Hazardous Materials Abatement Specification

Revision 1

Naval Support Activity Building 602 – Levels 1 and 2
4400 Dauphine Street
New Orleans, Louisiana

July 17, 2025 | Terracon Project Number: ET247244
EPA Brownfields Cooperative Agreement 4B02F44601

Prepared for:

City of New Orleans, Louisiana
New Orleans, Louisiana

Prepared By:

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1.0 Introduction

The purpose of this Hazardous Materials Abatement Specification (Specification) is to provide recommended general practices and procedures associated with asbestos-containing materials (ACM), lead containing paint (LCP), and other wastes and/or removal and disposal activities planned at the subject structure.

Terracon will not be responsible for the AC's means or methods used during the proposed demolition and abatement activities. However, Terracon will provide on-site, observation throughout the duration of the work to document site activities the AC's compliance with all federal, state, and local regulations and these specifications.

1.1 Contract Documents and Related Requirements

The term Contract Documents is defined as this Specification in addition to all documents provided by the Owner. The extent of work will also be performed in accordance with the related requirements, and conditions impacting the project. Related requirements and conditions include, but are not limited to all applicable federal, state, and local codes and regulations, required notices and permits, restrictions on use of the property, requirements for partial owner occupancy during the work, and coordination of the work with other contractors and phasing of the work. Whenever there is a conflict or overlap of the above references, or federal, state, and local regulations, the most stringent provisions apply.

1.2 General

The abatement contractor (AC) is solely responsible for site safety, site security, personal protection of their workers and all work practices. The AC is solely responsible for adherence to the specifications and all relevant federal, state, and local regulations. Any deficiencies noted will be brought to the attention of the owner and will be properly addressed by the AC at no additional expense to owner.

The AC, by submitting the bid, is stating that they understand responsibility under all Federal, State, and Local laws and regulations with regards to the work, and worker safety, including proper work practices, training, medical surveillance, etc.

The AC further understands that it is the AC's responsibility to make all supervisors and workers assigned to duties on the project for which this bid has been submitted aware of their duties under the Contract Documents, Project Specifications, other documents presented as part of this project and all Federal, State, and Local laws and regulations.

The AC agrees to transmit to the Owner a copy of all notifications, waiver requests, certificates of workers participating on the project, waste disposal authorization, etc., and all other documents that Owner is legally required to maintain about this project.

All operations and work performed on the project will be conducted using industry standards, and shall fully comply with all Federal, State, and Local laws and regulations.

The AC is responsible to call to the Owner's attention, any omissions or errors noted in the specifications or scope of work that is at variance with the intent of the bid documents, the project, or any Federal, State, or Local laws or regulations.

Estimated quantities of hazardous materials are provided. These quantities are for informational purposes only and are based on the best information available at the time of the Specification preparation. The AC shall satisfy themself as to the actual quantities to be treated/abated. The AC is responsible for actual quantities for their notifications. Nothing in this section may be interpreted as limiting the extent of the work that may otherwise be required by the Contract Documents. If additional work is determined to be required, it will be performed at the discretion of the Owner, and only after written approval from the Owner.

Drawings are provided for the approximate locations of selected hazardous materials. The drawings may not be to scale, and not all features of the space will be included. The purpose of the drawings is to locate the general location and type of hazardous materials to be removed. Some locations of hazardous materials (especially exterior material) may not be included on the drawings. Carpets, wood, or tiles over asbestos flooring material may not be included or indicated on the drawings. It will be the AC's responsibility to determine the work necessary to complete the required removals.

The specifications, scope of work, etc. are not intended to fully describe nor fully illustrate the material, labor, and equipment necessary to perform the work. These documents represent the Owner's best estimate of the extent and presence of hazardous materials to be removed during this project. It is the responsibility of the AC to determine the precise linear footage, number of mudded fittings, square footage of hazardous materials, etc., for bidding purposes. No extra compensation will be allowed for differences between the best estimate and actual quantities of material identified in this specification to be removed. All hazardous materials are to be removed from the building.

The listing or mention of any method of installation, erection, fabrication, or workmanship shall not operate to make Terracon an agent of the Owner or AC but shall be for the sole purpose of setting a standard of quality for the finished work. Alternate methods may be approved in writing by the Owner provided quality is not compromised.

The AC informs themselves of the conditions under which the work is to be performed at the worksite and all obstacles which may be encountered during the work. Bidders shall also inform themselves of all other relevant matters concerning the work to be performed, and, the bidder, if awarded the contract, shall not be allowed any extra compensation by reason of any matter or thing concerning which the bidder might have fully informed themselves, but failed to do so prior to bidding.

Federal, State, and Local laws and regulations always supersede any contradictory information in the scope of work or specifications. The scope of work and bid requirements supersedes the specifications.

The AC agrees that any time a violation of Federal, State, and/or Local laws or regulation, or a variance from the Contract Documents, Project Specifications or other documents presented as part of this project is brought to their attention, such violation or variance will be corrected immediately. A violation or variance not corrected immediately may result in suspension of the AC by the Owner from the Work.

All debris and furnishings located within areas not classified as asbestos contaminated debris (ACD) shall be cleared from the designated work zones prior to the commencement of asbestos abatement and lead-containing paint remediation activities.

2.0 Asbestos Abatement

2.1 Regulatory Overview

Asbestos removal shall be conducted according to all applicable Federal, State, and local rules/regulations, including but not limited to Asbestos National Emission Standards for Hazardous Air pollutants (NESHAP 40 CFR Part 61, Subpart M); Occupational Safety and Health Administration (OSHA) regulations under 29 CFR 1910.1001 and 1926.1101; and Louisiana Administrative Code (LAC) Title 33, Part III, Chapter 27, and Chapter 51 Subchapter M.

Any individual or company contracted to perform a demolition or renovation activity that disturbs ACM/ACD above the minimum thresholds must be recognized and currently licensed by the Louisiana Licensing Board for Contractors to perform asbestos abatement.

