prior approval. Perform all work at no additional cost to the owner.
- 2. Remove and dispose as ACM of flooring materials listed above, including but not limited to vinyl floor tiles, carpet, resilient baseboard, stair treads, transition strips, leveling compound, leveler, and mastic.
- 3. Remove and dispose as ACM of pipe and hard joint insulation that might be disturbed.
- 4. Remove and properly dispose of caulking. Caulking was found to contain asbestos and assumed to contain >1ppm of PCB's.

3.02 JOB CONDITIONS

- A. Do not commence asbestos abatement Work until:
 - 1. Arrangements have been made for disposal of waste at an acceptable site. Submittal must be made no later than the Document Submission Date.

2. Arrangements have been made for containing and disposal of wastewater resulting from wet stripping or filtering through a 5-micron filter.
 3. Work areas and decontamination enclosure systems and parts of the building required to remain in use are effectively segregated.
 4. Tools, equipment, and material waste receptors are on hand.
 5. Arrangements have been made for building security.
 6. All other preparatory steps have been taken and applicable notices posted, and permits obtained.
 7. Pre-clean all areas prior to abatement.
 8. Clean all routes used to transport ACM.
- B. The contractor is required to set up and test the emergency generator in the presence of the Project Monitor.
- C. All materials resulting from demolition Work, except as specified otherwise shall become the property of the Contractor and shall be disposed of as specified herein.

3.03 INSPECTION AND PREPARATION

- A. Examine the areas and conditions under which asbestos will be abated and notify the Designer in writing of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Before any Work commences, post danger signs in and around the Work Area to comply with 29-CFR 1926.1101 (k)(l) as required by federal and state regulations, and as specified herein.
- C. Pre-clean each area prior to setting up containment and remove all visible ACBM debris.
- D. Clean all routes used to transport the ACM bags from the abated areas.
- E. Asbestos abatement activities shall be performed using the glovebag method, mini-containment or full containment depending on each scope of work. Type of enclosures will be determined by the contractor and the on-site project monitor at no additional cost to the owner.

3.04 WORK PROCEDURE

- A. Perform asbestos related Work in accordance with 29CFR 1926.1101 and as specified herein. Use wet removal procedures. Personnel shall wear and utilize protective clothing and equipment as specified herein. Eating, smoking, or drinking shall not be permitted in the asbestos control area. Removal of lights and other objects in contact with asbestos containing materials is considered as asbestos abatement activities. Thus, individuals involved in such activities must meet all requirements of federal and state regulations for asbestos abatement Workers, including training and medical examinations. Provide and post, in the Equipment Room and the Clean Room, the decontamination and Work procedures to be followed by Workers, as described hereinafter.
- B. Each Worker and authorized visitor shall, upon entering the job site, remove street clothes in the Clean Change Room and put on a respirator and clean protective clothing before entering the equipment room or the Work area. All Workers shall remove gross contamination before leaving the Work area. All clothing (coveralls, head covers, boots, etc.) shall be removed and properly disposed of before leaving equipment room. Naked, with the exception of their respirators, the Workers shall proceed to the Shower Room. Under the shower, respirators will be removed and cleaned. Cleaned respirators will be placed in suitable clean plastic bags and carried by employees to Clean Room. Soap, towels, etc., shall be furnished by the Contractor. The Contractor shall maintain proper sanitary conditions. The contractor's designated competent person shall insure that these practices are being adhered to.

- C. Following showering and drying off, each Worker and authorized visitor shall dispose of towels as contaminated waste and proceed directly to the Clean Change Room and dress in clean clothes at the end of each day's Work, or before eating, smoking, or drinking. Before re-entering the Work area from the Clean Change Room, each Worker and authorized visitor shall put on the applicable respirator and shall dress in clean protective clothing. Contaminated Work footwear shall be stored in the equipment room when not in use in the Work area. Upon completion of asbestos abatement, dispose of footwear as contaminated waste.
- D. Contaminated Work footwear shall be stored in the equipment room when not in use in the Work area. Upon completion of asbestos abatement, dispose of footwear as contaminated waste or double bag for use at next site.
- E. Workers removing waste containers from the Equipment Decontamination Enclosure shall enter the holding area from outside wearing a respirator and dressed in clean coveralls. No Worker shall use this system as a means to leave or enter the washroom or the Work area.
- F. Workers shall not eat, drink, smoke, or chew gum or tobacco in asbestos abatement Work areas.
- G. Workers shall be fully protected with respirators and protective clothing immediately prior to the first disturbance of asbestos containing or contaminated materials and until final cleanup is completed. This includes the removal of any equipment in contact with ACM such as lights, HVAC grills, etc.

3.05 PREPARATION OF THE WORK AREA

- A. Seal off the Work area by sealing large openings such as open doors, elevator doors, and passageways with a critical barrier. The critical barrier shall constitute the outermost boundary of the asbestos abatement project Work area. Plastic sheeting on open framing is not a suitable critical barrier. Critical barriers may be erected of a suitable solid construction material such as plywood, sheetrock, gypsum board, or other related materials.
- B. Prior to any asbestos abatement clean the areas using HEPA filtered vacuum equipment and wet cleaning methods as appropriate. Methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters will not be permitted. Dispose of all cloths, which are used for cleaning as contaminated waste.
- C. Shut down electric power. Provide temporary power and lighting and ensure safe installation of temporary power sources and equipment per applicable electrical code requirements. Provide 24-volt safety lighting and provide ground-fault interrupter circuits as power source for lights and electrical equipment.
- D. Seal off all openings, including but not limited to corridors, doorways, windows, skylights, ducts, grills, diffusers, and any other penetrations of the Work areas, with 6-mil plastic sheeting and sealed with tape.
- E. Maintain emergency and fire exits from the Work areas, or establish alternative exits satisfactory to the local fire officials. Coordinate project with local fire and police departments, and Owner's Representative.
- F. Pre-clean non-removable furniture, book shelving, equipment, heat fans, fire alarms, pipes, ductwork, wires and conduits, lockers, skylights, speakers, and other fixed objects within the proposed Work areas, using HEPA filtered vacuum equipment and wet cleaning methods as appropriate prior to abatement activities, and enclose with minimum 6 mil plastic sheeting sealed with tape.

3.06 MAINTENANCE OF ENCLOSURE SYSTEMS

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

- B. Use smoke methods to test effectiveness of barriers when directed by the Project Monitor.

