The City of WORCESTER

Administration & Finance – Purchasing Division
Christopher J. Gagliastro, MCPPO – Purchasing Director
455 Main Street, Room 201, Worcester, MA 01608
P | 508-799-1220
purchasing@worcesterma.gov

June 17, 2024

To All Bidders:

Subject: **Bid No. 8212-W4, Accessibility Renovations – Burncoat Middle School / WPS**

ADDENDUM NO. 1

To Whom It May Concern:

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

- **Fire alarms are currently serviced by: R.B. Allen**

- **Date of substantial completion for exterior and interior lighting, egress lighting, exit signs and fire alarm is changed to November 1, 2024.**
  Remainder of project schedule shall be as previously noted.

- **Please see below additional clarifications, specification sections and drawings as noted.**

  A. General:
  HAZMAT REPORT IS PENDING
  WORCESTER PUBLIC SCHOOLS WILL BE RESPONSIBLE FOR ABATEMENT WORK INDICATED ON TABLE 1 OF SPECIFICATION SECTION 02 08 00.

  B. Drawing Changes:
  SHEET # CHANGE
  - AD-110 CALLED OUT DEMOLITION OF EXISTING OVERHEAD LIGHT IN CANOPY.
    UPDATED DOOR DEMO KEYNOTE
  - AD-130 UPDATED DOOR DEMO KEYNOTE, ADDED ABATEMENT GENERAL NOTE.

  C. Specification Changes:
  SPEC SECTION CHANGE
  - 02 08 10 DISTURBANCE OF LEAD-CONTAINING MATERAILS: ADDED TO SPECIFICATIONS IN ITS ENTIRETY.
  - 02 82 00 ASBESTOS ABATEMENT: ADDED TO SPECIFICATIONS IN ITS ENTIRETY

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

Very truly yours,
Christopher J. Gagliastro - Purchasing Director

SECTION 020810

DISTURBANCE OF LEAD–CONTAINING MATERIALS

PART I - GENERAL

1.01 GENERAL PROVISIONS

A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

B. Equality of material, article, assembly or system other than those named or described in this Section shall be determined in accordance with the provisions of Article V of the CONTRACT AND GENERAL CONDITIONS.

1.02 DEFINITIONS

A. The following definitions shall be applicable to this Section:

"Site": Refers to Burncoat Middle School located in Worcester, Massachusetts as described by the Contract Documents and Drawings.

"Owner": Refers to Worcester Public Schools and their designated, authorized personnel.

"Architect": Refers to Habeeb & Associates Architects, 100 Grove Street, Suite 303, Worcester, Massachusetts and their designated, authorized personnel.

"Consultant": Refers to Atlas Technical Consultants, LLC (ATLAS), 73 William Franks Drive, West Springfield, Massachusetts and their designated, authorized personnel.

"Contractor": Refers to the General Contractor and all Subcontractors who are performing construction work outlined by the Contract Documents. Contractor as referenced, applies to **ALL** trades (including Filed Subcontractors) working at the site.

1.03 DESCRIPTION OF WORK

A. The Contractor shall be made aware that lead is present in painted substrates or within building components throughout the site which will be impacted by renovation/demolition activities on this project.

B. The Contractor shall be required to comply with all aspects of the Occupational Safety and Health Administration (OSHA) Regulations pertaining to lead with regards to disturbance of these materials when performing their work.

C. It shall be the sole responsibility of the Contractor for compliance with this Section, including all costs associated with, but not limited to:

- Compliance with OSHA 29 CFR 1926.62 Lead Regulations.
- Development and implementation of a Compliance Program.
- Development and implementation of a Respiratory Program.
- Development and implementation of a Medical Monitoring Program.
- Development and implementation of a Hazard Communication Program.
- Performance of any Negative Exposure Assessments required.
- Providing all medical examinations required.
- Providing all equipment required (Including appropriate PPE)
- Providing all engineering controls and associated work practices.
- Disposing of all demolition material in accordance with local, state and federal regulations

D. With regards to renovation work performed under this project, abatement of lead-containing paint by a licensed Lead Abatement Contractor in accordance with Massachusetts DPH 105 CMR 460.000 Regulations will NOT be required. However, each Contractor performing the work at the site shall be required to comply with the following when disturbing lead painted components:

- OSHA "Lead in Construction Standard at 29 CFR 1926.62
- Applicable Massachusetts Department of Environmental Protection (MADEP) and federal Environmental Protection Agency (EPA) regulations regarding proper transport and disposal of lead-containing construction debris.

E. However, if the Contractor deems that removal of the lead paint will be an appropriate "engineering control" for compliance with their OSHA programs, then such removal shall be performed at the Contractor's own expense in accordance with applicable requirements. No additional compensation shall be granted for any engineering control methods employed by the Contractor for compliance with this Section, OSHA or other applicable requirements. In addition, all costs associated with removal of paint to meet compliance with applicable construction standards (i.e. welding, torch cutting, grinding, etc.) shall be the responsibility of the Contractor.

F. Due to the age of the building and previous painting history, the Contractor shall assume all painted surfaces to contain lead and comply with this Section accordingly. In addition, building components such as piping, sleeves, conduit, electrical equipment, etc. may also contain lead that will require compliance accordingly. The Contractor, at their own discretion may elect to perform testing to confirm the presence of lead in the building. However, all costs associated with additional testing and compliance with this Section shall be borne by the Contractor. <u>It should be noted that results of any testing performed must achieve a detection limit of 0.0 in order for the work to not fall under the OSHA standards for lead as outlined herein</u>.

G. OSHA regulates activities that disturb the lead by the use of manual techniques. Regulated activities include abrasive blasting, welding, and cutting, burning on structures, manual scraping or sanding, and manual demolition of structures or components. The work practices described in this Section are intended to adequately protect the workers from exposure to lead, provide a safe workplace, and protect the environment. However, it shall be the Contractors responsibility to comply with this Section as well as any other provisions/requirements outlined by OSHA and other applicable regulations.

H. Materials and Equipment: The work of this Section, without limiting the generality thereof, includes the furnishing of labor, materials, tools, equipment, services and incidentals necessary to safely accomplish tasks which will disturb lead.

I. Approvals and Inspections: Temporary facilities, work procedures, equipment, materials, services, and agreements must fully comply with EPA, OSHA, and NIOSH recommendations, standards and guidelines, as well as any other applicable federal, state, and local regulations. Where there exists an overlap of these regulations and guidelines, the most stringent shall apply.

J. Disposal: The Contractor shall dispose of demolition debris and associated materials in accordance with Part 3.06 of this Section.

1.04 SITE WORK DEFINITIONS

A. Action Level: Action Level as defined by OSHA shall refer to employee exposure, without regard to the use of respirators, to an airborne concentration of lead calculated as an 8-hour time-weighted average (TWA).

B. Competent Person: Competent Person shall refer to a person who is capable of identifying existing and predictable hazards in the surroundings or working conditions and who has authorization to take prompt corrective measures to eliminate them.

C. HEPA Filter: HEPA Filter shall refer to a filter capable of filtering out monodispersive particles of 0.3 microns or greater diameter from a body of air at 99.97 percent efficiency or greater.

D. Lead Containing Paint: Shall refer to paint found to contain lead in any concentration or paint assumed to contain lead as indicated in this Section.

E. Permissible Exposure Limit (PEL): PEL shall refer to employee exposure, without regard to the use of respirators, to an airborne concentration of lead calculated as an 8 hour time-weighted average.

1.05 PERMITS AND INSPECTIONS

A. Notifications/Approvals: The Contractor shall make, in proper and timely fashion, any necessary notifications to relevant Federal, State, and local authorities and shall obtain and comply with the provisions of all permits or applications required by the work specified, as

well as make all required submittals required under those auspices. The Contractor shall indemnify the Owner, their representatives and agents from, and pay for claims resulting from failure to adhere to these provisions. The costs for permits, applications, and the like, are to be assumed by the Contractor.

B. Fees, Permits and Licenses: The Contractor shall pay licensing fees, royalties, and other costs necessary for the use of any copyrighted or patented product, design, invention, or processing the performance of the job specified in this Section. The Contractor shall be solely responsible for costs, damages or losses resulting from any infringement of these patent rights or copyrights. The Contractor shall hold the Owner and Consultant harmless from any costs, damages, and losses resulting from any infringement of these patent rights or copyrights. If the Specification requests the use of any product, design, invention, or process that requires a licensing fee or royalty fee for use in the performance of the job, the Contractor shall be responsible for the fee or royalty and shall disclose the existence of such rights.

C. Contractor shall be responsible for costs for licensing requirements and notification requirements and other fees related to the ability to perform the work in this Section. The Contractor shall be responsible for securing necessary permits for work under this Section, including removal, materials usage, or any other permits required to perform the specified work.

1.06 SUBMITTALS

A. Pre-Construction Submittals: Prior to the commencement of the required work, the Contractor shall provide the following to the Architect for approval:

- A written description detailing the means and methods to achieve compliance with the OSHA standards as well as the provisions outlined herein.
- A written description detailing the means and methods for properly disposing of all demolition debris in accordance with local, state and federal regulations.

B. Post-Construction Submittals: Final payment to the Contractor shall not be made unless the following items are submitted to the Architect for approval:

- Original Copy of Waste Disposal Manifests acknowledging disposal of any hazardous and non-hazardous waste material from the project showing delivery date, quantity, and appropriate signature of landfill's authorized representative.

1.07 QUALITY CONTROL/ASSURANCE

A. Training Requirements: Workers who will have the potential of lead exposure shall have proof of successfully completing a training course which covers the topics required by OSHA. Contractors are also advised that training in other areas may be required by OSHA and are responsible to ensure that all training requirements for appropriate trades and procedures are met.