2.2 Scope of Work

The scope of work should include all labor, materials, and equipment necessary for the complete removal of the identified ACM by competent persons who are trained, knowledgeable, qualified, and currently licensed and accredited in the techniques of abatement, handling and disposal of asbestos containing debris and asbestos-contaminated materials, and the subsequent cleaning of contaminated areas.

The abatement contractor (AC), will furnish all labor, supervision, materials, services, insurance, equipment, lighting, and emergency lighting necessary for the total removal of the areas of ACM summarized below in Table 1. Should additional ACM or suspect be encountered, these materials should be reported to the Owner and Terracon and are subject to this specification.

Table 1

Material Description	Material Location	Condition	NESHAP Category	Estimated Quantity of ACM
Maroon 9”x9” floor tile with black mastic	Cafeteria Kitchen and Dining Area	Damaged	RACM	7,500 SF
Light Brown 12’x12’ floor tile with black mastic	Corridors, Offices beneath carpet and/or 12”x12”, tan floor tile	Good	CAT I NF	55,000 SF
Black waterproofing beneath bathroom floor	Bathrooms	Good	CAT II NF	6,000 SF
Black stud adhesive	At ceiling/wall junctions	Good	CAT II NF	40,000 SF

The AC shall submit a copy of the most current AAC-2 (a) form upon receipt of a Notice-to-Proceed. The AAC-2 (a) form must be either postmarked or hand delivered to the Louisiana Department of Environmental Quality (LDEQ) at least 10 working days prior to the scheduled dates of asbestos

removal. After proper notification is received, the LDEQ will issue the requested number of Asbestos Disposal Verification Form (ADVF) to provide approval to begin abatement and to ensure that the ACM removed is handled and disposed properly. The ADVFs must be onsite during all abatement activities.

2.3 General Work Sequence

The AC is responsible for their own work practices utilized for this work. A general work sequence to accomplish the proposed abatement activities described in this work plan document is as follows:

- The AC shall perform abatement using worker protection and work practices generally used in the industry and as required by applicable regulations.
- Terracon will collect ambient air samples outside of the work area throughout abatement activities. Terracon will have the ambient air samples analyzed by Phase Contrast Microscopy (PCM) using a modified National Institute for Occupational Safety and Health (NIOSH) Method 7400 and provide PCM results in the close-out report following the completion of the work.
- After the abatement is complete, the AC shall conduct a visual assessment to ensure the work area is free of all ACM debris. If the AC determines that the area is visibly clean, Terracon shall perform a final visual assessment to confirm that abatement has been completed and that all surfaces are free of visible residue, dust, debris, and asbestos-contaminated equipment and waste.
- At the conclusion of abatement activities and Terracon's final visual assessment within each work area and collect PCM air clearance samples.
- All PCM clearance air samples will be analyzed by the National Institute for Occupational Safety and Health (NIOSH) Method 7400 by a National Voluntary Laboratory Accreditation Program (NVLAP) and Louisiana Environmental Laboratory Accreditation Program (LELAP) accredited laboratory.
- After passing the air clearance testing, the AC will remove all work barriers and equipment and perform a final cleaning as necessary.

2.4 Worker Certification and Training

The AC must possess the following documents for all workers, including supervisory personnel, prior to the start of project:

1. Current (within 1 year) physician's approval to wear a respirator.
2. Respirator fit test certification (within 1 year).
3. Asbestos worker training certificates.

Copies of the documents must be submitted to the Owner prior to project start.

2.5 Worker Protection

The AC shall provide workers with personally issued and marked respiratory equipment approved by the National Institute for Occupational Safety and Health (NIOSH) and suitable for asbestos exposure levels

in the work areas according to OSHA Standard 29 CFR 1926.1101 and other possible contaminants employees might be exposed to during the project.

The minimum respiratory protection for this project shall be half-face air purifying respirators (APRs) with HEPA filters. For using the half-face, negative pressure APRs, supply a sufficient quantity of respirator HEPA filters (P100), so that workers can change filters as necessary. Store respirators and filters at the job site in the changing room and protect totally from exposure to lead prior to their use. Respirator cartridges must be replaced whenever a worker experiences increased breathing resistance.

Respirator fit testing shall be performed as a minimum at the beginning of the project, at any change in respiratory protection equipment, and at any time during the project if requested by the employee.

Do not allow the use of single-use, disposable or quarter-face respirators for any purpose.

The AC shall provide workers with sufficient sets of protective disposable clothing, consisting of full-body coveralls, integral head/foot covers, and gloves in sizes to properly fit individual workers. All persons performing abatement work shall don two layers of disposable clothing over street clothes or undergarments before entering the work area. Protective clothing shall be secured (for example, taped) to ensure that skin or street clothing is not exposed.

The AC shall provide additional PPE, as necessary, including, but not limited to ear, eye, and head protection, as required by job conditions and by applicable safety regulations.

The AC shall not, under any circumstances, permit any person to enter abatement work areas without the appropriate protective clothing and equipment during removal and cleaning of designated areas.

Provide worker protection as required by OSHA, state and local standards applicable to the work. The AC is solely responsible for enforcing worker protection requirements at least equal to those specified in this section.

Each time the work area is entered the AC shall require all persons to put on new disposable coveralls, new head cover, and a clean respirator. Protective clothing may be worn over street clothes.

Workers shall not eat, drink, smoke, chew gum or chew tobacco in the work areas, the equipment rooms, the load out areas, or the clean rooms.

Whenever personnel exit the work area(s), they shall perform the following procedures and shall not leave the workplace wearing any clothing or equipment worn during the work day:

1. Vacuum themselves off using a HEPA vacuum.
2. Remove protective clothing in the contaminated change room and place them in an approved impermeable disposal bag within the dirty room of decontamination unit.
3. Wash hands and face within the shower room, don appropriate disposable or uncontaminated reusable clothing.
4. Change to clean clothes prior to leaving the clean room.