3.07 CONTROL ACCESS

- A. Permit access to the work area only through the Decontamination Unit. All other means of access shall be closed off and sealed and warning signs displayed on the clean side of the sealed access.
- B. Large openings such as open doorways and passageways shall be sealed as a critical barrier. The critical barrier shall constitute the outmost boundary of the asbestos abatement project work area.
- C. Where the area adjacent to the work area is accessible to the public, construct a solid barrier on the public side of the sheeting to protect the sheeting. Construct barrier with nominal 2 by 4-inch (minimum) wood or metal studs 16 inches on centers, securely anchored to prevent movement, covered with minimum 1/4-inch-thick hardboard, 1/2-inch gypsum wall board, or 1/2-inch plywood.
- D. Plastic sheeting on open framing is not a suitable critical barrier. All cracks, seams, and openings in critical barriers shall be caulked or otherwise sealed, so as to prevent the movement of asbestos fibers out of the work area.

3.08 ISOLATION OF WORK AREA

- A. Completely separate the work area from other portions of the building, and the outside by sheet plastic barriers at least 6 mil in thickness, or by sealing with duct tape.
- B. Individually seal all ventilation openings (supply and exhaust), lighting fixtures, clocks, doorways, windows, convectors and speakers, and other openings into the work area with duct tape alone or with polyethylene sheeting at least 6-mil in thickness, taped securely in place with duct tape. Maintain seal until all work including work area decontamination is completed. All lighting fixtures shall have had power shut off.

3.09 NEGATIVE PRESSURE

- A. Establish negative pressure in the work area by installation of High Efficiency Particulate Air (HEPA) filter air-purifying devices. Comply with ANSI Z9.2, Local Exhaust Ventilation Requirements. Maintain system in operation 24 hours per day until decontamination of the work area is completed and area has been certified clean by air monitoring tests and visual inspections. Discharge of asbestos fibers to the outside of the building will not be permitted.
- B. Size negative air pressure system(s) to provide a minimum of one air change every 15 minutes for the area under negative pressure. Locate the exhaust unit(s) so that makeup air enters the work area primarily through the decontamination unit and traverses the work area as much as possible. The intent is to provide the air change specified in each work area (room), not just the specified negative pressure. Place the end of the unit or its exhaust duct through an opening in the plastic barrier or wall covering. Seal the plastic around the unit or duct with tape. Wherever possible, the units shall exhaust to the outside of the building. Whenever impossible to duct outside, the HEPA units will be run in tandem.

3.10 REMOVAL OF ASBESTOS CONTAINING MATERIALS

- A. Thoroughly wet ACM to be removed prior to stripping and/or tooling to reduce fiber dispersal into the air. Accomplish wetting by a fine spray (mist) of amended water or removal Encapsulant. Saturate material sufficiently to wet to the substrate without causing excess dripping. Allow time for water or removal Encapsulant to penetrate material thoroughly. If a removal Encapsulant is used, apply in strict accordance with manufacturer's written instructions.
- B. Mist work area continuously with amended water whenever necessary to reduce airborne fiber levels.

- C. Remove saturated ACM in small sections from all areas. Do not allow material to dry out. As it is removed, simultaneously pack material while still wet into disposal bags. Twist neck of bags bend over and seal with minimum three wraps of duct tape. Clean outside and move to wash down station adjacent to material decontamination unit.

3.11 DECONTAMINATION OF WORK AREA

- A. Maintain premises and public properties free from accumulation of waste, debris, and rubbish, caused by operations. Remove visible accumulations of asbestos material and debris. Wet clean all surfaces within the Work area.
- B. Remove the plastic sheets from walls and floors only. Take proper care in folding up plastic sheeting to minimize dispersal of residual asbestos containing debris.
- C. Leave the windows, doors, and HVAC vents sealed. Maintain HEPA filtered negative air pressure systems, air filtration and decontamination enclosure systems in service.
- D. Remove all debris from floor of Work area. This includes all trash, scraps of lumber, pipes, etc. and all visible asbestos debris. The asbestos debris is primarily deteriorated pipe insulation that has fallen to the ground. Dispose of all debris removed as asbestos contaminated waste. HEPA vacuum the entire floor.
- E. In areas that have dirt floors, remove at least one inch of dirt or until visually clean.
- F. Clean all surfaces in the Work area and any other contaminated areas with water and with HEPA filtered vacuum equipment. After cleaning the Work area, wait 24 hours to allow for settlement of dust, and again wet clean and clean with HEPA filtered vacuum equipment all surfaces in the Work area. After completion of the second cleaning operation, perform a complete visual inspection of the Work area to ensure that the Work area is free of visible asbestos debris. The negative pressure system may be shut down only after clean air has been achieved.
- G. Include sealed drums and all equipment used in the Work area in the cleanup and remove from Work areas, via the equipment decontamination enclosure system, at an appropriate time in the clean sequence.
- H. Conduct cleaning and disposal operations to comply with applicable ordinances and antipollution laws. Do not burn or bury rubbish and waste materials on job site. Do not dispose of volatile wastes in storm or sanitary drains. Do not dispose of wastes into streams or waterways.
- I. Store volatile wastes in covered metal containers during Work hours and remove from premises at end of Workday. Prevent accumulation of wastes, which create hazardous conditions. Provide adequate ventilation during use of volatile or noxious substances.
- J. If the Project Monitor, within 24 hours after the second cleaning, finds visible accumulations of asbestos debris in the Work area, repeat the wet cleaning until the Work area is in compliance, at no additional expense to the Owner.
- K. Remove the first layer of plastic sheet from walls and floors only. Take proper care in folding up plastic sheeting to minimize dispersal of residual asbestos containing debris.
- L. Leave the windows, doors, and HVAC vents sealed. Maintain HEPA filtered negative air pressure systems, air filtration and decontamination enclosure systems in service.
- M. Following the final visual inspection by the Project Monitor, after the removal of ACM and decontamination of Work areas, and while space enclosures systems remain in place, seal all surfaces from which ACM has been removed to assure immobilization of any remaining fibers. Use a colored sealant so that complete coverage may be ensured by a visible inspection by the Project Monitor to verify that asbestos-containing material has been adequately removed. Apply sealer in accordance with manufacturer's recommendations using airless spray equipment.

