

Public Works Facilities Management

ADDENDUM NO. 1 DATE: 3/27/2024

REVISIONS TO: Request for Bids Specification No. PW23-0125F Foss Waterway Site 8 Building Demo

NOTICE TO ALL BIDDERS:

This addendum is issued to clarify, revise, add to or delete from, the original specification documents for the above project. This addendum, as integrated with the original specification documents, shall form the specification documents. The noted revisions shall take precedence over previously issued specification documents and shall become part of this contract.

REVISIONS TO THE SUBMITTAL DEADLINE:

The submittal deadline remains the same.

REVISIONS TO THE GENERAL INFORMATION AND REQUIREMENTS:

General Requirements:

- The following specification sections are incorporated into the Project Manual:
 - o 01 11 10 SUMMARY OF HAZARDOUS MATERIALS WORK
 - 02 82 00 ASBESTOS ABATEMENT
 - o 02 83 00 LEAD RELATED ACTIVITIES
- Section 01 12 00 PERMITS AND FEES, is amended to include attached SEPA Review Exemption memo dated April 4, 2023.

NOTE: Acknowledge receipt of this addendum by initialing the corresponding space as indicated on the signature page. Vendors who have already submitted their bid/proposal may contact the Purchasing Division at 253-502-8468 and request return of their bid/proposal for acknowledgment and re-submittal. Or, a letter acknowledging receipt of this addendum may be submitted in an envelope marked Request for Bids Specification No. PW23-0125F Addendum No. 1. The City reserves the right to reject any and all bids, including, in certain circumstances, for failure to appropriately acknowledge this addendum.

cc: Stephanie Mehr-Hickson/Public Works Facilities Management

Form No. SPEC-220A Revised: 07/08/2022

SECTION 01 11 10

SUMMARY OF HAZARDOUS MATERIALS WORK

PART 1 GENERAL

1.1 DESCRIPTION

A. Hazardous Materials or materials needing special handling or disposal, that may be potentially impacted by the project or that could be encountered during construction, have been identified below. The purpose of this section is to identify all of these materials in one section and refer the reader to subsequent sections as necessary.

1.2 RELATED WORK

- A. Work performed under this specification section is governed by related specification sections, including, but not limited to, the following:
 - 1. Division 2: Existing Conditions, Section 028213, Asbestos Abatement.
 - 2. Division 2: Existing Conditions, Section 028313, Lead-Related Activities.

1.3 ASBESTOS-CONTAINING MATERIALS

- A. Asbestos-related work is included in this contract. See items below.
- B. The Contractor shall refer to the attached Limited Hazardous Materials Survey Report. This document lists suspect asbestos-containing materials (ACM) sampled and analyzed for asbestos content, or presumed, at the areas of the buildings included in the Work. The Contractor shall ensure that copies of this information are made available to and retained on the project site by all subcontractors.
- C. The Contractor shall be aware that suspect-ACM may exist in inaccessible locations of the spaces included in the Work. The Contractor shall proceed with caution during all phases of the Work. Should any suspect-ACM not indicated in the Limited Hazardous Materials Survey Report be encountered, the Contractor shall immediately notify the Owner's Representative.
- D. The Contractor is advised that, should additional suspect ACM not included in the Limited Hazardous Materials Survey Report be encountered, the Owner may elect to include the abatement of such materials in the Work at a mutually agreed upon price. Work impacting such materials is not to occur prior to the Contractor receiving explicit written authorization from the Owner, and any Work performed without such approval is performed at the Contractor's own risk and expense.
- E. The disturbance or impact of ACM may cause asbestos fibers to be released into the building's atmosphere, thereby creating a potential health hazard to building occupants. Contractor is to apprise all workers, supervisory personnel, subcontractors and consultants who will be at the jobsite of the seriousness of this potential hazard and of proper Work procedures that must be followed, should it occur.
- F. Should the disturbance or impact of ACM occur, or additional ACM not included in the Limited Hazardous Materials Survey Report be encountered, the Contractor shall immediately notify the Owner's Representative.
- G. Where in the performance of the Work, workers, supervisory personnel, subcontractors, or consultants may encounter, disturb, or otherwise function in the immediate vicinity of any identified ACM, Contractor shall take appropriate continuous measures, as necessary, to protect all building occupants from the potential hazard of exposure to airborne asbestos. Such measures shall include the procedures and methods described herein, and compliance with applicable local, state and federal regulations.