B. Specified Supervisor Qualifications: The Contractor shall specify an on-site Supervisor or Competent Person who is fully qualified in all aspects of safe work practices and procedures, and have (or will have) completed a training course within the previous year prior to the commencement of the work. The training course will cover all topics required by OSHA as well as training in relevant federal, state and local regulatory requirements, procedures and standards, supervisory techniques, and proper disposal procedures.

C. Site Specific Written Compliance Program: The program will be evaluated to ensure the elements required by OSHA are specific to the conditions at the job site.

D. Respiratory Protection Program: The Contractor must provide for review a written respiratory protection program in accordance with 29 CFR 1920.103 if respiratory protection is to be worn during this project.

E. Fit Test Records: If respiratory protection is to be worn as part of this project, records of successful respirator fit testing performed by a qualified individual within the previous 12 months, for each employee to be used on this project with the employee's name and social security number with each record.

F. Medical Surveillance: The Contractor shall provide biological monitoring to workers who have the potential of lead exposure. This monitoring shall be performed in accordance with OSHA. If workers are expected to exceed the action level for more than 30 days in any consecutive 12 months the Contractor shall institute a medical surveillance program in accordance with OSHA. A laboratory approved by OSHA shall conduct Blood level sampling and analysis.

1.08 CODES AND STANDARDS

A. Work shall conform to the standards set by applicable federal, state and local laws, regulations, 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 regulations.

B. In addition to any detailed requirements of the Specification, the Contractor shall at his own cost and expense comply with all laws, ordinances, rules and regulations of federal, state, regional and local authorities regarding handling and storing of waste material.

NOTE: 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 Specification 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 the Contractor's responsibility to know, understand, and abide by all such regulations, guidelines and common practices.

PART 2.0 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. The Contractor shall be responsible for providing all material and protective equipment required for performance of the work. The Contractor shall comply with all local, state and federal regulations pertaining to the selection and use of materials and equipment on this project. The Contractor shall provide a submittal on all materials and equipment to be used for review and approval by the Architect.

PART 3.0 - EXECUTION

3.01 WORKER PROTECTION

A. Initial Determination: The Contractor shall determine, through personal exposure monitoring on the job site or through relevant documentation from other similar jobs, whether workers will be exposed to airborne lead at or above the OSHA Action Level and Permissible Exposure Limit. If exposures at or above the action level are documented, appropriate health and safety procedures identified herein shall be followed. If levels below the action level are documented, the Contractor shall exercise an appropriate level of care to ensure that exposures above the action level do not occur. Whenever there is a chance of equipment, process, control, personnel or a new task has been initiated that may result in additional employees being exposed to lead at or at or above the action level or may result in employees already exposed at or above the action level being exposed above the PEL, the Contractor shall conduct additional monitoring.

Note: The Contractor shall be responsible for performing a negative exposure assessment on each trade subject to the OSHA Regulation. The assessment shall take place during routine work activities, which will simulate employees, actual exposure levels to lead. All assessments shall take place over an 8-hour time period and shall include all appropriate PPE and biological monitoring required as stated herein.

B. Personal Hygiene Practices: Where exposures to airborne lead above the OSHA PEL occurs or may be expected to occur, the Contractor shall enforce and follow good personal hygiene practices. These practices shall be performed until personal exposure sampling indicates that exposures are below the PEL at which time the Contractor has the option to continue or discontinue the use of personal hygiene facilities. These practices shall l include but not be limited to the following:

1. No eating, drinking, smoking or applying of cosmetics in work area. The Contractor will provide a clean space, separated from the work area, for these activities.
2. Workers must wash upon leaving the work area. The Contractor will provide wash facilities. This wash facility will consist of, at least, running potable water, towels, and a HEPA vacuum. Upon leaving the work area, each worker will remove and dispose of work suit, wash and dry face and hands, and vacuum clothes.
3. Disposable clothing, such as TYVEK suits, and other personal protective equipment

(PPE) must be donned prior to entering work area. A clean room will be provided for workers to put on suits and other personal protective equipment and to store their street clothes. Disposable suits shall be used once, then properly discarded.

4. A lavatory facility must be provided and located adjacent to the work area. The eating and drinking area, clean room, and the lavatory facility must be maintained in a clean and orderly fashion at all times. The Contractor will provide portable lavatories when needed and disinfect them daily.
5. If air-monitoring data gathered by the Contractor shows that employees' exposure to airborne lead exceeds the PEL, the following conditions apply:

    a. Showers must be provided. Shower water must pass through at least a 5.0 micron filter before returning to the public waste system.
    b. Workers must shower upon leaving work area.
    c. Three-stage decontamination unit must be established consisting of an Equipment Room, Shower, and Clean Room in series.

3.02 WORK AREA SET UP

The following work procedures, shall be adhered to for work on this project:

A. Site Safety: The Contractor is responsible for all safety at the work site. This includes, but is not limited to, electrical safety, mechanical (tool) safety, fire safety, and personnel protective safety. Safety requirements are, for the most part, common sense and sound business practice; however, the Contractor is advised that federal, state, and local regulations exist which govern safety on the work site. Therefore, in addition to the following, the Contractor is responsible for adhering to the most stringent requirements in effect.

B. Signage: Prior to the preparation for work which will disturb lead, the Contractor shall place warning signs immediately outside all entrances and exists to the area, warning that lead work is being conducted in the vicinity. The signs shall be at least 20" x 14" and read:

WARNING:
LEAD WORK AREA
POISON
NO SMOKING, EATING OR DRINKING
ALLOWED IN THE WORK AREA

The signs shall be in bold lettering with lettering not smaller than two inches tall. Should personal exposure monitoring results indicate that exposures are below the Action Level, then the signs will not be required.

C. Access to Work Areas: It will be the Contractor's responsibility to allow only authorized personnel into the work area. Barrier tape shall be used to limit access to the exterior work area. Contractor shall maintain a bound logbook, in which any person entering or leaving the work area must sign and enter the dates and times of entry and departure. Should personal

exposure results indicate the exposures are below the Action Level, then a logbook will not be required. The Contractor or competent person will not allow anyone access to the work area unless they have successfully passed an approved training program, and have been fitted and wearing a properly fitted respirator.

D. Dumpsters used to store hazardous waste shall be DOT approved, solid enclosed containers and locked and secured at all times.

E. Containment controls (including critical barriers, protective coverings, HEPA-filtered ventilation and decontamination facilities) may be required for renovation/demolition work. The degree of containment shall be appropriate for the anticipated levels of airborne dust. The lower the level of airborne dust, the lesser the requirements necessary to control lead emissions at the job site.

F. The Contractor shall isolate work areas for the duration of work by completely sealing off all openings in the work area. Isolation scaling shall be accomplished by constructing critical barriers where necessary around the work area perimeter. The work area shall be sealed airtight to the greatest extent possible.

G. The Contractor shall erect one or more Decontamination Facilities (if applicable) to serve each work area. The facility will consist of series of two or more connected chambers including, at a minimum, a clean room and a shower/wash room, separated by an air lock. Unless otherwise specified, the shower/wash room shall be contiguous to the work area. Non-contiguous, remote, three-chamber decontamination facilities may be substituted with the Consultant's prior written approval. Three-chamber decontamination facilities shall include an equipment room to be used for removal and temporary storage of contaminated worker clothing, equipment, and other items leaving the work area, prior to decontamination in the shower/wash room of the decontamination facility. In all cases, non-emergency access between contaminated and uncontaminated rooms or areas shall only be through the Decontamination Facility/Wash Room.

H. Ensure that barriers and linings are effectively sealed and taped at all times, and that the Shower/Wash Room floor is completely watertight. Repair damaged barriers, and remedy defects immediately upon discovery. Visually inspect enclosures at the beginning of each work period.

I. All renovation/demolition work areas shall remain isolated from all other trades on the project and remain inaccessible to the public. Contractor shall monitor the access to the renovation/demolition work areas. The below listed items are <u>required</u> to control the generation of lead containing dust during renovation/demolition activities if worker exposure is <u>above the PEL</u>. The Contractor is ultimately responsible for cleaning all generated dust and debris from renovation/demolition operations and must maintain work areas free from dust generated from renovation/demolition activities.

1. Signs shall be posted at all approaches to the work area warning that work involving lead is being conducted in the vicinity. Signs shall be in bold lettering not smaller than two inches tall.

2. Barriers shall not be removed until the work areas are thoroughly cleaned and approved by the Consultant.

3.03 WORK PROCEDURES

A. The Contractor shall initiate, and continue, sufficient engineering and work practice controls to reduce and maintain worker exposures to lead at or below the Action Level or Permissible Exposure Limit.