- N. Clearance air test samples will be taken by Project Monitor 24 hours after the encapsulation. Aggressive air sampling will be conducted using 20" rotating fans, leaf blowers, or other devices as selected by the Project Monitor. If the Work area is found visually clean and encapsulated, clearance air samples will be made to determine fiber concentrations. Analysis will be made using Phase Contrast Microscopy.
- 3.12 WORK AREA CLEARANCE
- A. The Work is complete when the Work area is visually clean and airborne fiber levels have been reduced to the level specified below. When this has occurred, the Asbestos Contractor will notify the Project Monitor that the area is ready for clearance.
- B. The number and volume of air samples taken, and analytical methods used by the Project Monitor will be in accordance with the schedule given below. Sample volumes given may vary depending upon the analytical instruments used.
- C. Phase Contrast Microscopy (PCM) will be used for all testing.
- D. Costs for the initial testing required for clearance will be paid by the Owner. Should the initial testing fail, the Asbestos Contractor will reimburse the Designer for the cost of all additional testing based on \$90.00 per hour for project monitor and \$30.00 per PCM sample and \$150.00 per TEM air sample.
- 3.13 DISPOSAL OF ASBESTOS CONTAINING MATERIAL AND ASBESTOS CONTAMINATED WASTE
- A. As the Work progresses, and to prevent exceeding available storage capacity on site, remove sealed and labeled containers of asbestos waste and dispose of such containers at an authorized disposal site in accordance with the requirements of disposal authority.
- B. Comply with 29 CFR 1926.1101.
- C. Seal all asbestos and asbestos contaminated waste material in rigid fiber or metal drums lined with double thickness 6mil, sealable plastic bags. Label the drums and the plastic bags; transport and dispose of all in accordance with the applicable OSHA and EPA regulations. At the conclusion of the job, place all polyethylene material, tape, cleaning material and clothing in the plastic lined drum. Seal, correctly label and dispose of as asbestos waste material.
- D. Transport the sealed drums to the approved waste disposal site. The sealed plastic bags may be removed from the drums and placed into the burial site unless the bags have been broken or damaged. Leave damaged bags in the drums and bury the entire contaminated drum. Uncontaminated drums may be recycled. The sealed bags or drums must be covered the day of disposal. Contractor shall obtain trip tickets at the landfill to document disposal of asbestos containing materials. A form must be signed, not initialed, by all parties. Copies of all trip tickets shall be submitted to the Designer.
- E. If a rental vehicle is used to transport asbestos waste, Contractor shall provide to the vehicle's owner a written statement as to the intended use of the vehicle. A copy of such notice, signed by the vehicle owner, shall be provided to the Designer prior to transporting materials in the vehicle. Two layers of 6-mil plastic sheet shall be placed on the floor and walls of the rental vehicle prior to loading any containers of asbestos waste.
- 3.14 DISPOSAL OF NON-CONTAMINATED WASTE
- A. Remove from the site all non-contaminated debris and rubbish resulting from abatement operations. Transport materials removed from demolished areas and dispose of offsite in a legal manner.
- 3.15 FINAL CLEAN UP
- A. Employ experienced workers or professional cleaners for final cleaning. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials, from exposed to view interior and exterior finished surfaces. Polish surfaces so designated.

END OF SECTION



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EMSL Order: 032302639

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

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Phone: (413) 781-0070
Fax: (413) 781-3734
Received Date: 03/21/2023 10:19 AM
Analysis Date: 03/22/2023
Collected Date: 02/23/2023

Project: 183/ Worcester Fire Department/ Southbridge Street, Worcester, MA

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
01A 032302639-0001	District Chief bunk room - Green 9"x9" floor tile	Green Non-Fibrous Homogeneous		20% Quartz 73.0% Non-fibrous (Other)	7% Chrysotile
01B 032302639-0002	District Chief bunk room - Green 9"x9" floor tile				Positive Stop (Not Analyzed)
02A 032302639-0003	District Chief bunk room - Green 9"x9" floor tile mastic	Black Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	<1% Chrysotile
Result includes a small amount of inseparable attached material					
02B 032302639-0004	District Chief bunk room - Green 9"x9" floor tile mastic	Black/Green Non-Fibrous Homogeneous	1% Cellulose	3% Quartz 2% Ca Carbonate 94.0% Non-fibrous (Other)	<1% Chrysotile
03A-Caulk 032302639-0005	Garage bay 2 - Exterior door casing caulking	Clear Non-Fibrous Homogeneous		8% Quartz 20% Ca Carbonate 72.0% Non-fibrous (Other)	None Detected
03A-Joint Compound 032302639-0005A	Garage bay 2 - Exterior door casing caulking	Gray/Tan/White Non-Fibrous Homogeneous		60% Ca Carbonate 37.0% Non-fibrous (Other)	3% Chrysotile
03B-Caulk 032302639-0006	Garage bay 2 - Exterior door casing caulking	Clear Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	None Detected
03B-Joint Compound 032302639-0006A	Garage bay 2 - Exterior door casing caulking				Positive Stop (Not Analyzed)
04A 032302639-0007	District chief bunk room - black 4" vinyl base	Black Non-Fibrous Homogeneous		3% Quartz 12% Ca Carbonate 85.0% Non-fibrous (Other)	None Detected

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

Samples analyzed by EMSL Analytical, Inc. Long Island City, NY AIHA LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NJ Y022, CT PH-0170, MA AA000170

Initial report from: 03/22/2023 18:27:43



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Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
04B 032302639-0008	District chief bunk room - black 4" vinyl base	Black Non-Fibrous Homogeneous		18% Ca Carbonate 82.0% Non-fibrous (Other)	None Detected
05A 032302639-0009	District chief bunk room - black 4" vinyl base adhesive	Tan Non-Fibrous Homogeneous		98.0% Non-fibrous (Other)	2% Chrysotile
05B 032302639-0010	District chief bunk room - black 4" vinyl base adhesive				Positive Stop (Not Analyzed)
06A 032302639-0011	Garage bay 2 - concrete plank ceiling deck	Gray Non-Fibrous Homogeneous		28% Quartz 40% Ca Carbonate 6% Mica 26.0% Non-fibrous (Other)	None Detected
06B 032302639-0012	Garage bay 2 - concrete plank ceiling deck	Gray/Tan Non-Fibrous Heterogeneous		35% Quartz 50% Ca Carbonate 1% Mica 14.0% Non-fibrous (Other)	None Detected
07A 032302639-0013	Exterior of garage bays - sandstone mortar	Tan Non-Fibrous Homogeneous		35% Quartz 40% Ca Carbonate 6% Mica 19.0% Non-fibrous (Other)	None Detected
07B 032302639-0014	Exterior of garage bays - sandstone mortar	Gray/Tan Non-Fibrous Heterogeneous		30% Quartz 45% Ca Carbonate 3% Mica 22.0% Non-fibrous (Other)	None Detected
08A 032302639-0015	Garage bay 2 - CMU wall mortar	Gray Non-Fibrous Homogeneous		20% Quartz 44% Ca Carbonate 8% Mica 28.0% Non-fibrous (Other)	None Detected
08B 032302639-0016	Garage bay 2 - CMU wall mortar	Tan Non-Fibrous Homogeneous		23% Quartz 40% Ca Carbonate 6% Mica 31.0% Non-fibrous (Other)	None Detected

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

Samples analyzed by EMSL Analytical, Inc. Long Island City, NY AIHA LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NJ NY022, CT PH-0170, MA AA000170

Initial report from: 03/22/2023 18:27:43



EMSL Analytical, Inc.