2.6 Work Area Preparation and Equipment

Removal of the ACM to be performed in general accordance with applicable federal, state, and local regulations. The ACM to be removed intact without unnecessary damage. The removal is to consist of performing the abatement following OSHA CLASS I Procedures, OSHA Class II Procedures, and LAC 33:III.5151 and dispose of all asbestos-containing materials summarized in TABLE 1.0.

The AC shall completely isolate the work area for the duration of the work by using critical barriers (6 mil poly) and sealing off all openings and fixtures in the work area including, but not limited to, heating and ventilation supply air ducts and diffusers and return air ducts and grilles (any existing HVAC system should be totally de-energized – no HVAC system airflow into or out of work area), common return air plenums, doorways, corridors, windows, skylights, and lighting with polyethylene sheeting held securely in place.

The AC will be required to keep the ACM sufficiently wet with amended water during the removal process. The AC shall establish a negative air pressure differential inside the enclosed areas relative to interior areas outside the containment before abatement activities begin. No air must flow from inside the enclosed work area to the area outside the work area within the building. The AC shall ensure that negative air pressure differential is maintained until Terracon has determined that abatement activities are complete.

All workers and authorized personnel shall enter the work area through the decontamination system. The decontamination system shall consist of three rooms as follows: 1) clean room at entrance, 2) shower room at center with functioning water, 3) and equipment/decontamination room leading into the work area. Each room should be separated by constructing an air lock from polyethylene sheeting. A sign in/sign out log must be maintained for any personnel entering the containment.

The air filtration devices used shall contain new high efficiency particulate air (HEPA) and optional pre-filters, as part of the exhaust ventilation system to develop and maintain the specified desired air pressure differential inside the enclosed work areas relative to the outside areas. Used filters shall be bagged and disposed as contaminated waste once abatement is complete.

The exhaust ventilation system within the containment area shall be capable of maintaining a minimum differential pressure of minus 0.02-inches of water gauge and a minimum of four (4) air exchanges per hour. The air pressure differential should be maintained throughout the work area for the duration of the project until clearance is provided by Terracon. The AC shall submit the air exchange calculations stating the number of air filtration devices to be used to maintain the minimum of four air exchanges per hour within the containment to Terracon for review.

All exhausted air from any air filtration device unit located within the work area containment shall be discharged to the outside environment. Any windows or doors that are used for discharge openings will need to maintain the airtight containment seal.

2.7 Asbestos Post-Work Procedures

The following procedures should be followed prior to final visual clearance:

Once removed, the ACM shall be visibly wet and placed in a double walled, labeled, goosenecked, transparent container before being removed from the designated work area. Sufficient container will be a bag within a bag, such as the outer bag is labeled as contents contain asbestos.

Removal of bagged ACM from the work area. All bagged ACM should be stored in a regulation approved disposal container.

After abatement is complete, Terracon will conduct a visual assessment to ensure the work area is visibly clean of all ACM debris. If the AC deems the area clean, Terracon will perform a final visual assessment to confirm that abatement has been completed and all surfaces are free of visible residue, dust, debris, and asbestos contaminated equipment and waste. The visual inspection will be performed in general accordance with applicable regulations and standard practices included in most recent ASTM E1368.

After a final visual inspection is confirmed by Terracon an EPA registered lock-down encapsulant shall be applied to all remaining post abatement surfaces. Encapsulant requires a minimum 8-hour setting time, preferably overnight.

Only, after visual clearance is achieved within a work area, the work area may undergo air clearance sampling.

The AC shall follow the requirements of 29 CFR 1910.120 (OSHA).

2.8 Air Monitoring

2.8.1 Personnel Air Sampling

It is the responsibility of the AC performing abatement to perform personal air monitoring to document their employees' exposures to airborne asbestos fibers per 29 CFR 1910.120 (OSHA).

2.8.2 Work Area Air Sampling

While abatement activities are being performed within the established work areas, air samples will be collected to monitor the concentration of airborne asbestos fibers outside of the work areas. Air samples shall be collected continuously while abatement work is being performed. The fiber concentration outside the work areas shall not exceed the EPA standard of 0.01 fibers per cubic centimeter (f/cc) of air. PCM sampling will be conducted at a flow rate of 2.0 - 12.0 LPM, the sampling volume shall be a minimum of 450 liters. Daily ambient area air sampling will include areas outside of the work area and may be altered to best fit site situations.

The number of daily air samples will be at the discretion of Terracon and will be determined by daily work activities.

If fiber concentrations exceed 0.01 f/cc by any ambient air sample, Terracon will have "stop work" authority to review current work procedures and assist the AC in rectifying. Recommendations may include revising worker exposure protection level, proper personal protective equipment (PPE), containment construction, exhaust systems and/or review of abatement work activities (including wet method, removal method, and housekeeping).

2.8.3 Clearance Air Sampling

After abatement activities have been completed, including the application of the lock-down agent, the air filtration devices will continue to operate prior to performing clearance sampling. Final air clearance sampling shall include a minimum of five PCM area samples from inside the work area(s). The

sampling volume shall be a minimum of 3,000 liters obtained with a flow rate of 10 to 16 liters per minute. All final air samples shall be submitted under proper chain of custody to a NVLAP and LELAP accredited laboratory for NIOSH 7400 analysis. Passing criteria will be defined as less than or equal to 0.01 f/cc for each sample.

Abatement work in an area is complete when the work area has passed the final visual observations and airborne fiber levels of final clearance air samples do not exceed 0.01 f/cc.

If clearance results are more than this limit, the work area will be thoroughly cleaned and resampled at the expense of the AC. Following the successful completion of final visual observations and PCM clearance sampling, the air monitor will document all findings.

2.9 Asbestos Waste Disposal

The AC shall comply with federal, state, and local regulations regarding the storage, transportation, and disposal of asbestos waste materials. All asbestos waste and debris shall be visibly wet, double–bagged using the "goose-neck" technique and placed in a double lined dumpster or waste storage unit. Dumpsters and waste storage units shall be secured and checked daily. All asbestos waste storage units and dumpsters shall comply with applicable federal, state, and local regulations and be identified with signs and barriers.