B. The following work practices are specifically required by these specifications:

1. All persons except those directly involved in the work shall be excluded from the work area. Physical barriers shall be used, where necessary, to limit access to the work area for the duration of the renovation activities. (Warning signs may need to be posted in accordance with applicable regulations.)
2. Provide hand washing facilities and assure that all workers thoroughly wash their hands and face upon exiting the work area. Workers shall pay careful attention to cleanse the hands and face when decontaminating (Provide hygiene facilities, including shower, as required based on initial assessment and continued monitoring.)
3. Thoroughly wet the areas to be demolished and mist the air to reduce the potential for creating airborne lead dust.
4. All equipment used by the workers inside the work area shall be either left in the work area or thoroughly decontaminated before being removed from the area. Extra work clothing (in addition to the disposable suits supplied by the Contractor) shall be left in the clean area until the completion of work in that area. The clean area shall be cleaned of all visible debris and disposable materials daily.
5. Under no circumstances shall workers or supervisory personnel eat, drink, smoke, chew gum, or chew tobacco in the work area; to do so shall be grounds for the Architect to stop all demolition operations. Only in the case of life threatening emergency shall workers or supervisory personnel be allowed to remove their protective respirators, if applicable, while in the work area. In this situation, respirators are to be removed for as short a duration as possible.
6. Feasible engineering controls shall be implemented by the Contractor to minimize the possibility of contamination of areas adjacent to the work area. The following activities are the minimum requirements of this section and affect the renovation/demolition performed on the project:

    a. No torch cutting, mechanical sanding or stripping or abrasive methods of paint removal shall occur.
    b. No renovation/demolition activities may occur which increase the workers exposure above the Action Level or Permissible Exposure Limit as described under OSHA.

7. Workers shall be informed of the components to be impacted during renovation/demolition that are identified as containing lead.

8. Separation of Trades: Unprotected, untrained workers or trades shall not perform any related work within the same areas as demolition involving components identified as containing lead. Other trades may not enter these areas until clean-up procedures are completed.

3.04 AIR SAMPLING – CONTRACTOR

A. Personal Exposure Monitoring: The Contractor shall perform personal exposure sampling to monitor personal exposure levels to airborne lead on each specific work task. Samples shall be taken for the duration of the work shift or for eight hours, whichever is greater. Personal samples need not be taken every day after the first day if working conditions remain unchanged, but must be taken every time there is a change in the removal operation, either in terms of the location or the type of work. Sampling will be used to determine eight-hour Time-Weighted-Averages (TWA). The Contractor is responsible for personal sampling as outlined in the OSHA Standards.

B. Frequency: Air monitoring frequency will be established in accordance with the requirements set forth the OSHA Standards.

3.05 CLEAN-UP PROCEDURES & VERIFICATION PROCEDURES

A. When work is in progress, the work site shall be cleaned at end of each day's activities. The building shall be secured to prevent entry by any person after termination of workday. Durable equipment, such as power and hand tools, generators, and vehicles shall be cleaned monthly.

B. Clean-up shall also include all paint chips and/or debris existing prior to the start of the contract and as generated during construction. This shall also include any paint that becomes dislodged and falls to the floor as a result of construction activities.

C. Equipment shall be cleaned by HEPA vacuuming. Surfaces shall be maintained as free as practicable of accumulations of dust and debris. Clean up of dust and debris shall be accomplished with a HEPA vacuum or wet methods. The debris shall be misted with water with an airless type sprayer and collected with a mop or broom.

D. Daily clean-up or final clean-up of all interior and/or exterior work areas shall be required and performed as specified herein.

3.06 DISPOSAL OF WASTE MATERIAL

A. General:

All costs associated with proper disposal of the waste materials (whether hazardous, non-hazardous or regulated) shall be borne by the Contractor under the Base Bid. All materials, whether hazardous, non-hazardous or regulated shall be disposed of in accordance with all laws, and the provisions of this Section and any or all other applicable federal, state county or local regulations and guidelines. It shall be the sole responsibility of the Contractor to assure compliance with all laws and regulations relating to disposal.

B. Non-Hazardous Materials: The Contractor shall contact the regional EPA, State and local authorities to determine disposal requirements for construction and demolition debris that contains lead (non-hazardous). The Contractor shall be responsible for providing all dumpsters/containers required for collection and disposal of such material as well as disposal in an approved landfill.

C. Hazardous Waste/Regulated Materials: All materials which are determined to be hazardous waste or regulated waste for lead shall be disposed of by the Contractor as specified herein. The Contractor shall perform representative Toxicity Characteristic Leaching Procedure (TCLP) tests of demolition debris to ensure the material is properly profiled for disposal. This shall also include all testing required by the disposal or recycling facility. All costs associated with TCLP testing to profile the waste material shall be borne by the Contractor. If the material is found to be hazardous waste or regulated waste, the Contractor shall provide appropriate drums/containers for use. The Contractor shall properly handle and transport all hazardous waste or regulated waste material into the drums/containers provided.

D. All TCLP sampling and analysis shall be subject to approval by the Owner. A submittal shall be provided by the Contractor which details the procedures for the sampling including the name of the sampler, methodology for sample collection, sample preparation and chain-of-custody procedures. The laboratory to be used shall be certified by the State of Massachusetts and the American Industrial Hygiene Association (AIHA).

E. No demolition or recyclable material shall be removed from the site unless approved by the Owner. The Contractor shall provide the name of the transporter and disposal facility for each type of waste (i.e. hazardous, non-hazardous, regulated or recyclable) for review and approval by the Owner.

F. Recyclable/Salvaged Materials (Non-Hazardous): The Contractor shall note that any demolition material deemed to be recyclable or salvageable by the Contractor may contain lead which could result in the recycling or salvage facility rejecting acceptance regardless of the lead content or TCLP result. The Contractor is hereby notified of this fact and shall bear all responsibilities and costs associated with acceptance and/or rejection of such materials in a C&D landfill, waste disposal facility and/or a recycling/salvage facility under their Base Bid.

G. The following materials are considered Hazardous Waste (Lead) if they are generated in a form by themselves and shall be disposed of as such:

    a. Paint chip and paint chip debris

H. The Contractor shall be responsible for proper disposal of all materials outlined herein. In addition, all costs associated with worker protection or environmental protection requirements for such work shall be the responsibility of the Contractor.

END OF SECTION

SECTION 020800

ASBESTOS ABATEMENT

PART I - GENERAL

1.01 GENERAL PROVISIONS

A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 1 – GENERAL REQUIREMENTS, which are hereby made a part of this section of the specifications.

B. Equality of material, article, assembly or system other than those named or described in this Section shall be determined in accordance with the provisions of Article IV of the CONTRACT AND GENERAL CONDITIONS.

1.02 DEFINITIONS

A. The following definitions shall be applicable to this Section:

"Site": Refers to Burncoat Middle School located in Worcester, Massachusetts as described by the Contract Documents and Drawings.

"Owner": Refers to Worcester Public Schools and their designated, authorized personnel.

"Architect": Refers to Habeeb & Associates Architects, 100 Grove Street, Suite 303, Worcester, Massachusetts and their designated, authorized personnel.

"Consultant": Refers to Atlas Technical Consultants, LLC (ATLAS) 73 William Franks Drive, West Springfield, Massachusetts and their designated, authorized personnel.

"General Contractor": Refers to the Contractor who has been awarded the overall contract for renovation work outlined by the Contract Documents.

"Asbestos Abatement Contractor": Refers to the Contractor who is performing asbestos abatement work as outlined by this Section.

1.03 GENERAL REQUIREMENTS/QUALIFICATIONS

A. All Asbestos Abatement work referenced herein shall be performed by a Massachusetts licensed Asbestos Abatement Contractor in accordance with Massachusetts Department of Labor Standards (MADLS) 454 CMR 28.00 and Department of Environmental Protection (DEP) CMR 7.00 & 7.15 Regulations.

B. Qualifications of Asbestos Abatement Contractor

1. Asbestos Abatement Contractor performing the abatement work of this section ("Asbestos Abatement Contractor") shall be an Asbestos Abatement Contractor licensed to perform asbestos operations in the State of Massachusetts. Asbestos Abatement Contractor shall submit license number and proof of licensure.

2. The Asbestos Abatement Contractor shall also provide the project name, contact person and phone number of three (3) projects which were successfully completed of similar size and scope within the last two (2) years. Each project shall have been completed in good standing and the work performed by the Asbestos Abatement Contractor for each project resulted in no work violations/citations, contract delays, contract extensions/disputes or litigation. Failure to provide this information and/or meet the approval of these qualifications by the Owner may result in rejection of the Asbestos Abatement Contractor.

3. The Owner, Architect or Consultant shall also reserve the right to research and utilized other information received from any other projects completed by the Asbestos Abatement Contractor not provided under 1.03 B (2) above, regardless of the date completed, location or circumstances resulting from the outcome of their work. The Owner shall reserve their right to reject the Asbestos Abatement Contractor based upon this review, for any reason, if found to be in the best interest of the Owner.

NOTE: The Asbestos Abatement Contractor shall not be authorized to begin work until all credentials outlined above are reviewed and approved by the Architect.

1.04 DESCRIPTION OF WORK

A. Work: This section details all areas where asbestos abatement work is to be performed and lists areas requiring special protection during the abatement work. The Asbestos Abatement Contractor shall furnish all labor, materials, services, training, insurance, and equipment as needed to complete removal of asbestos-containing and asbestos-contaminated materials located as indicated below. The Asbestos Abatement Contractor shall follow all Federal, State and local ordinances, regulations and rules pertaining to asbestos, including its abatement, storage, transportation and disposal.

B. The Asbestos Abatement Contractor shall be responsible for verifying all quantity estimates in preparation of their bids, including the location and conditions of all asbestos-containing materials to be abated under this contract. No additional compensation and/or contract time shall be granted to the Asbestos Abatement Contractor for failure to perform this requirement.

C. The following Scope of Work and Requirements shall be applicable for asbestos abatement work at the site:

1. All Asbestos Abatement work shall take place in accordance with the provisions outlined herein as well as current local, state and federal regulations. No additional compensation shall be granted to the Asbestos Abatement Contractor for compliance with applicable laws when performing the abatement work at the site. This shall include any regulatory requirements that mandate additional or more restrictive containment and abatement procedures than what has been presented herein.