10-39 45th Road Long Island City, NY 11101

Tel/Fax: (212) 290-0051 / (212) 290-0058

<http://www.EMSL.com> / manhattanlab@emsl.com

EMSL Order: 032302639

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Eric Kubic
Atlas Technical
73 William Franks Drive
West Springfield, MA 01089

Phone: (413) 781-0070
Fax: (413) 781-3734
Received Date: 03/21/2023 10:19 AM
Analysis Date: 03/22/2023
Collected Date: 02/23/2023

Project: 183/ Worcester Fire Department/ Southbridge Street, Worcester, MA

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
08C 032302639-0017	Main bunk room - CMU wall mortar	Gray/Tan Non-Fibrous Heterogeneous		40% Quartz 35% Ca Carbonate 4% Mica 21.0% Non-fibrous (Other)	None Detected
09A 032302639-0018	Exterior - above garage bay 2 - Brick wall mortar	Tan Non-Fibrous Homogeneous		25% Quartz 38% Ca Carbonate 7% Mica 30.0% Non-fibrous (Other)	None Detected
09B 032302639-0019	Exterior - west side of building - Brick wall mortar	Tan Non-Fibrous Homogeneous		20% Quartz 38% Ca Carbonate 6% Mica 36.0% Non-fibrous (Other)	None Detected
09C 032302639-0020	Exterior - south side of building - Brick wall mortar	Gray/Tan Non-Fibrous Heterogeneous		60% Quartz 20% Ca Carbonate 7% Mica 13.0% Non-fibrous (Other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Long Island City, NY AIHA LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NJ Y022, CT PH-0170, MA AA000170

Initial report from: 03/22/2023 18:27:43



EMSL Analytical, Inc.

10-39 45th Road Long Island City, NY 11101

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EMSL Order: 032302639

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Eric Kubic
Atlas Technical
73 William Franks Drive
West Springfield, MA 01089

Phone: (413) 781-0070

Fax: (413) 781-3734

Received Date: 03/21/2023 10:19 AM

Analysis Date: 03/22/2023

Collected Date: 02/23/2023

Project: 183/ Worcester Fire Department/ Southbridge Street, Worcester, MA

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk materials via EPA/600 (0513) Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

Report Comments:

Sample Receipt Date: 03/21/2023

Sample Receipt Time: 10:19 AM

Analysis Completed Date: 03/22/2023

Analysis Completed Time: 3:06 PM

Analyst(s):

Jessica Macdonald PLM (7)

Meah Cross Sevilla PLM (12)

Samples Reviewed and approved by:

Charles Johnson, Asbestos Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Long Island City, NY AIHA LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NJ NY022, CT PH-0170, MA AA000170

Initial report from: 03/22/2023 18:27:43

Asbestos Bulk Sample Chain-of-Custody

Page 1 of 1



Project Address: Southbridge Street, Worcester, MA

Project Manager: Chris Godfrey

Results To: Eric.kubic@oneatlas.com

No

Special Instructions or Comments:

EMSL MANHATTAN LAB
RECEIVED
MAR 21 AM 10:19

Date: 3/2/23

73 William Franks Drive, West Springfield, MA 01089

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 786-5974

<http://www.EMSL.com>cinnaminsonleadlab@emsl.com

EMSL Order: 202302646
CustomerID: ATC62
CustomerPO: 11-81-0030
ProjectID:

Attn: **Eric Kubic**
Atlas Technical
73 William Franks Drive
West Springfield, MA 01089

Phone: (413) 781-0070
Fax: (413) 781-3734
Received: 3/21/2023 11:00 AM
Collected: 2/23/2023

Project: **Worcester Fire Dept. Southbridge St., Worcester, MA**

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>Lead Concentration</i>
FDPB-01	202302646-0001	2/23/2023	3/22/2023	0.2385 g	0.013 % wt
Site: Gray Concrete Ceiling Plank Paint - Garage Bay 2					
FDPB-02	202302646-0002	2/23/2023	3/22/2023	0.2807 g	0.013 % wt
Site: Gray Wood 2" X 6" Paint - Garage Bay 2					
FDPB-03	202302646-0003	2/23/2023	3/22/2023	0.2626 g	0.014 % wt
Site: Gray CMU Wall Paint - Garage Bay 2					
FDPB-04	202302646-0004	2/23/2023	3/22/2023	0.2811 g	10 % wt
Site: Yellow Steel Lintel Paint - Garage Bay 2					
FDPB-05	202302646-0005	2/23/2023	3/22/2023	0.2645 g	0.032 % wt
Site: Brown CMU Wall Paint - Bunkroom					

Owen McKenna, Lead Laboratory Director
or other approved signatory

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* Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, AIHA LAP, LLC-ELLAP Accredited #100194, A2LA Accredited - Certificate #2845.01

Initial report from 03/22/2023 17:56:37

Page (of)