2.10 Asbestos Close-Out Documents

Upon completion of abatement activities, the abatement AC shall submit close-out documents to the owner. Close-out documents include notification of demolition/renovation, physician approvals, respirator fit test certificates, State of Louisiana Asbestos AC/Supervisor's and Worker's licenses, OSHA personal sampling results, signed waste shipment manifests/ADVF forms, AC's license, safety data sheets (SDS) for solvents, lockdown agents, wetting agents, etc. utilized by the abatement AC, and sign-in sheets of personnel. Terracon will prepare a written abatement completion report for submittal to the Owner.

3.0 Lead in Paint

Lead was identified in various component coatings throughout the facility. For the purposes of this document, the terms 'leaded paint,' 'lead-containing paint,' and 'lead in paint' shall be considered synonymous in this specification.

3.1 Regulatory Overview

In accordance with EPA 745.223(4) and LAC Chapter 28, abatement of all LCP is not required for renovation projects. However, renovation activities may involve the disturbance of LCP and/or lead-containing paint and the possibility of creating lead dust as an immediate occupational hazard. Therefore, construction work, including maintenance, painting, alteration, repairs, or demolition activities in connection with paints and/or coatings with any detectable concentration of lead is subject to OSHA (29 CFR 1926.62). Employee exposure in construction has a permissible exposure limit (PEL) of 50 micrograms per cubic meter of air (50 µg/m^3) measured as an 8-hour time-weighted average (TWA). Work disturbing any lead-containing paint or lead painted component requires those employing personnel performing this work on site to institute administrative, engineering and work practice controls as the primary means to reduce and maintain employee exposures to levels below the PEL. The employer also must ensure that employees wear the respiratory protection provided when it is required. The employer must provide and maintain on-site a written compliance program.

The compliance program must document medical surveillance provided by the employer for employees who are or may be exposed at or above the action level for more than thirty (30) days in any consecutive twelve (12) months. The compliance program must contain data documenting initial or negative exposure assessment, or objective data showing employees are not exposed at or above the PEL. The plan must include respiratory protection, housekeeping, and personal protective equipment to be worn for each job function based on the expected exposure level.

Demolition personnel and/or ACs should utilize lead-safe work practices pursuant to the OSHA Lead Standard (29 CFR 1926.62) when impacting lead-containing components. The full OSHA lead standard should be referenced for compliance.

The AC must ensure compliance with the USEPA lead regulation 40 CFR 745, lead national Ambient Air Quality Standards (NAAQS), and Title IV of the Toxic Substances Control Act (TSCA).

3.2 Scope of Work

The AC shall include all labor, materials, and equipment necessary to perform work in compliance with the OSHA Lead Standard (29 CFR 1926.62) when impacting lead-containing components.

The components prescribed treatments outlined in Table 2 shall be follow corresponding sections, 3.7 and 3.8, of this specification.

Table 2

Area	Component	Substrate	Color	Treatment
Level 1	Parking Stripes	Concrete	Yellow	Removal
Level 1 and 2	Columns	Concrete	White/Tan/Gray	Paint Stabilization
Level 1 and 2	Ceilings	Concrete	White/Tan/Gray	Paint Stabilization
Stairwells – Levels 1-2 (Bottom of Level 3 Deck Included)	Walls and Railing	Concrete/Metal	White/Gray	Paint Stabilization
Elevator Shafts – Levels 1-2 (Bottom of Level 3 Deck Included)	Walls	Concrete/Metal	Gray	Paint Stabilization

3.3 Worker Certification and Training

The AC's supervisor must be accredited as a Supervisor in accordance with Louisiana per Louisiana Administrative Code (LAC) Title 33, Chapter 28, §2807 and/or an EPA-certified renovator. Documented training must then be performed by the supervisor and/or competent person for the workers. Training shall be documented and performed in accordance with OSHA 1926.62(l)(2).

A competent person, as defined in the OSHA lead in construction standard 29 CFR 1926.62, employed by the AC must be on site during LCP activities to monitor activity, ensure security, provide information to visitors, and provide access to the work area.

Train all workers in accordance with 29 CFR 1926 regarding the dangers inherent in handling lead paint, breathing lead dust and fume, proper work procedures and personal and area protective measures.

3.4 Worker Protection

Provide workers with personally issued and marked respiratory equipment approved by the National Institute for Occupational Safety and Health (NIOSH) and suitable for the lead exposure levels in the work areas according to OSHA Standard 29 CFR 1926.62 and other possible contaminants employees might be exposed to during the project.

The minimum respiratory protection for this project shall be half-face air purifying respirators (APRs) with HEPA filters. For using the half-face, negative pressure APRs, supply a sufficient quantity of respirator HEPA filters (P100), so that workers can change filters as necessary. Store respirators and filters at the job site in the changing room and protect totally from exposure to lead prior to their use. Respirator cartridges must be replaced whenever a worker experience increased breathing resistance.

Respirator fit testing shall be performed as a minimum at the beginning of the project, at any change in respiratory protection equipment, and at any time during the project if requested by the employee.

Do not allow the use of single-use, disposable or quarter-face respirators for any purpose.
Provide worker protection as required by OSHA, state and local standards applicable to the work. The AC is solely responsible for enforcing worker protection requirements at least equal to those specified in this section.

Each time the work area is entered the AC shall require all persons to put on new disposable coveralls, new head cover, gloves, clean boots, and a clean respirator. Protective clothing may be worn over street clothes.

Workers shall not eat, drink, smoke, chew gum or chew tobacco in the work areas, the equipment rooms, the load out areas, or the clean rooms.

Whenever personnel exit the work area(s), they shall perform the following procedures and shall not leave the workplace wearing any clothing or equipment worn during the work day:

1. Vacuum themselves off using a HEPA vacuum.
2. Remove protective clothing in the contaminated change room and place them in an approved impermeable disposal bag.
3. Wash hands and face at the site, don appropriate disposable or uncontaminated reusable clothing.
4. Change to clean clothes prior to leaving the physical boundary designated around the lead control area.