2. The Asbestos Abatement Contractor shall coordinate with the General Contractor as to the locations of areas to be abated in accordance with the Scope of Work outlined herein and the Drawings.

3. The Asbestos Abatement Contractor shall be responsible for all demolition work required in order to access all asbestos materials for abatement. All demolition debris shall be disposed of as asbestos waste, unless otherwise determined by the Consultant.

4. Any materials deemed to be asbestos contaminated by the Consultant, prior to the start of work, or as a result of the work, shall be treated as such and disposed of properly by the Asbestos Abatement Contractor.

5. Existing finishes and structural components to remain shall not be damaged. The Asbestos Abatement Contractor shall take care so as not to damage or alter existing surrounds or structural components. Repair of damage caused to the existing surrounds by the Work shall be responsibility of the General Contractor.

6. The following requirements shall be applicable for removal of the door units to be replaced at the site:

    a. Removal shall include all interior/exterior caulking located on the framework and glazing compound located glass of the doors, side lights and transom at each location as per the Drawings.
    b. This shall also include all caulking and overruns present on the on or underneath the framework or other adjacent substrates.
    c. All removed materials shall be disposed of as Asbestos-Containing Waste Material (ACWM).
    d. All removal shall take place under containment as specified under Massachusetts MADLS 454 CMR 28.00 and MADEP 310 CMR 7.15 Regulations.

7. Refer to Attachment A (Table 1.0) for a summary of materials that require abatement at the site. Refer to Drawings for locations of the work and coordinate all abatement with the General Contractor.

1.05 SUBMITTALS

A. The following submittals are required for review and approval by the Architect on/or before the Pre-Construction Meeting:

    1. Copy of Massachusetts MADLS Asbestos Abatement Contractor's License.
    2. Copies of all notifications for asbestos abatement.
    3. Chain-Of-Command list of all personnel on-site and emergency contact person(s)
    4. Work plan which dictates all removal procedures to be implemented.
    5. Proposed waste hauler and waste disposal site for the ACWM and a copy of the Waste Shipment Record (WSR) to be used for shipment of the ACWM off-site for disposal.

B. In addition to the items required by other sections of the Project Manual, the following submittals are required for final payment

    1. Copy of Waste Shipment Records, signed by the landfill showing receipt of the ACWM.

1.06 CODES AND STANDARDS

A. All work shall conform to the standards set by applicable Federal, State and local laws, regulations, 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 regulations. In addition to any detailed requirements of the Specification, the Asbestos Abatement Contractor shall at his own cost and expense comply with all laws, ordinances, rules and regulations of Federal, State, Regional and Local Authorities regarding handling and storing of asbestos waste material. This includes all applicable OSHA regulations.

B. All regulations and other governing agencies in their most current version are applicable throughout this project. Where there is a conflict between this Specification and the cited State, Federal, or local regulations, 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 the Asbestos Abatement Contractor's responsibility to know, understand, and abide by all such regulations and common practices.

1.07 FEES, PERMITS & LICENSES

A. The Asbestos Abatement Contractor shall pay all licensing fees, royalties, and other costs necessary for the use of any copyrighted or patented product, design, invention, or process in the performance of the work specified in this section. The Asbestos Abatement Contractor shall be solely responsible for costs, damages, or losses resulting from any infringement of these patent rights or copyrights. The Asbestos Abatement Contractor shall hold the Owner, Consultant and Architect harmless from any costs, damages, and losses resulting from any infringement of these patent rights or copyrights. If the Contract Specification requests the use of any product, design, invention, or process that requires a licensing, patent or royalty fee for use in the performance of the job, the Asbestos Abatement Contractor shall be responsible for the fee or royalty fee and shall disclose the existence of such rights.

B. Asbestos Abatement Contractor shall be responsible for costs for all licensing requirements, where applicable and notification requirements and all other fees related to the Asbestos Abatement Contractors ability to perform the work in this Section.

C. Secure all necessary permits for work under this Section, including hauling, removal, and disposal, fire, and materials usage, or any other permits required to perform the specified work.

1.08 CLEANING

A. Maintain the work site in a neat and orderly manner at all times, so as not to interrupt or infringe upon the work of other trades. Perform all final cleaning of abatement work areas as required by this Section and Massachusetts Regulations to the approval of the Owner’s Consultant. Upon completion of work in any given area, Asbestos Abatement Contractor shall remove all material and equipment associated with the work, not necessary to complete other phases of the work in that area.

B. Comply with all requirements for final clearance and release of a work area as described in this Section and required by the Massachusetts Regulations prior to take down of polyethylene and area clean-up.

1.09 COORDINATION

A. Extend full cooperation to Owner in all matters involving the use of Owner's facilities. At no time shall the Asbestos Abatement Contractor cause or allow to be caused conditions, which may cause risk or hazard to the general public, or conditions that might impair safe use of the facility.

B. Coordinate the work of this section with that of all other trades as directed by the General Contractor and at the express consent of the Owner and Architect. Phasing and scheduling of this project will be subject to the approval of the Owner and Architect. The work of this Section shall be scheduled and performed so as not to impede the progress of the project as a whole. Work shall not proceed in any area without the express consent of the Owner and Architect. The Asbestos Abatement Contractor shall be available within 24 hours notice for additional work if after acceptance of the work it is found that full abatement was not achieved from the initial work effort as determined by the Owner, Architect or Consultant.

C. Complete Asbestos activities in the phases of the final schedule agreed upon by Owner and Architect.

1.10 SUBSTITUTION OF MATERIALS OR METHODS

A. Owner and Architect approval is required for all modifications to methods, procedures, and design, which may be proposed by the Asbestos Abatement Contractor. It is the intent of these documents to allow the Asbestos Abatement Contractor to present alternative methods to the abatement processes herein, for review by Owner and Architect. Any such modifications or substitutions to methods, procedures, or design shall comply with applicable regulations. Asbestos Abatement Contractor shall submit the proposed modification or substitution in accordance with the requirements of the General Conditions, and no later than fifteen (15) working days prior to planned commencement of proposed modification, for review and approval.

B. Unless requests for modification or substitution are made in accordance with the above instructions and the instruction of the General Conditions, supported by sufficient proof of equality, Asbestos Abatement Contractor shall be required to furnish the specifically named or designed items, methods or procedures designated in this Section.

C. If the modification or substitution necessitates changes or additional work, same shall be provided and the Asbestos Abatement Contractor shall assume the cost and the entire responsibility thereto unless performed under the approved Change Order Process.

D. The Owner and Architect's permission to make such substitution shall not relieve the Asbestos Abatement Contractor from full responsibility for the work.

1.11 SITE SECURITY

A. The Asbestos Abatement Contractor is responsible for performing all work under this contract without contaminating the building environment with asbestos fibers. This includes interiors of duct work, outside containment locations, machinery and equipment and any other release into unregulated spaces. The Asbestos Abatement Contractor is responsible for making right and clean-up of any such contamination if found to be present.

B. The Asbestos Abatement Contractor will be responsible for the security of the abatement area, allowing only authorized personnel into the area, and securing assigned entrances and exits with locked doorway's at the end of the work day. Signs will be posted prior to asbestos removal as required in 29 CFR 1926.1101.

1.12 PROJECT MONITOR

A. The Owner (through the Architect) has retained ATLAS as their Consultant for the technical advisement and project management during the Project. In addition, ATLAS will perform project monitoring services during abatement activities. The Contractor shall regard ATLAS's direction, as authoritative and binding as provided herein, in matters outlined by this Section.

B. ATLAS's licensed Project Monitor, acting as the Owner's Representative, will perform monitoring of Contractor work practices and performance, inspection of the worksites, and air sampling and analysis for each phase of the asbestos removal project. Quality control and testing criteria has been established in these specifications, and will be strictly enforced. ATLAS's Project Monitor will review matters relating to safety, interpretation of the specifications, and scheduling of work, and will make decisions upon consultation with the Architect and Owner.

1.13 TEMPORARY FACILITIES

A. Use of Owner provided facilities is specified in Division 1 and shall be coordinated through the General Contractor and Owner.

PART II - PRODUCTS

2.01 MATERIALS

A. All materials and equipment proposed to be used on this project shall be subject to the acceptance of the Owner, Architect and Consultant. The Asbestos Abatement Contractor shall comply with local, state and federal regulations pertaining to the selection and use of materials and equipment on this project. The Asbestos Abatement Contractor shall provide a submittal on all materials and equipment to be used for review and approval by the Architect and Consultant prior to commencement of the work.

PART III - EXECUTION

3.01 PREPARATION

A. Critical Barriers: Prior to any masking and sealing operations which will make up the asbestos removal work area, windows, doors, openings, ducts, drains and vents will be masked and sealed with a minimum of one layer of six (6) mil polyethylene sheeting. Large openings to occupied areas, such as open doorways, hallways, passageways and major openings shall be sealed with permanent, solid construction materials and made air tight in accordance with MADLS regulations 454 CMR 28.00. Voids in the walls and ceilings that are due to penetrations of conduits and pipes shall be sealed with a fire retardant spray foam. Exposed electrical panels in work areas will be shut off when possible, and masked and sealed with a minimum of two (2) layers of six (6) mil polyethylene and duct tape.

B. Decontamination Chambers: It is the Asbestos Abatement Contractor's responsibility to provide Decontamination Chambers consisting of an equipment room, shower and clean room for personnel involved in asbestos removal. The Chamber shall be masked and sealed with two layers of six mil polyethylene sheeting with flaps between each room. Each of the three rooms will be of a sufficient size to accommodate the Asbestos Abatement Contractor's contaminated personnel and related equipment. The rooms will be framed, masked, sealed and attached and sealed to the entry/exit ways of asbestos worksites. Adequate heat and light will be safely provided. The Asbestos Abatement Contractor shall provide a minimum of one water heater per work area decontamination chamber. Waste water will be filtered by 20 micron and 5 micron filters in series prior to discharge.