Project Address: Southbridge Street, Worcester, MA

Project Manager: Christopher Godfrey

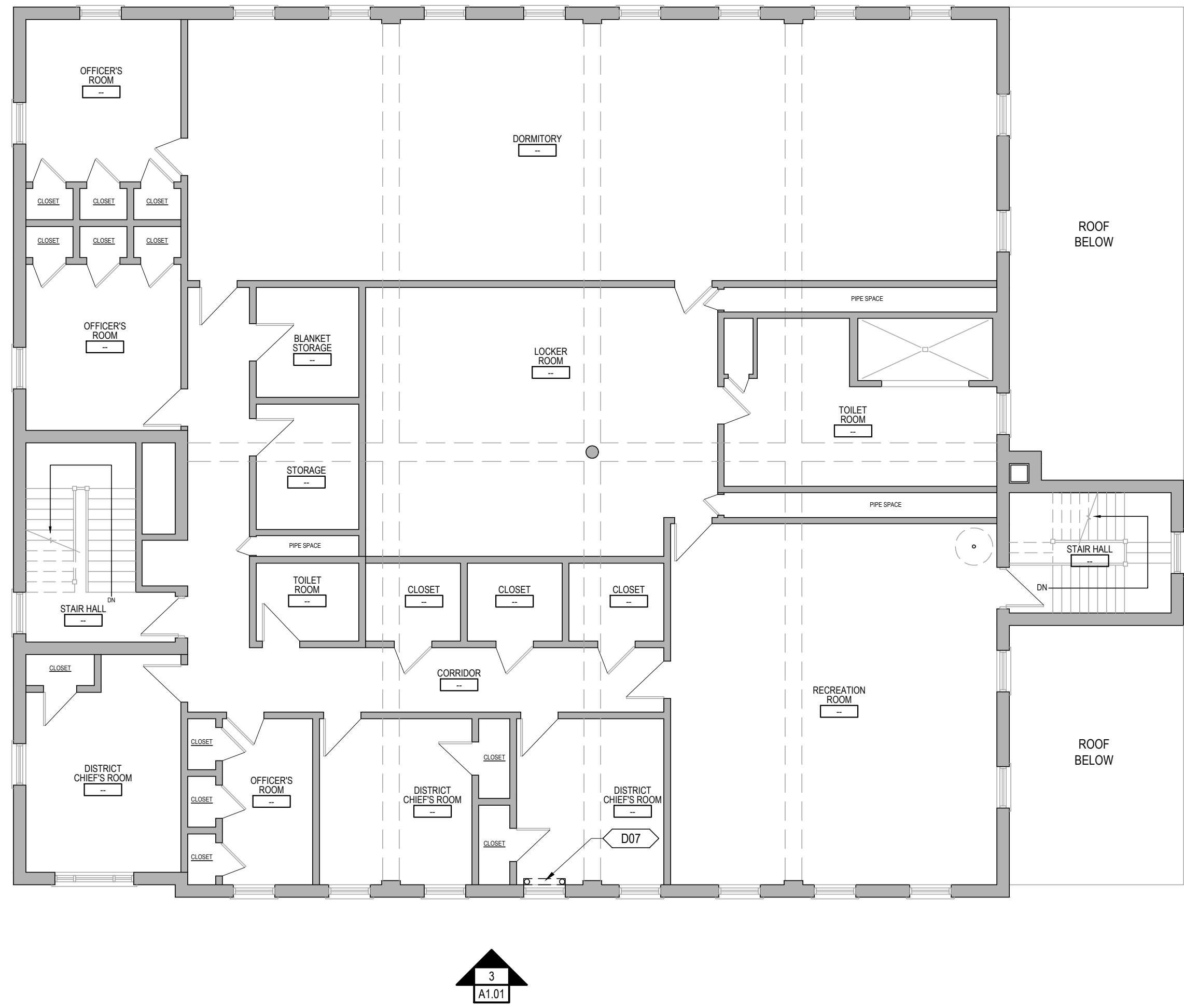
Results To: Eric.kubic@oneatlas.com

Turnaround Time: 48 Hour Date: 2/23/2023

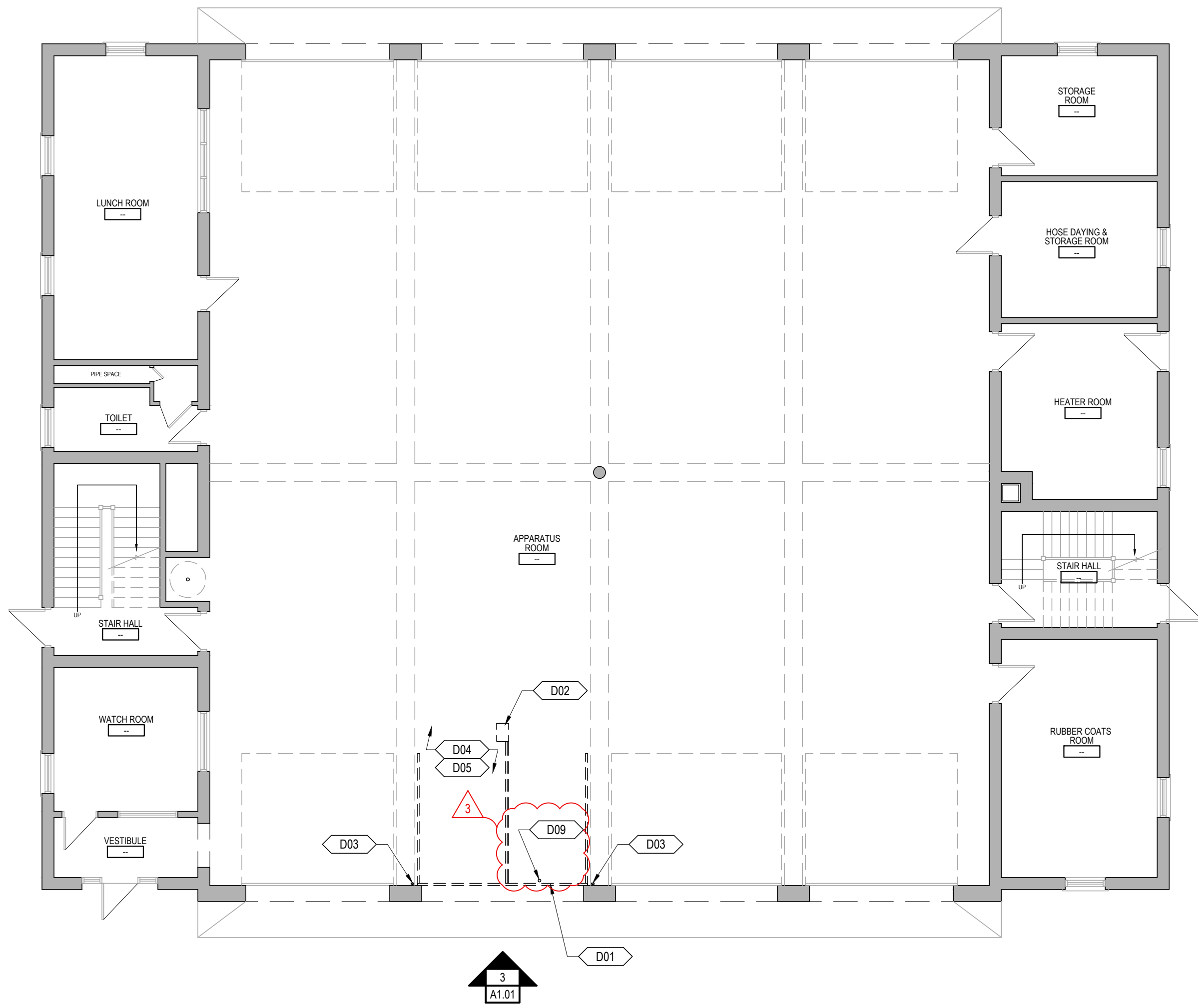
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Date: 3-21-23