Provide washing facilities to be used by all workers when exiting the work area.

1. Provide temporary sink with water supply.
2. Supply enough soap and towels for the workers and authorized visitors.

3.5 Work Area Preparation and General Work Practices

Completely isolate each work area from other parts of the building to prevent contamination beyond the work area.

Appropriate signage per 29 CFR 1926.62 shall be posted at entrances, critical barriers, and barrier tape for each work area.

Boundary Requirements: Provide physical boundaries around the lead control area by roping off the area designated in the work plan or providing curtains, portable partitions or other enclosures to ensure that airborne concentrations of lead will not reach 30 micrograms per cubic meter of air outside of the lead control area.

Perform work without damage or contamination of adjacent areas. Where existing work is damaged or contaminated, restore work to its original condition or better.

The AC must post signs clearly defining the work area and warning occupants and other persons not involved in LCP activities to remain outside of the work area. To the extent practicable, these signs must be in the primary language of the occupants. These signs must be posted before beginning the project and must remain in place and readable until project completion.

Before beginning work, the AC must isolate the work area utilizing 6-mil poly sheeting so that no dust or debris leaves the work area while the work is being performed. In addition, the AC must maintain the integrity of the containment by ensuring that any plastic or other impermeable materials are not torn or displaced, and taking any other steps necessary to ensure that no dust or debris leaves the work area while the renovation is being performed. The AC must also ensure that the work area is installed in such a manner that it does not interfere with occupant and worker egress in an emergency.

Work areas:

- Close all doors and windows within 20 feet of the work area, where applicable.
- Cover doors in use within the work zone with 6-mil polyethylene sheeting to allow access while containing dust and debris.
- Clean all horizontal surfaces within 20 feet of disturbed areas daily.
- Cover the ground with 6-mil polyethylene sheeting extending at least 10 feet beyond the treatment area or far enough to capture falling debris, unless limited by the property line. When using vertical containment, ground covering may end at the vertical barrier.
- For parking stripe paint removal, floor coverings are not feasible. However, install 6-mil polyethylene sheeting along the adjacent interior wall.
- Suspend work if wind speeds exceed 20 mph or if dust and debris cannot be effectively contained.
- Post warning signs at a 20-foot perimeter around the work area.

1. Prohibited removal methods:

    a. Open flame burning or torching (includes propane-fueled heat grids)
    b. Chemical stripping with methylene chloride-based paint strippers;
    c. Paint stripping in a poorly ventilated space using volatile stripper;
    d. Uncontained abrasive blasting;
    e. Heat guns operating above 1,100°F or charring the paint.
    f. Uncontained power washing;
    g. Dry sanding or scraping;
    h. Power sanding without HEPA attachment;
    i. Sanding of wood after using a chemical stripping agent.

3.6 Chemical Removal of Leaded Paints

A. When chemically removing lead-containing paint, the AC shall:

1. Utilize Enviro Klean® Safety Peel 1, DUMOND Peel Away 1®, or an EPA registered equal, in accordance with the recommendations of the manufacturer.

2. Final Cleaning of Surfaces: Prepare wet detergent wash. Workers must wear eye shields and chemically resistant gloves when working with this solution. Thoroughly scrub stripped surface to remove as much remaining lead residue as possible. Following wet detergent wash, perform a final wash with clear water to remove any traces of detergent. Sponges used in the clean-up process may not be reused and must be placed in double 4 mil or single 6 mil plastic bags, which will be sealed, labeled, and placed in the secure waste storage area. Surfaces must be allowed to dry thoroughly before repainting.

B. If the specified methods above are not feasible, the following shall apply:

1. Any Chemical Stripping Agents and neutralizers shall be applied in accordance with the recommendations of the manufacturer.

2. Caustic Stripper Neutralization: Caustic strippers shall be neutralized in accordance with manufacturer's recommendations. Provide workers with proper protective equipment, including but not limited to; protective clothing (non-paper), chemically resistant gloves, eye protection and respiratory protection with filters selected for the hazards to be encountered.

3. Remove Stripper Sludge: Place lead containing stripper sludge in corrosion-proof containers and place in a secure waste storage area. The surface from which lead-based paint has been removed shall be thoroughly scrubbed, while still damp from the stripper, in accordance with the manufacturer's recommendation. Monitor pH of the neutralizing solution to ensure it has not become neutralized in the process. If the pH exceeds 6.5, or the solution becomes overly soiled, change solution. The surface shall be tested with litmus paper following this process. If the litmus paper turns pink, the acid has effectively neutralized the alkali. If litmus turns blue continue scrubbing until satisfactory results are achieved.

4. Final Cleaning of Surfaces: Prepare wet detergent wash. Workers must wear eye shields and chemically resistant gloves when working with this solution. Thoroughly scrub stripped surface to remove as much remaining lead residue as possible. Following wet detergent wash, perform a final wash with clear water to remove any traces of detergent. Sponges used in the clean-up process may not be reused and must be placed in double 4 mil or single 6 mil plastic bags, which will be sealed, labeled, and placed in the secure waste storage area. Surfaces must be allowed to dry thoroughly before repainting. A grayish film indicates that significant lead residues remain and the cleaning process must be repeated. If a white powder appears, the surface is Alkaline and requires further neutralization.

5. Painting/sealing: After complete drying, prepare the substrate and seal all surfaces where lead-based paint was removed with a primer or encapsulant which is compatible with the substrate or as specified by the Owner and/or Architect.

3.7 Paint Stabilization

In instances where components require limited repair or preparation for painting, then the AC shall utilize the following methods:

3.7.1 Surface Preparation and Repair

A. Remove loose, flaking and deteriorated paint by wet scraping or wet sanding.

B. Remove loose, unsound or deteriorated substrates. Patch and fill as necessary to obtain a smooth, cleanable surface.

C. HEPA vacuum and/or wet wipe to remove all paint chips, debris and dust generated during the work. Do not allow dust or debris to accumulate.