3.02 ABATEMENT PROCEDURES

A. General: The following paragraphs detail the work requirements for the regulated area. Workers shall wear tyvek suits and respiratory protection for all removals.

B. Masking and Sealing

1. Critical Barriers

a. Prior to any masking and sealing operations which will make up the asbestos removal work area, windows, doors, openings, ducts, drains and vents will be masked and sealed with a minimum of one layer of six (6) mil polyethylene sheeting. Voids in the walls and ceilings that are due to penetrations of conduits and pipes shall be sealed with a fire retardant spray foam. Large opening to occupied areas, such as open doorways, hallways, passageways and major openings shall be sealed with permanent, solid construction materials and made air tight in accordance with MADLS regulations 454 CMR 28.00.

b. In areas where drains or sump pumps are located, primary filters will be placed in drain and openings sealed with 6 mil polyethylene sheeting, in addition to floor masking and sealing requirements.

c. Any furniture, fixtures, or stored material that cannot be removed or that must remain in the work area will be covered, masked and sealed with a

minimum of one layer of six (6) mil polyethylene sheeting. If the surfaces of these materials are determined to be contaminated with asbestos fibers, the Contractor shall remedial clean them prior to masking and sealing.

d. Exposed electrical panels in work areas will be shut off when possible, and masked and sealed with a minimum of two (2) layers of six (6) mil polyethylene and duct tape.

2. Full Containment:

a. Unless otherwise specified, floors and walls will be masked and sealed with two layers of six mil polyethylene sheeting with a minimum overlap of two feet at seams and up walls. Where it is necessary to mask and seal ceiling areas, a minimum of one layer of six mil polyethylene sheeting will be used.

b. The floors shall be covered first and the flooring plastic shall extend up on the walls. The walls shall then be covered with plastic from ceiling to floor level, thus overlapping the floor plastic. The floor shall then be covered with the second layer of plastic, the plastic extended up the walls and the edges sealed to the wall plastic. The walls shall then be covered with a second layer of plastic from ceiling to floor level, thus overlapping the second layer of floor plastic. The bottom portion of the wall plastic shall thus be sandwiched between the layers of the floor plastic. If the floor or wall plastic necessitates seams, the seams in successive layers of plastic sheet shall be staggered so as to reduce the potential for water or asbestos to penetrate through the covering.

c. The two separate layers of six-mil polyethylene sheeting on walls and floors shall constitute the primary and secondary containment barriers, respectively. This containment, along with the decontamination chamber, will constitute full containment, and will isolate the contained worksite from surrounding areas except where air must enter the worksite due to the use of exhaust equipment.

C. Personal Air Sampling: Daily personal and excursion sampling will be the responsibility of the Contractor to check personal exposure levels versus respiratory protection and to check work practices. At least 25% of the workers in each shift, but not less than 2, shall be sampled. The Contractor is responsible for his own personal sampling as outlined in OSHA Regulation 1926.1101. The Contractor shall post the personal air sample results within 24 hours.

D. Remedial Cleaning: Remedial cleaning of horizontal surfaces, ledges, and equipment will be required prior to masking and sealing operations of work areas. Cleaning will be done using HEPA vacuums and wet methods. Determinations of additional remedial cleaning will be made on the basis of hazard potential to workers and the outside environment relating to setup and masking and sealing operations (as deemed by the Consultant). Respiratory protection and protective clothing will be required for the cleaning. Prior to remedial cleaning negative air filtration units and a three stage decontamination shall be in place and running and all wall and ceiling penetrations shall be sealed with fire retardant spray foam.

E. Decontamination Chambers: The Contractor shall construct a decontamination chamber in accordance with local, state and federal regulations governing asbestos abatement.

F. Negative Air Filtration: The Contractor shall establish negative pressure air filtration within the work areas. The Contractor shall install, operate, and maintain a sufficient number of Negative Air Filtration Units (NAFU's) to meet the requirements of local, state and federal regulations.

G. Removals: Removal of asbestos containing materials, unless specified otherwise, will be performed using negative air filtration techniques, wet methods, attached three stage decontamination chambers, the masking and sealing of openings, ducts and vents, full two-layer plastic containment's and the encapsulation of post removal surfaces. Removals will be as indicated and as specified herein, and will be performed in a neat and workman like manner to the limits indicated or specified. Asbestos will be consistently and thoroughly wetted with a fine spray of amended water and will be carefully removed and immediately placed in approved and properly labeled six mil polyethylene disposal bags. Asbestos residual materials will be diligently scraped or brushed from surfaces. After brushing and scraping, surfaces will be free of visible debris and fibers and surfaces will be HEPA vacuumed clean.

H. Visual Inspections: Work areas shall pass a visual inspection conducted by the Site Supervisor responsible for the project and the Owner's Project Monitor (i.e. Consultant). The criterion for this inspection will be the absence of visible debris in accordance with ASTM standard E1368-90. A certificate of visual inspection will be signed by the Project Monitor and the Site Supervisor after final inspection clearance. The Contractor will be responsible for the costs of visual inspection and testing required for any work which fails clearance air quality criteria.

I. Encapsulation: A bridging encapsulant/lockdown sealant will be applied to remaining surfaces in direct contact with removal operations, polyethylene sheeting and on any porous surfaces within the work site. The chosen encapsulant must be compatible with the replacement materials and conform to the proper edition of applicable fire and electrical standards.

J. Work Completion: Final air clearance testing shall be performed by the Project Monitor for all areas.

3.03 DISPOSAL

A. Packaging: Prior to post-abatement inspection, asbestos- containing waste shall be packaged in sealed double containers and removed from the work area to a specified transportation vehicle or a designated holding area approved by the Owner. At the end of each work day the Asbestos Abatement Contractor shall remove the debris accumulated during that day's work activities using procedures outlined in the Specifications. The Asbestos Abatement Contractor shall provide a daily tally of all bags removed.

B. Temporary Storage of Waste: An area for temporary storage of asbestos waste must be approved by the Owner. Asbestos waste must be stored in a restricted area and must be in an **enclosed container** which is posted and secured whenever not in use. ACM Waste shall NOT be store outside the building on the ground, pavement areas or other non-enclosed area. Asbestos waste material shall be loaded into a waste transportation

vehicle/dumpster and hauled away as soon as there is a sufficient quantity available for direct transportation to the approved disposal site. ACM waste shall **NOT** be transferred back to the Asbestos Abatement Contractor's yard/facility unless approved by the Owner. ACM Waste shall only be stored at:

1. An approved refuse transfer station facility permitted or that is managing such wastes in accordance with 310 CMR 19.061 and/or;
2. The site of generation of the asbestos abatement activity.

Note: All ACM waste shall be shipped from the site for disposal within 30 days after completion of the work and acceptance of a final visual inspection by the Consultant.

C. OSHA/EPA labeling: Asbestos warning labels having permanent adhesive and waterproof print, or being permanently printed on the container, shall be affixed to the outside of all asbestos containers, and each inside bag, except that nonfriable asbestos-containing waste that has not been and does not have a high probability of becoming, crumbled, pulverized, or reduced to powder need not be labeled. Labels will be conspicuous and legible and shall contain the following warning:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

The Asbestos Abatement Contractor is directed to properly label each waste bag in accordance with the latest NESHAP standard, Section 61.150, with the following information:

SITE OWNER'S NAME
SITE NAME

D. DOT labeling and marking: A DOT "class 9" shipping label and DOT mark shall be applied to or be printed on each packaging of asbestos-containing materials.

E. Waste Transportation: All ACM waste shall be containerized pursuit to 310 CMR 7.15 prior to being transported. All ACM waste shall be transported in totally enclosed vehicles or containers that are designed, constructed, and operated to prevent spills, leaks or emissions. All ACM waste shall be transported in compliance with 40 CFR Part 61 and applicable Department of Transportation (DOT), OSHA and local regulations. Each vehicle transporting asbestos-containing waste shall be marked with asbestos danger signs during loading and unloading of the waste, in accordance with the NESHAP, 40 CFR 61.150.

F. Asbestos waste shipment records: The Asbestos Abatement Contractor shall prepare the waste shipment records for disposal of the ACM. **All ACM waste to be disposed of from the site shall be shipped on an "Asbestos Waste Shipment Record" that has been approved by the Owner. A representative from the Owner shall sign-off as "Generator" on the Asbestos Waste Shipment Record for each shipment leaving the site.**

G. The following information shall be included on the waste shipment record for each and every load of ACM transported off-site:

1. The name, address and telephone number of the owner/operator of the facility or dumping ground where asbestos abatement activities have occurred;
2. The quantity and type (friable or non-friable) of the ACWM in cubic meters (cubic yards) and a description of the container used for shipment;
3. The name, address and telephone number of the person who conducted any asbestos abatement activity;
4. The name and telephone number of the disposal site operator;
5. The name and physical location of the disposal site;
6. The date transported;
7. The name, address, and telephone number of the transporter(s);
8. Certification by the owner/operator of the facility or dumping ground where asbestos abatement activities have occurred/where asbestos waste was generated that the contents of each shipment have been characterized, packaged, marked and labeled in accordance with 310 CMR 7.15;
9. Signature of each transporter confirming the contents of each shipment are in all respects in the proper condition for transport according to applicable international, federal, state and local regulations;
10. Signature by the receiving disposal facility confirming that: i) the quantity of ACWM listed on the waste shipment record is the same as the quantity accepted for disposal; and ii) it holds appropriate permits and/or authorizations to accept for disposal ACWM described on waste shipment records.