Date: 11/17



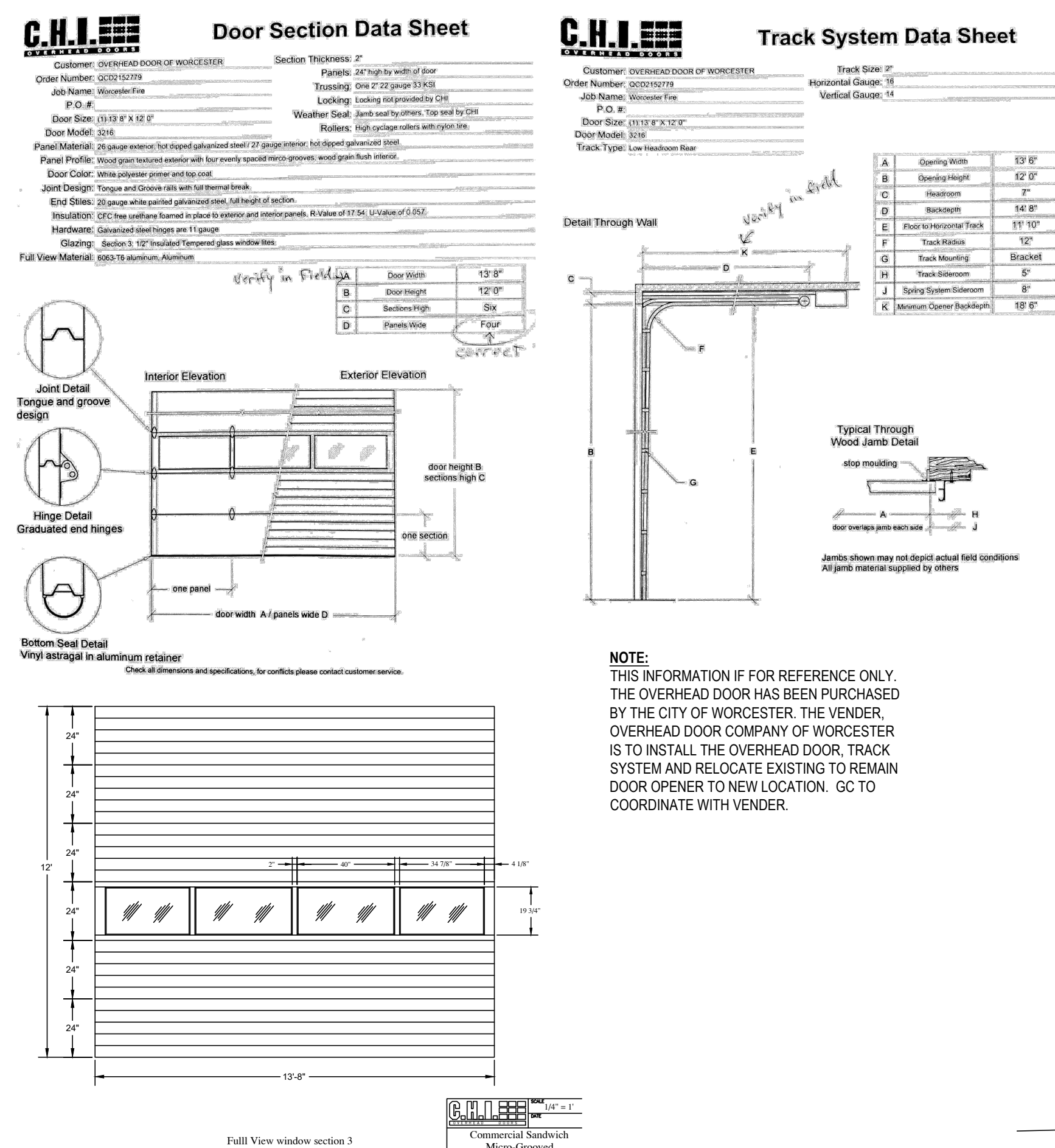
2 EXISTING / DEMOLITION SECOND FLOOR PLAN
SCALE: 1/8"=1'-0"



1 EXISTING / DEMOLITION FIRST FLOOR PLAN
SCALE: 1/8"=1'-0"



3 EXISTING / DEMOLITION SOUTHWEST ELEVATION
SCALE: 1/4"=1'-0"



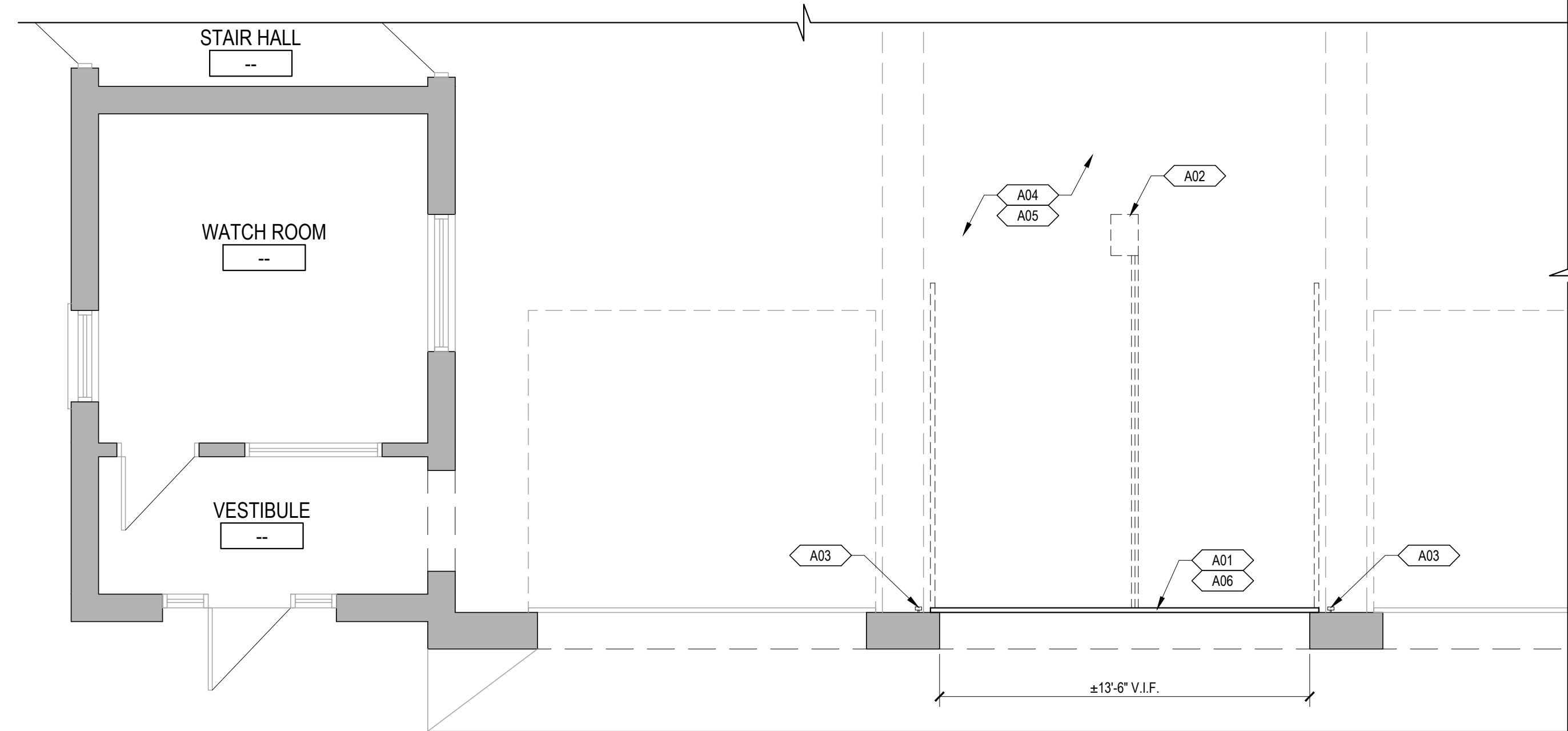
7 OVERHEAD DOOR ELEVATION & DATA SHEET FOR DOOR & TRACK
SCALE: 1/4"=1'-0"