3.7.2 Paint Stabilization

A. Paint Removal:

1. Wet Scraping: remove all loose, flaking and deteriorated paint by wet scraping. Continually mist surface with water during scraping.

2. Wet Sanding: prepare finish surface by wet sanding. Feather edges lightly. Keep surface wet while sanding.

B. Surface Cleaning:

1. Dust and chips: HEPA vacuum surface after drying.

3.8 Lead Post-Work Procedures

A. Final Cleaning:

1. HEPA Vacuum: All surfaces in work area. Start at point farthest from main entrance and finish vacuuming back at that point. Begin at top of each room and work down. Sequence to avoid passing through rooms already cleaned.

2. Mist critical barriers sheeting and remove.

3. HEPA vacuum area previously covered by critical barrier sheeting.

4. Perform wet detergent wash of all surfaces. Begin at point farthest from main entrance, work from top to bottom. Take care not to damage existing finishes and surfaces. Change cleaning mixture in accordance with manufacturer's recommendations or minimum after each room.

5. Wiping Work Area

    a. The work area should be cleaned using a three-container method. Fill two buckets with clean water and place them in the work area with the container of cleaning solution.

    b. Pour cleaning solution onto a clean cloth. Wring excess solution into one of the buckets without placing the cloth into the bucket. Wipe the work surface with the cloth. Add more cleaning solution to the cloth and continue wiping until the entire surface area has been covered. Discard all cloths used in this procedure in the disposal bag.

    c. Dip and wring out a clean cloth in the first rinse bucket. Wipe off the work area. Rinse the cloth in the first bucket again and wring out thoroughly. Rinse the cloth in the second bucket and wring out thoroughly again.

    d. Continue to clean the work surface with the cloth and rinse using this procedure until the entire work surface has been cleaned. Wipe off all tools to remove any dust.

    e. NOTE: The rinse water in the bucket should be changed periodically. The frequency will vary depending on the level of contamination.

6. Perform clear water wash of all surfaces in same manner as wet detergent wash.

7. After all surfaces in work area are allowed to dry, complete final HEPA vacuuming of all surfaces in same manner as first HEPA vacuuming.

8. After final cleaning perform a complete visual inspection of the entire work area including: all surfaces, ceiling, walls, floor, doorways, windows, surfaces previously covered with critical barrier sheeting, and other openings; look for debris from any source, residue on surfaces, dust or other matter. If any debris, residue, dust or other matter is found repeat final cleaning and continue decontamination procedure from that point. When the area is visually clean, complete the certification at the end of this section. Visual inspection is not complete until confirmed in writing, on the certification, by Terracon or the Owner.

3.9 Pre-Work and Post-Work Sampling

3.9.1 Pre-work sampling

A. Prior to work commencing, Terracon will collect representative samples at the interior of the structure to establish baseline lead concentrations for the proposed work area's surrounding locations. Following the completion of work and a thorough cleaning, dust samples will be collected at completed work areas at the facility. The frequency and number of pre- and post-work sampling will be performed to best fit the planned work as coordinated with the AC.

3.9.2 Post-Work Sampling

A. No sooner than one hour after the final cleaning and after the work area is completely dry, the following test procedure shall be performed:

1. A final visual assessment shall be conducted by Terracon for visible surface dust, debris and residue, only. Dust sampling will be performed. The visual assessment will include the work area. If dust, paint chips, or paint-related debris are observed, the AC will be required to reclean the work area(s) at their expense.

2. Once the visual assessment has passed, dust sampling shall be performed for work areas in general accordance with Appendix 13.1 and Chapter 15 of the HUD Guidelines and ASTM E 1728.

3. Wipe and soil samples must be analyzed for lead by a laboratory recognized by the EPA under the National Lead Laboratory Accreditation Program (NLLAP) and the Louisiana Environmental Laboratory Accreditation Program (LELAP) for analysis of lead in dust.

4. Lead in dust or soils within post-work samples must be equal to or less than pre-work concentrations.

5. Terracon shall immediately report the post-work results to the AC.

6. If samples do not meet passing criteria, the work areas will need to be re-cleaned and re-tested at the AC's expense.

3.10 Lead Waste Disposal

The debris stream generated from renovation activities must be analyzed via the Toxicity Characteristic Leaching Procedure (TCLP) for lead prior to disposal. Debris identified with a lead TCLP concentration of 5 mg/L or greater is to be disposed of as hazardous waste. Hazardous waste must be manifested and deposited in a landfill designed to accept such waste. The AC is responsible for characterizing the waste and ensuring proper disposal.

Large waste material should be wrapped in heavy-duty sheeting (6-mil polyethylene or equivalent), and all seams should be sealed with tape during storage and transported to the appropriate landfill.

Small waste material (including lead-contaminated protective clothing) should be placed in heavy-duty bags (double 6-mil or 4-mil polyethylene or equivalent). The bags should be securely taped shut with gooseneck closure.

The waste should be stored in a designated secure (locked) area. Dumpsters should have lids and be padlocked.

Vehicle selection, vehicle covers, and work practices shall assure that no lead is dispersed into the environment during the loading, transport and unloading activity, and that material is placed in the waste site without breaking any seals.

The AC shall transport the bags of waste material to the appropriate landfill. The sealed plastic bags shall be placed into the burial site unless the bags have been broken or damaged.

3.11 Lead Close-Out Documents

The AC must provide copies of demolition debris disposal records and TCLP analysis report(s).

The AC must provide a copy of the written compliance plan, respiratory protection plan and medical surveillance program records documenting that workers have been protected throughout the course of the project.

4.0 Universal Waste

4.1 Regulatory Overview

Under 40 CFR 273 - Standards for Universal Waste Management, USEPA establishes requirements for managing universal wastes. Under the Louisiana Administrative Code (LAC) Title 33:V:38, the State of Louisiana has established requirements for managing batteries, pesticides, mercury-containing equipment, lamps, electronics and antifreeze as universal waste. Additionally, the universal waste survey included an inventory of other potentially regulated special wastes including polychlorinated biphenyl (PCB) containing equipment, waste paint and chlorofluorocarbon (CFC) containing equipment.