Note: The final waste shipment records (with signature of acceptance at the landfill) for disposal of ACM from the project site shall be received by the Owner within 35 days of shipment from the site.

3.04 QUALITY CONTROL AND TESTING

A. The Asbestos Abatement Contractor shall be responsible for achieving acceptable visual and final air clearance testing for all abatement areas as follows:

- ATLAS's Project Monitor shall inspect the work area for clearance using visual and physical methods.
- Post abatement air clearance testing will be required if the work is performed under full containment and negative pressure. If work is performed at the building exterior under a Regulated Area, only a final visual inspection will be required.
- Phase Contrast Microscopy (PCM) clearance testing will be performed to confirm the completion of the removal in accordance with state of Massachusetts Regulations. The work areas shall be considered complete if the following criteria is met:

    1. Containment's cleared and samples analyzed by Phase Contrast Microscopy (PCM): Maximum airborne fiber concentration of <0.01 fibers per cubic centimeter for each sample.

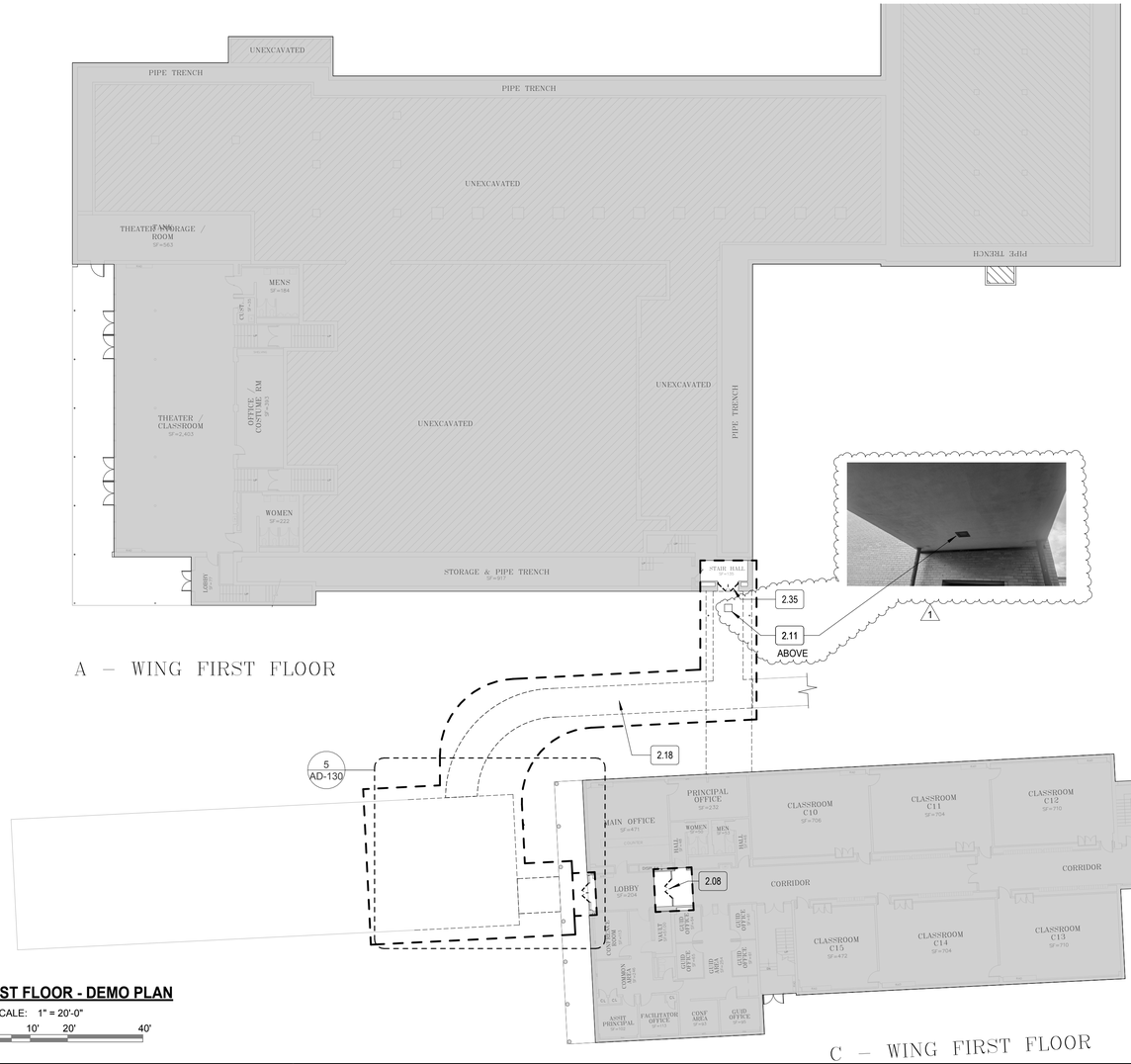
Note: Should results indicate a fiber concentration greater than the clearance criteria stated above or if the visual inspection fails, the Asbestos Abatement Contractor shall reclean the entire work at no additional cost to Owner, utilizing the methods specified in this section. The Asbestos Abatement Contractor shall pay for all additional testing and inspections until the clearance level is achieved as per this Section. The cost of additional testing and inspection shall be paid by the Asbestos Abatement Contractor by subtracting the cost for analysis and inspector's time from the Contract total. This shall also include resampling of any areas where air cassettes became overloaded due to construction activities.

ATTACHMENT A

TABLE 1.0
SUMMARY OF ACM TO BE ABATED

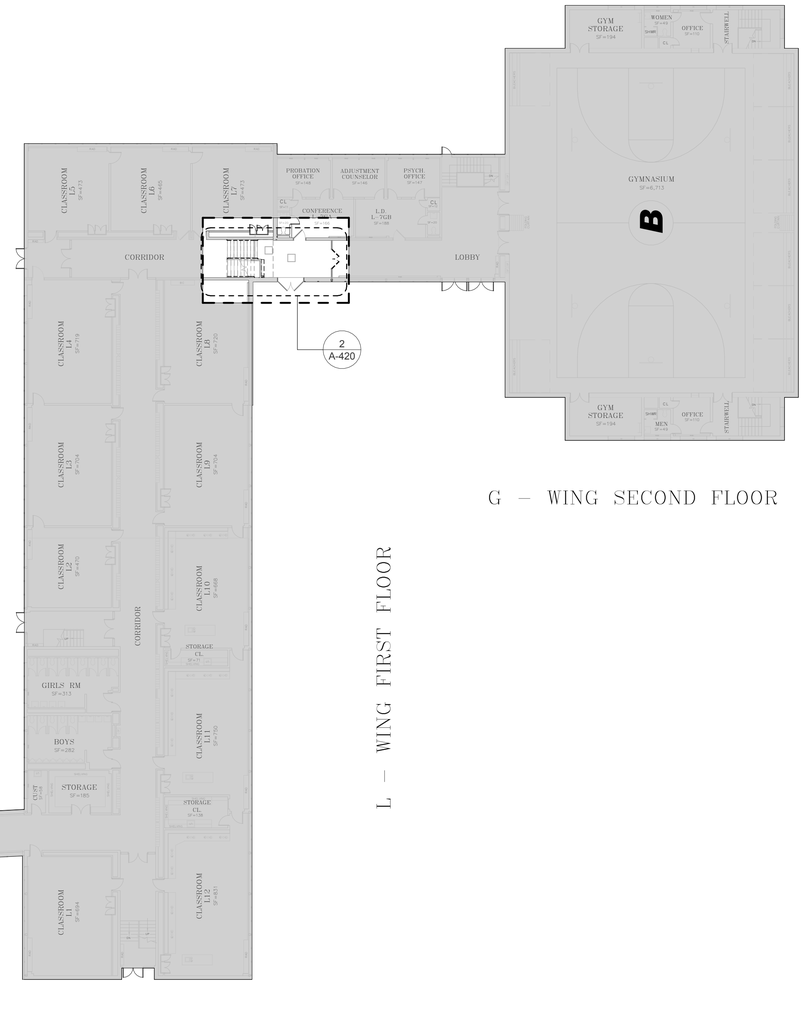
TABLE 1.0 SUMMARY OF ACM TO BE ABATED				
#	**LOCATION**	**COMPONENT**	**QUANTITY**	**NOTES**
1	Door 1	Door Unit - Caulking and Glazing Compound	Refer to Drawings	• Includes removal of the door, transom and frame down to the rough opening. • Refer to the Drawings and coordinate all work with the General Contractor.
2	Door 23	Door Unit - Caulking and Glazing Compound	Refer to Drawings	• Includes removal of the door and framework down to the rough opening. • Refer to the Drawings and coordinate all work with the General Contractor.

END OF SECTION



A – WING FIRST FLOOR

C – WING FIRST FLOOR



G – WING SECOND FLOOR

L – WING FIRST FLOOR

A1 **1ST FLOOR - DEMO PLAN**

SCALE: 1" = 20'-0"

0 10' 20' 40'

KEY NOTES

2.08	REMOVE EXISTING DOOR, FRAME TO REMAIN.
2.11	REMOVE EXISTING LIGHT FIXTURE.
2.18	REMOVE PORTION OF EXISTING PAVING.
2.35	DOOR AND FRAME TO BE REMOVED IN ITS ENTIRETY BY ABATEMENT CONTRACTOR. GC TO COORDINATE.