NEW WORK KEY NOTES

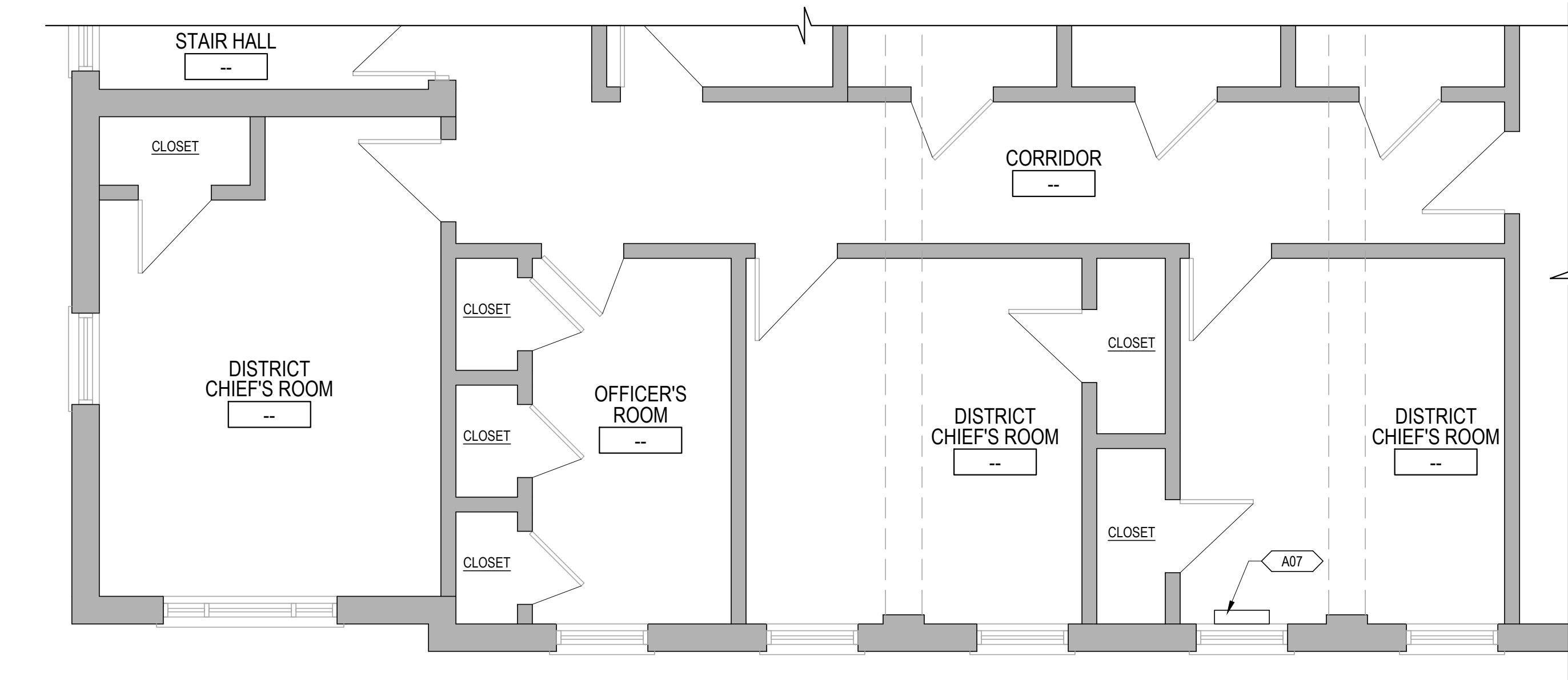
- A01 NEW OVERHEAD DOOR & ASSOCIATED TRACK SYSTEM TO BE INSTALLED BY VENDER. GC TO COORDINATE INSTALLATION WITH VENDER.
- A02 PROVIDE POWER TO EXISTING RELOCATED DOOR OPENER MOTOR & OPERATOR, SEE ELECTRICAL DRAWINGS.
- A03 REINSTALL EXISTING SENSING EDGE & PHOTO ELECTRIC SAFETY SENSORS.
- A04 REINSTALL EXISTING PLYMO VENT ITEMS TO RELOCATED AREAS AS REQUIRED FOR NEW WORK, SEE MECHANICAL DRAWINGS.
- A05 PROVIDE NEW REDIRECTED PIPING ABOVE AS REQUIRED FOR NEW WORK, SEE MECHANICAL DRAWINGS.
- A06 INSTALLED STEEL BEAM HEADER PER STRUCTURAL DRAWINGS. NEW PORTION OF MASONRY WALL OPENING TO BE FINISHED TO MATCH EXISTING ADJACENT WALL FINISH.
- A07 PROVIDE NEW ELECTRIC CABINET HEATER AND ASSOCIATED ITEMS, SEE MECHANICAL DRAWINGS.
- A08 EXISTING "LADDER 3" SIGNAGE TO BE REINSTALLED AT NEW LOCATION SPECIFIED BY OWNER.