4.2 Scope of Work

The following table provides a summary of the universal waste that was identified and shall be removed and disposed of as part of this project's scope of work.

Removal and disposal or recycling of universal waste and other potentially hazardous shall be conducted according to all applicable Federal, State, and local rules/regulations. The intent of this requirement is the removal and disposal/recycling of all wastes requiring special handling and/or disposal.

Table 3	
Universal Waste	**Approximate Quantity/Component**
Batteries	20 Emergency Lights 25 Smoke Detectors
Electric Lamps- Mercury Vapor and PCBs	600 Ballasts 300 Fluorescent Bulbs
Liquid Mercury	8 Thermostats
Electronics	25 Electrical Panels

4.3 Worker Protection

Prior to beginning work, the AC shall instruct workers on using appropriate procedures for personal protection when performing abatement activities. Each worker shall be provided with personally issued and marked respiratory protection equipment approved by National Institute for Occupational Safety and Health (NIOSH) in accordance with the AC's respiratory protection plan. The minimum respiratory protection requirements for this project are N95 filtering facepiece respirators. Use of respiratory protection must be in compliance with 29 CFR 1910.134, including the requirement for respirator fit testing. The AC is responsible for all safety protocols in accordance with applicable regulations and guidelines.

In addition to respiratory protection, disposable latex gloves worn beneath cut-resistant gloves and safety glasses shall be worn during abatement. All disposable protective clothing shall be discarded and disposed of in accordance with appropriate regulations.

The AC shall not permit under any circumstances any person to handle hazardous equipment without the appropriate protective clothing and equipment. Warning signs denoting the danger of removal activities shall be posted on the exterior of the hazardous materials storage area.

Do not eat, drink, smoke, or chew gum except in established locations outside the work area Workers must wash their hands before eating, drinking, smoking, or leaving the work area. Workers shall be fully protected with respirators and protective clothing when the possibility of exposure exists.

Following safe work procedures, remove and dispose of universal wastes identified in the provided specification. Control measures include designated work area, designated waste storage area, N95 respirator, safety glasses, and disposable gloves.

4.4 Removal

Lead-Containing Products and Electronics – Remove all identified lead acid batteries and other Lead-Containing Wastes, Pesticides, Paints and Electronic Waste (eWaste) using appropriate hand tools. Place segregated materials into appropriately labeled lined drums, and store in designated waste storage area prior to transportation to an approved waste facility.

Mercury electric lamps and thermostats – Remove all identified mercury electric lamps and thermostats using appropriate hand tools. Place materials in lined drum and fill empty space with saw dust to prevent breakage. Label and store containers in designated waste storage area.

PCB Ballasts – Remove all identified PCB light ballasts using appropriate hand tools. Inspect the ballast for "contains PCB's" or "Non-PCB" identification. If no identification is determined, equipment must be considered PCB containing. Place PCB ballasts in lined drum, label, and store in designated waste storage area.

CFC Refrigerant – Refrigerant must be removed by a licensed HVAC technician and stored in an approved disposal container. The refrigerant shall not be stored on-site and should be transported and disposed of by the licensed HVAC technician. Any remaining CFC equipment should be labeled and stored containers in designated waste storage area.

Potentially Radioactive Materials– Remove all identified smoke detectors using appropriate hand tools. Place materials in lined drum and fill empty space with saw dust to prevent breakage. Label and store containers in designated waste storage area.

4.5 Disposal

The AC shall comply with federal, state, and local regulations regarding the storage, transportation, and disposal of hazardous waste materials.

Any material deemed hazardous waste shall be placed in a 16-gauge, 45 to 60-gallon drums, lined with 10 mil bags and fitted with removable steel lids and sealed with PCB resistant gasket materials. Any material deemed non-hazardous waste can be place in a general waste dumpster.

All hazardous waste storage areas and drums shall comply with all federal, state, and local regulations and be identified with signs and barriers.

Please note, fluorescent lightbulbs must remain intact for disposal. Otherwise, an EPA Identification number must be acquired, and the materials must be disposed of as hazardous waste.

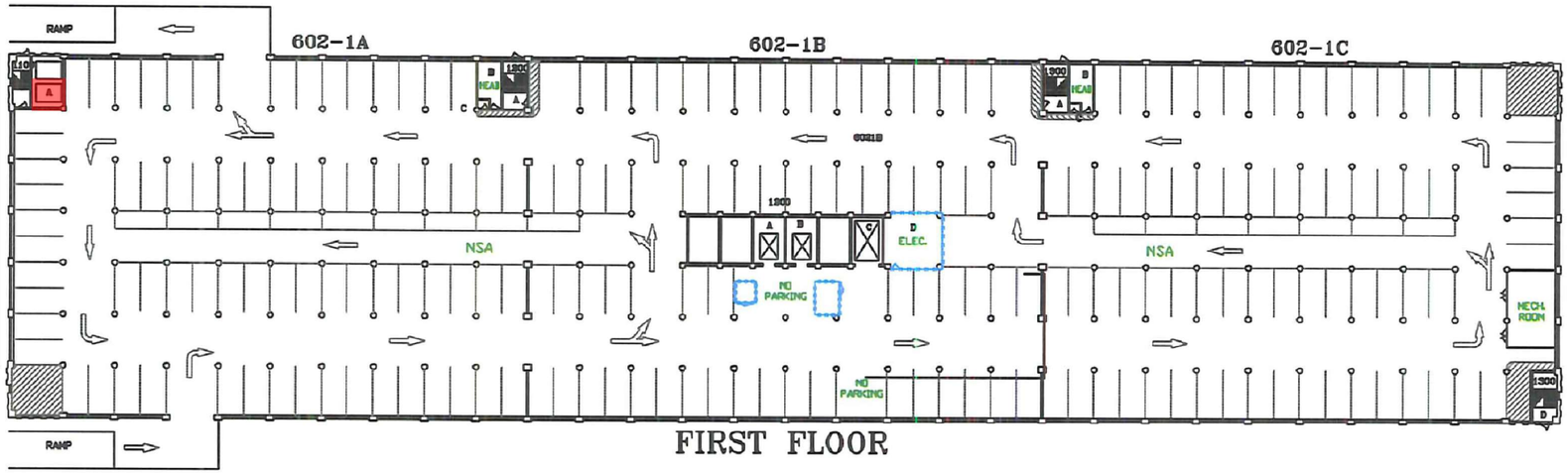
5.0 Reliance

This specification is for the exclusive use by the City of New Orleans and their selected abatement AC for the project being discussed. Reliance by any other party on this report is prohibited without written authorization of Terracon and the City of New Orleans.