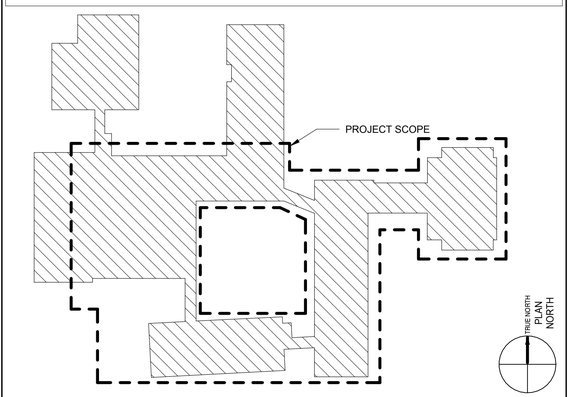
DEMOLITION FLOOR PLAN LEGEND

- EXISTING CONSTRUCTION TO BE DEMOLISHED
- EXISTING WALL CONSTRUCTION TO REMAIN
- EXISTING DOOR TO REMAIN
- EXISTING DOOR TO BE DEMOLISHED
- EXISTING WINDOW TO REMAIN
- EXISTING WINDOW TO BE DEMOLISHED
- LIMIT OF WORK

SELECTIVE DEMOLITION NOTES

1. EXISTING TO REMAIN: PROTECT CONSTRUCTION INDICATED TO REMAIN AGAINST DAMAGE AND SOILING DURING SELECTIVE DEMOLITION.
2. EXCEPT FOR ITEMS OR MATERIALS INDICATED TO BE REUSED, SALVAGED, REINSTALLED, OR OTHERWISE INDICATED TO REMAIN THE OWNER'S PROPERTY, DEMOLISHED MATERIALS SHALL BECOME THE CONTRACTORS PROPERTY AND SHALL BE REMOVED LEGALLY FROM THE SITE WITH FURTHER DISPOSITION AT THE CONTRACTOR'S OPTION.
3. IF UNANTICIPATED EXISTING BUILDING ELEMENTS THAT CONFLICT WITH THE INTENDED FUNCTION OR DESIGN ARE ENCOUNTERED, INVESTIGATE AND MEASURE THE NATURE AND EXTENT OF THE CONFLICT. PROMPTLY SUBMIT A WRITTEN REPORT TO THE ARCHITECT.
4. MAINTAIN EXISTING UTILITIES THAT ARE TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS.
5. UTILITY REQUIREMENTS: COORDINATE WITH MECHANICAL AND ELECTRICAL WORK FOR SHUTTING OFF, DISCONNECTING, REMOVING, SEALING OR CAPPING UTILITY SERVICES. DO NOT START SELECTIVE DEMOLITION WORK UNTIL UTILITY DISCONNECTION AND SEALING HAVE BEEN COMPLETED AND VERIFIED IN WRITING.
6. COORDINATE WITH ELECTRICAL SUB-CONTRACTOR WITH RESPECT TO ELECTRICAL DEMOLITION AND DE-ENERGIZING OF PARTICULAR PORTIONS OF THE BUILDING.
7. DRAIN, PURGE, OR OTHERWISE REMOVE, COLLECT AND DISPOSE OF ALL LIQUIDS (WITH THE EXCEPTION OF WASTE OIL AND RESIDUAL SLUDGE WHICH MAY BE PRESENT IN EXISTING MECHANICAL PIPING), AND REFUSE, BEFORE PROCEEDING WITH SELECTIVE DEMOLITION OPERATIONS.
8. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO EXISTING BUILDING COMPONENTS AND FACILITIES SET TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREAS.
9. ERECT TEMPORARY PROTECTION, SUCH AS WALKWAYS, FENCES, RAILINGS, CANOPIES, AND COVERED PASSAGEWAYS, WHERE REQUIRED.
10. ALL DEMOLITION ACTIVITIES WILL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS, INCLUDING BUT NOT LIMITED TO MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (MADEP) REGULATIONS FOR SOLID WASTE MANAGEMENT, HAZARDOUS WASTE MANAGEMENT, AND AIR QUALITY CONTROL, OSHA, AND MASS. STATE BUILDING CODE.
11. NEATLY SAW-CUT OPENINGS AND HOLES PLUMB, SQUARE, AND TRUE TO DIMENSIONS REQUIRED. USE CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION-TO-REMAIN OR ADJOINING CONSTRUCTION. TO MINIMIZE DISTURBANCE OF ADJACENT SURFACES, USE HAND OR SMALL POWER TOOLS DESIGNED FOR SAWING OR GRINDING, NOT HAMMERING AND CHOPPING. TEMPORARILY COVER OPENINGS TO REMAIN.
12. DO NOT USE CUTTING TORCHES UNTIL WORK AREA IS CLEARED OF FLAMMABLE MATERIALS. AT CONCEALED SPACES, SUCH AS DUCT AND PIPE INTERIORS, VERIFY CONDITION AND CONTENTS OF HIDDEN SPACE BEFORE STATING FLAME CUTTING OPERATIONS. MAINTAIN PORTABLE FIRE SUPPRESSION DEVICES DURING FLAME CUTTING OPERATIONS.
13. LOCATE SELECTIVE DEMOLITION EQUIPMENT THROUGHOUT THE STRUCTURE AND REMOVE DEBRIS AND MATERIALS SO AS NOT TO IMPOSE EXCESSIVE LOADS ON SUPPORTING WALLS, FLOORS, OR FRAMING.
14. SWEEP THE BUILDING BROOM CLEAN ON A DAILY BASIS AND AT THE COMPLETION OF SELECTIVE DEMOLITION OPERATION.
15. CONTRACTOR TO COORDINATE WITH ABATEMENT CONTRACTOR TO MAKE AREAS OF ABATEMENT SAFE. 1

KEY PLAN (NOT TO SCALE)



HABEEB & ASSOCIATES ARCHITECTS
H&A
150 LONGWATER DR
NORWELL, MA 02061
100 GROVE ST # 303
WORCESTER, MA 01605
781.871.9804
habeebarch.com

BURNCOAT MIDDLE SCHOOL ACCESSIBILITY RENOVATIONS

WORCESTER PUBLIC SCHOOLS

135 BURNCOAT ST
WORCESTER, MA 01606

REVISIONS

Δ	MM-DD-YYYY	DESCRIPTION
1	6/14/24	Addendum #1

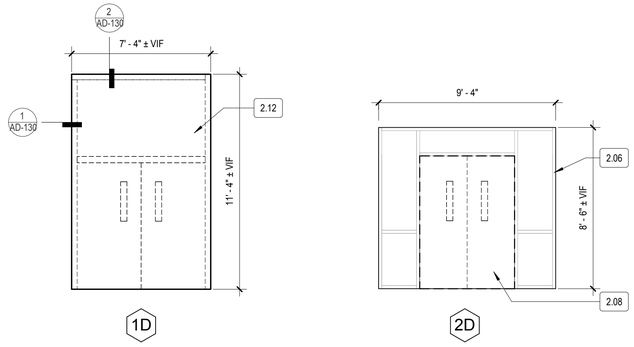
PROJECT NO:	2124.15
DATE:	05/22/24
SCALE:	AS INDICATED
DRAWN BY:	TP
CHECKED BY:	KP

FIRST FLOOR DEMOLITION PLAN

AD-110

This Border is intended for a 22" x 34" sheet. If printed sheet size differs, refer to graphic bar scales only.

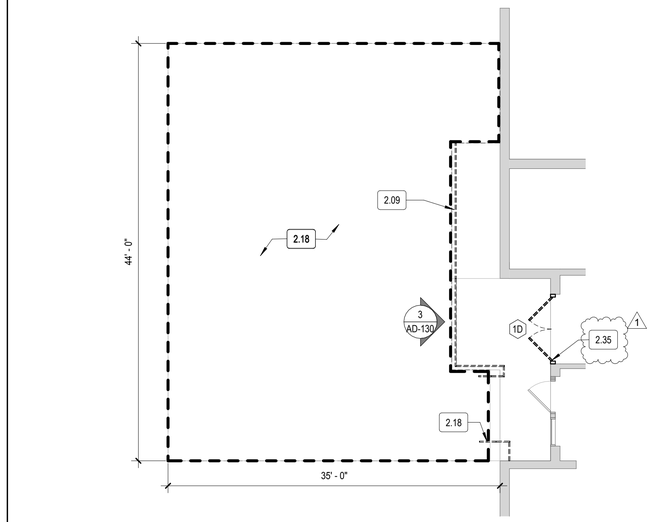
PLOTTED ON: 6/17/2024 2:02:37 PM



7 OPENING TYPES - DEMO

SCALE: 1/4" = 1'-0"

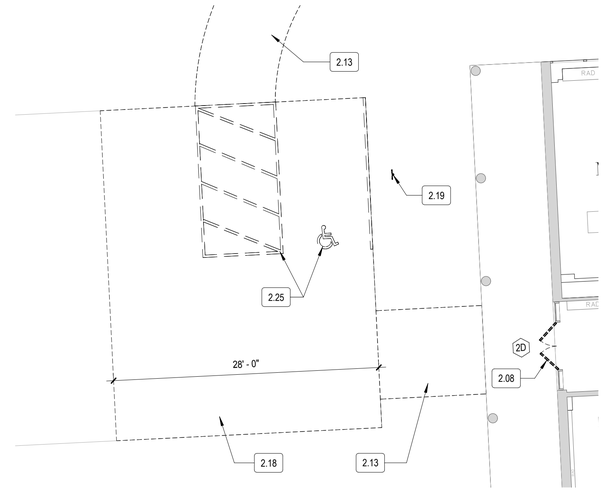
0 2' 4' 8'