6 PARTIAL SOUTHWEST ELEVATION
SCALE: 1/4"=1'-0"



4 PARTIAL FIRST FLOOR PLAN
SCALE: 1/4"=1'-0"

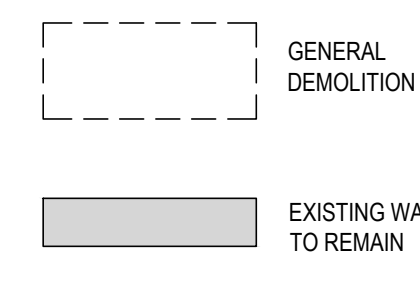


5 PARTIAL SECOND FLOOR PLAN
SCALE: 1/4"=1'-0"

DEMOLITION GENERAL NOTES

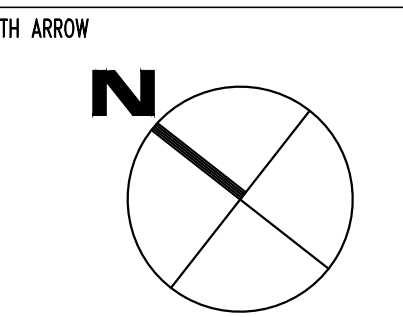
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO ANY DEMOLITION OR CONSTRUCTION. ANY DISCREPANCIES RELATING TO THE DRAWINGS SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY.
- THE CONTRACTOR SHALL BE AWARE OF SELECTIVE DEMOLITION AT ALL SECTIONS OF WORK, REVIEWING ALL NEW RENOVATION DETAILS TO DETERMINE WHAT IS TO BE REMOVED OR TO REMAIN AND WILL BE RESPONSIBLE FOR REPLACEMENT IN-KIND ALL WORK INADVERTENTLY REMOVED.
- ALL REQUIRED DEMOLITION NOT SPECIFICALLY DESIGNATED AS BEING THE WORK OF OTHER TRADES SHALL BE PERFORMED BY THE GENERAL CONTRACTOR.
- SUBCONTRACTORS TO RELEASE, REMOVE AND LOWER TO THE FLOOR ALL COMPONENTS, SYSTEMS AND ASSEMBLIES AS INDICATED, SPECIFIED, OR AS REQUIRED TO DO THEIR RESPECTIVE WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR DISASSEMBLING / CUTTING OR OTHERWISE MODIFYING EQUIPMENT AS REQUIRED TO PASS THROUGH EXISTING OPENINGS. G.C. SHALL ALSO BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING OF ALL MATERIALS SO TREATED.
- THE CONTRACTOR SHALL REMOVE ITEMS TO BE DEMOLISHED AS INDICATED ON THE DRAWINGS WITH CARE BEING TAKEN NOT TO DAMAGE ADJACENT WALLS, CEILINGS, FLOORS, FINISHES, CASEWORK OR MILLWORK SCHEDULED TO REMAIN. THE WORK AREA WILL BE LEFT CLEAN AND READY TO RECEIVE NEW WORK.
- PATCH AND REPAIR SCOPE OF ALL EXISTING TO REMAIN WALLS, FLOORING, AND CEILING DAMAGED DURING DEMOLITION OR REMOVAL OF EXISTING CONSTRUCTION. THIS INCLUDES PATCH & REPAIR DUE TO WORK PERFORMED BY ALL SUB-CONTRACTORS. REFER TO DEMO AND ARCHITECTURAL DRAWINGS FOR OTHER AREAS OF PATCHING, REPAIR AND INFILL.
- PROVIDE SMOOTH CLEAN SURFACES PREPARED TO RECEIVE INFILL AND/OR FINISHES (AS SCHEDULED) AT ALL MISCELLANEOUS OPENINGS, DEPRESSIONS OR VOIDS LEFT AFTER DEMOLITION. CONTRACTOR TO PROVIDE INFILL AND PATCHING OF ALL SUCH AREAS TO MATCH EXISTING ADJACENT SURFACES.
- CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY BARRICADES TO DIVIDE AREAS (CONSTRUCTION AND NORMAL USE) TO PROTECT USERS DURING CONSTRUCTION.
- G.C. SHALL COORDINATE AND PERFORM ALL ASSOCIATED WORK WITH M / E / P CONTRACTORS FOR ALL REQUIRED PENETRATIONS REQUIRING MISCELLANEOUS BLOCKING OR INFILL TO ACCOMMODATE M / E / P WORK.

DEMOLITION LEGEND



DEMOLITION KEY NOTES

- D01 EXISTING OVERHEAD DOOR & ASSOCIATED TRACK SYSTEM TO BE REMOVED IN ENTIRETY. ABATEMENT TO BE DONE FOR EX. OVERHEAD DOOR CASING CAULKING. REFER TO SPECIFICATION SECTIONS 01 35 43 -HAZARDOUS MATERIALS PROCEDURES & 02 28 20 -ASBESTOS REMEDIATION.
- D02 EXISTING DOOR OPENER MOTOR & OPERATOR & ASSOCIATED MOUNTING BRACKETS TO BE REMOVED WITH CARE AND STORED IN SECURE LOCATION FOR LATER REUSE.
- D03 EXISTING SENSING EDGE & PHOTO ELECTRIC SAFETY SENSOR TO BE REMOVED AND SALVAGED WITH CARE AS REQUIRED FOR NEW WORK THEN REINSTALLED.
- D04 EXISTING PLYMO VENT ITEMS TO BE REMOVED AND OR RELOCATED AS REQUIRED FOR NEW WORK, SEE MECHANICAL DRAWINGS.
- D05 EXISTING PIPING ABOVE OVERHEAD DOOR TO BE REMOVED AS REQUIRED FOR NEW WORK, SEE MECHANICAL DRAWINGS. ABATEMENT TO BE DONE FOR PIPE INSULATION ON PIPING TO BE REMOVED. REFER TO SPECIFICATION SECTIONS 01 35 43 -HAZARDOUS MATERIALS PROCEDURES & 02 28 20 -ASBESTOS REMEDIATION.
- D06 PORTION OF EXISTING MASONRY WALL TO BE REMOVED AS INDICATED ON ELEVATION. REMOVE EXISTING WF 14 STEEL BEAM HEADER WITH CARE. STORE IN SECURE LOCATION, CLEAN & PREP FOR LATER POSSIBLE REPOSITIONING & REUSE. SEE STRUCTURAL DRAWINGS.
- D07 EXISTING CONVECTOR & PIPING TO BE REMOVED, SEE MECHANICAL DRAWINGS.
- D08 EXISTING "LADDER 3" SIGNAGE TO BE REMOVED WITH CARE FOR NEW WORK, STORED IN SECURE LOCATION & LATER REINSTALL AT NEW LOCATION.
- D09 REMOVED CORE THROUGH EXISTING FLOOR ASSEMBLY AS REQUIRED FOR NEW ELECTRICAL FOR NEW WORK. SEE MECHANICAL & ELECTRICAL DRAWINGS. ABATEMENT TO BE DONE FOR FLOOR TILE ASSEMBLY & VINYL WALL BASE ASSEMBLY REQUIRED TO BE REMOVED FOR NEW WORK. REFER TO SPECIFICATION SECTIONS 01 35 43 -HAZARDOUS MATERIALS PROCEDURES & 02 28 20 -ASBESTOS REMEDIATION.



CONSULTANTS

REVISIONS

ADDENDUM #3 JULY 06, 2023

PROJECT PHASE

BID SET

PROJECT NUMBER

02023.04

PROJECT NAME / LOCATION

WORCESTER FIRE STATION #2 SOUTH DIVISION BUILDING RENOVATION

180 SOUTHBRIDGE ST.
WORCESTER, MA 01608

DRAWING TITLE

EX/DEMO FLR PLANS & ELEV., DEMO NOTES, PART. FLR PLANS & ELEV., DOOR INFO & NEW WORK NOTES



178 Albion Street
Suite 240
Wakefield, Massachusetts 01880

781 213 5030 T
781 213 5040 F
info@mvgrouparchitects.com E

STAMP

DRAWING INFORMATION

SCALE AS INDICATED

DRAWN BY HC

CHECKED FXT

DATE JUNE 8, 2023

DRAWING NUMBER

A1.01