Appendix A
Exhibits

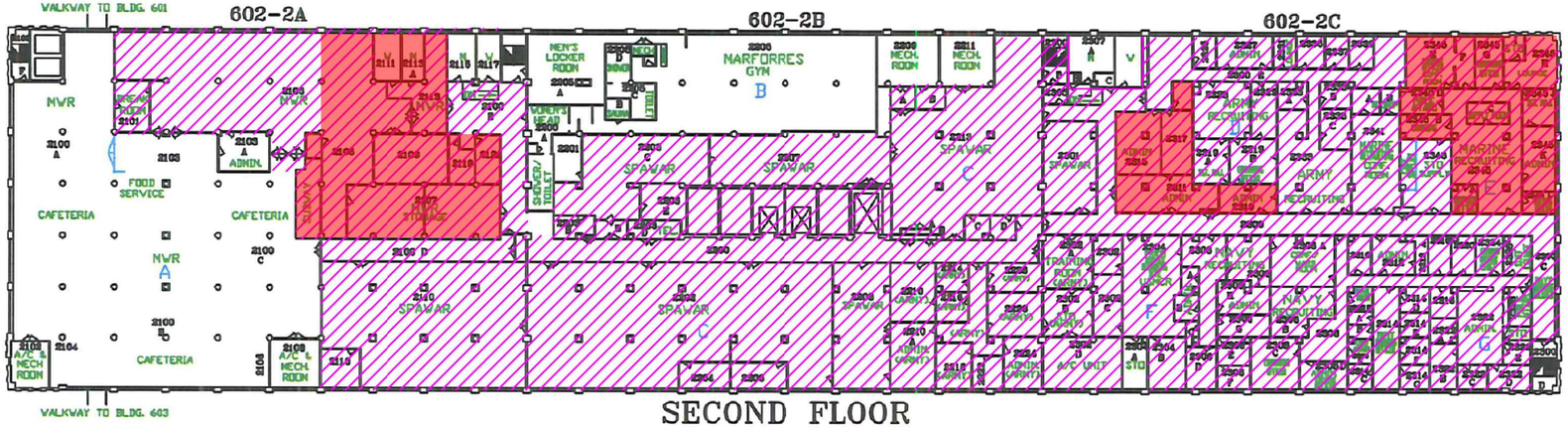
BUILDING 602, LEVEL 1:
FORMER PARKING AREA. WATER OBSERVED POOLING UP TO 6 INCHES IN AREAS. 40-60% GROUNDCOVER.

DISPERSED PILES OF DEBRIS CONSIST OF WHITE GOODS, WIRE COATINGS, METAL, TIRES, BULK BUILDING MATERIALS, GENERAL REFUSE, AND SHARPS.



FIRST FLOOR

BUILDING 602, LEVEL 2:
FORMER CAFETERIA, KITCHEN, AND OFFICE SPACES. OBSERVED WITH DENSE DEBRIS ACCUMULATION AND EXISTING BUILD-OUT. DEBRIS CONSISTS OF WHITE GOODS, BULK BUILDING MATERIALS, METAL, HVAC EQUIPMENT, ELECTRONICS, GENERAL REFUSE, AND SHARPS.



SECOND FLOOR

SPECIAL CONDITIONS:
ACM WINDOW CAULK, BATHROOM (HEAD) WATERPROOFING BENEATH FLOORING GROUT BED, AND PANEL WATERPROOFING NOT DISPLAYED ON THIS EXHIBIT.

ACM FLOOR TILE AND MASTIC ARE PRESENT BENEATH BUILD OUT BASE PLATES.

SOME AREAS OF ACM FLOOR TILE AND MASTIC HAVE TWO LAYERS OF FLOOR TILE AND/OR ARE CONCEALED BY CARPET.

LEGEND

ACM FLOOR TILES AND MASTIC

DEBRIS-LADEN AREAS WITH SIGNIFICANTLY DAMAGED ACM FLOOR TILE AND MASTIC (RACM) EITHER INTERMINGLED OR EXPOSED TO WORK ENVIRONMENT.

Terracon
524 ELMWOOD PARK BOULEVARD #170 NEW ORLEANS, LA 70123

SCALE: NOT TO SCALE
PROJECT NO: ET247236
DATE: SEP 2024

BUILDING 602: CONDITIONAL MAP - FLOORS 1 & 2

FORMER NSA COMPLEX
4400 DAUPHINE STREET
NEW ORLEANS, LOUISIANA

EXHIBIT
602.1

Appendix B
Personnel Accreditation

STATE OF LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY

certifies that

Jason M Maloney

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

Asbestos Project Designer

Accreditation No. DD178742 **AI No.** 178742

Date of Issuance December 4, 2024 **Expiration** December 29, 2025

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

Charles Finley

Permit Support Services Division
Office of Environmental Services

STATE OF LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY

certifies that

Jason M Maloney

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

Lead Project Designer

Accreditation No. FD178742 **AI No.** 178742

Date of Issuance January 24, 2025 **Expiration** February 25, 2026

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

Charles Finley

Public Participation & Permit Support Division
Office of Environmental Services