6 REAR ENTRY PARKING DEMO WORK

SCALE: 1/8" = 1'-0"

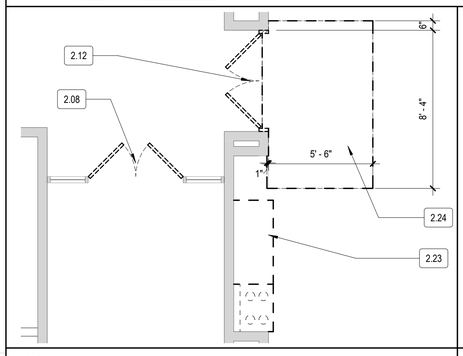
0 4' 8' 16'



5 FRONT ENTRY PARKING DEMO WORK

SCALE: 1/8" = 1'-0"

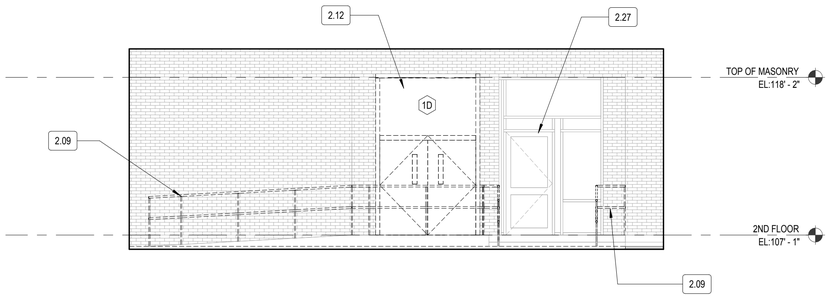
0 4' 8' 16'



4 CLASSROOM DEMO WORK

SCALE: 1/4" = 1'-0"

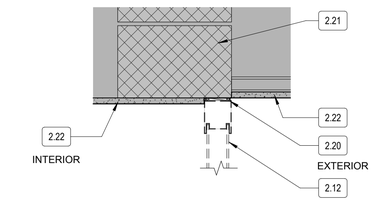
0 2' 4' 8'



3 REAR ENTRY DEMOLITION ELEVATION

SCALE: 3/16" = 1'-0"

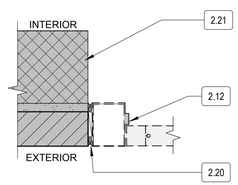
0 2' 4' 8'



2 DOOR HEAD DETAIL

SCALE: 1 1/2" = 1'-0"

0 1' 2'



1 DOOR JAMB DETAIL

SCALE: 1 1/2" = 1'-0"

0 1' 2'

DEMOLITION FLOOR PLAN LEGEND

- EXISTING CONSTRUCTION TO BE DEMOLISHED
- EXISTING WALL CONSTRUCTION TO REMAIN
- EXISTING DOOR TO REMAIN
- EXISTING DOOR TO BE DEMOLISHED
- EXISTING WINDOW TO REMAIN
- EXISTING WINDOW TO BE DEMOLISHED
- LIMIT OF WORK

SELECTIVE DEMOLITION NOTES

1. EXISTING TO REMAIN: PROTECT CONSTRUCTION INDICATED TO REMAIN AGAINST DAMAGE AND SOILING DURING SELECTIVE DEMOLITION.
2. EXCEPT FOR ITEMS OR MATERIALS INDICATED TO BE REUSED, SALVAGED, REINSTALLED, OR OTHERWISE INDICATED TO REMAIN THE OWNER'S PROPERTY, DEMOLISHED MATERIALS SHALL BECOME THE CONTRACTORS PROPERTY AND SHALL BE REMOVED LEGALLY FROM THE SITE WITH FURTHER DISPOSITION AT THE CONTRACTOR'S OPTION.
3. IF UNANTICIPATED EXISTING BUILDING ELEMENTS THAT CONFLICT WITH THE INTENDED FUNCTION OR DESIGN ARE ENCOUNTERED, INVESTIGATE AND MEASURE THE NATURE AND EXTENT OF THE CONFLICT. PROMPTLY SUBMIT A WRITTEN REPORT TO THE ARCHITECT.
4. MAINTAIN EXISTING UTILITIES THAT ARE TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS.
5. UTILITY REQUIREMENTS: COORDINATE WITH MECHANICAL AND ELECTRICAL WORK FOR SHUTTING OFF, DISCONNECTING, REMOVING, SEALING OR CAPPING UTILITY SERVICES. DO NOT START SELECTIVE DEMOLITION WORK UNTIL UTILITY DISCONNECTION AND SEALING HAVE BEEN COMPLETED AND VERIFIED IN WRITING.
6. COORDINATE WITH ELECTRICAL SUB-CONTRACTOR WITH RESPECT TO ELECTRICAL DEMOLITION AND DE-ENERGIZING OF PARTICULAR PORTIONS OF THE BUILDING.
7. DRAIN, PURGE, OR OTHERWISE REMOVE, COLLECT AND DISPOSE OF ALL LIQUIDS (WITH THE EXCEPTION OF WASTE OIL AND RESIDUAL SLUDGE WHICH MAY BE PRESENT IN EXISTING MECHANICAL PIPING), AND REFUSE, BEFORE PROCEEDING WITH SELECTIVE DEMOLITION OPERATIONS.
8. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO EXISTING BUILDING COMPONENTS AND FACILITIES SET TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREAS.
9. ERECT TEMPORARY PROTECTION, SUCH AS WALKWAYS, FENCES, RAILINGS, CANOPIES, AND COVERED PASSAGEWAYS, WHERE REQUIRED.
10. ALL DEMOLITION ACTIVITIES WILL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS, INCLUDING BUT NOT LIMITED TO MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (MADEP) REGULATIONS FOR SOLID WASTE MANAGEMENT, HAZARDOUS WASTE MANAGEMENT, AND AIR QUALITY CONTROL, OSHA, AND MASS. STATE BUILDING CODE.
11. NEATLY SAW-CUT OPENINGS AND HOLES PLUMB, SQUARE, AND TRUE TO DIMENSIONS REQUIRED. USE CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION-TO-REMAIN OR ADJOINING CONSTRUCTION. TO MINIMIZE DISTURBANCE OF ADJACENT SURFACES, USE HAND OR SMALL POWER TOOLS DESIGNED FOR SAWING OR GRINDING, NOT HAMMERING AND CHOPPING. TEMPORARILY COVER OPENINGS TO REMAIN.
12. DO NOT USE CUTTING TORCHES UNTIL WORK AREA IS CLEARED OF FLAMMABLE MATERIALS. AT CONCEALED SPACES, SUCH AS DUCT AND PIPE INTERIORS, VERIFY CONDITION AND CONTENTS OF HIDDEN SPACE BEFORE STATING FLAME CUTTING OPERATIONS. MAINTAIN PORTABLE FIRE SUPPRESSION DEVICES DURING FLAME CUTTING OPERATIONS.
13. LOCATE SELECTIVE DEMOLITION EQUIPMENT THROUGHOUT THE STRUCTURE AND REMOVE DEBRIS AND MATERIALS SO AS NOT TO IMPOSE EXCESSIVE LOADS ON SUPPORTING WALLS, FLOORS, OR FRAMING.
14. SWEEP THE BUILDING BROOM CLEAN ON A DAILY BASIS AND AT THE COMPLETION OF SELECTIVE DEMOLITION OPERATION.
15. CONTRACTOR TO COORDINATE WITH ABATEMENT CONTRACTOR TO MAKE AREAS OF ABATEMENT SAFE. (1)

KEY NOTES

2.06	EXISTING DOOR FRAME TO REMAIN.
2.08	REMOVE EXISTING DOOR, FRAME TO REMAIN.
2.09	REMOVE EXISTING GUARDRAIL.
2.12	REMOVE EXISTING DOOR, FRAME, AND THRESHOLD IN ITS ENTIRETY.
2.13	REMOVE EXISTING WALKWAY.
2.18	REMOVE PORTION OF EXISTING PAVING.
2.19	REMOVE EXISTING ADA SIGNAGE, STORE FOR REUSE.
2.20	REMOVE EXISTING SEALANT AND SHIMS.
2.21	EXISTING MASONRY WALL TO REMAIN.
2.22	EXISTING CEILING TO REMAIN.
2.23	REMOVE EXISTING CASEWORK AND OVEN, OVEN SHALL BE RETURNED TO OWNER.
2.24	REMOVE PORTION OF RAISED FLOOR.
2.25	REMOVE EXISTING PARKING STRIPING.
2.27	EXISTING DOOR AND FRAME TO REMAIN.
2.35	DOOR AND FRAME TO BE REMOVED IN ITS ENTIRETY BY ABATEMENT CONTRACTOR. GC TO COORDINATE.

HABEEB & ASSOCIATES ARCHITECTS
H&A
150 LONGWATER DR
NORWELL, MA 02061
100 GROVE ST # 305
WORCESTER, MA 01605
781.871.9804
habeebarch.com

BURNCOAT MIDDLE SCHOOL ACCESSIBILITY RENOVATIONS

WORCESTER PUBLIC SCHOOLS

135 BURNCOAT ST
WORCESTER, MA 01606

REVISIONS

Δ	MM-DD-YYYY	DESCRIPTION
1	6/14/24	Addendum #1

PROJECT NO: 2124.15

DATE: 05/22/24

SCALE: AS INDICATED

DRAWN BY: TP

CHECKED BY: KP

ENLARGED DEMOLITION PLANS, DETAILS, AND ELEVATIONS

AD-130