- H. Contractor to verify the scope of Work prior to commencing work and shall coordinate all Work with Owner and Prime Contractor.
- I. Contractor shall coordinate with Owner, other trades, furnish all labor, materials, equipment, services and insurance (specifically covering the handling and transportation of asbestos-containing materials) that is specified, shown, or reasonably implied in accordance with the requirements of applicable regulations, including, but not limited to: 40 CFR Part 61, NESHAPS; 40 CFR Part 763, AHERA; WAC 296-62 and 296-65; and Puget Sound Clean Air Agency Regulation III, Article 4: Asbestos Control Standards.
- J. Contractor shall furnish all labor, materials, equipment, services and insurance (specifically covering the handling and transportation of ACM) that is specified, shown, or reasonably implied for activities related to asbestos-containing materials as identified below:
 - 1. Remove and dispose of 64 linear feet of asbestos-containing gray sealant associated with parapet cap seams at Lower Building roof.
 - 2. Remove and dispose of 8,500 square feet of asbestos-containing built-up asphaltic roofing from Lower Building upper and lower roofs and parapets.
 - 3. Remove and dispose of 140 square feet of asbestos-containing roof patching material at Upper Building south roof and Lower Building parapet.

1.4 LEAD-CONTAINING PAINT

- A. Lead-containing Items: The Owner has conducted a survey of lead-containing items in the areas to be impacted by the Work. Survey samples and results are included in the Limited Hazardous Materials Survey Reports.
- B. Consider all items similar to those testing positive for lead to be lead-containing. Consider any painted coatings that have not been tested to be lead-containing.
- C. The Contractor shall comply with all applicable regulations, laws and ordinances concerning removal, remodeling, cutting, handling, storage, disposal, monitoring and protection against exposure or environmental pollution. Work related to lead-containing paint and lead-containing components within this contract is the responsibility of the General Contractor, in addition to all affected Sub-Contractors, and shall be performed in accordance with Section 02 8300 and all applicable local, state and federal regulations.

1.5 POLYCHLORINATED BIPHENYLS (PCBS)

- A. The Owner has conducted a survey of representative light fixture ballasts to be impacted by the project. The majority of all fluorescent light fixture ballasts have been retro-fitted with newer, non-suspect-PCB ballasts. The potential exists for older PCB-containing ballasts to exist that may be impacted by the Work. Caution should be exercised to ensure older PCB-ballasts are properly handled, containerized and disposed of, should they be encountered.
- B. All employers of personnel performing work related to PCB-containing light ballasts are to submit the following information related to all tasks to be performed by their personnel:
 - 1. Work Plan: Provide a detailed description of the means and methods to be employed regarding PCB-containing light ballasts, including: personal protective equipment and work area proection to be implemented during the work, decontamination procedures, access restriction procedures and controlled areas, clean-up procedures, and employee exposure assessment(s).
 - Disposal/Recycling Information: Prior to commencing work, provide the name, address and
 phone number of the proposed end-point facility to receive fluorescent light tubes removed from
 the project site. Submit to the Environmental Consultant all waste manifests and
 disposal/recycling receipts following removal operations.

C. Contractor shall furnish all labor, materials, equipment, services and insurance that is specified, shown, or reasonably implied for the removal, packaging, transport and disposal of up to fifty (50) PCB-containing light fixture ballasts from various locations throughout.

1.6 MERCURY (Hg)

- A. Fluorescent light tubes and thermostat bulbs are known to contain regulated concentrations of mercury and require special handling and disposal/recycling at a facility permitted to accept such material. Remove light tubes only as specified elsewhere. The contractor should follow any and all applicable regulations to prevent breakage to any tubes encountered during demolition or renovation activities.
- B. Prevent breakage to any tubes or thermostat bulbs encountered during demolition or renovation activities.
- C. All employers of personnel performing the work related to fluorescent light tubes are to submit the following information related to all tasks to be performed by their personnel:
 - Work Plan: Provide a detailed description of the work impacting light tubes to be performed, including personal protective equipment and engineering controls to be implemented during the work, decontamination procedures, access restriction procedures and controlled areas, debris clean-up procedures, exposure assessments and any related air monitoring.
 - Disposal/Recycling Information: Prior to commencing work, provide the name, address and
 phone number of the proposed end-point facility to receive fluorescent light tubes removed from
 the project site. Submit to the Environmental Consultant all waste manifests and
 disposal/recycling receipts following removal operations.
- D. Contractor shall furnish all labor, materials, equipment, services and insurance that is specified, shown, or reasonably implied for the removal, packaging, transport and recycling/disposal of up to one-hundred (100) four-foot and forty (40) eight-foot mercury-containing fluorescent light tubes from various locations throughout.

1.7 EXISTING CONDITIONS

- A. The Environmental Consultant and Owner make no representation, warranty, or guarantee the conditions indicated by the test reports or inspection summary are representative of those conditions existing throughout the area, or that unforeseen developments may not occur, or that materials other than, or in proportions different from those indicated, may not exist.
- B. Contractor is advised that the locations of all ACMs may not be clearly known, and that care should be taken to prevent impact of ACMs located in concealed and inaccessible locations.

1.8 WORK NOT COVERED BY CONTRACT DOCUMENTS

A. Not Used

1.9 OWNER RULES

A. The Contractor shall abide by all facility rules and regulations.

1.10 CLEAN UP

A. Ensure that all areas are visibly clean at completion of Work. Refer to other Sections for information on cleaning requirements.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

SECTION 02 82 00

ASBESTOS ABATEMENT

PART 1 GENERAL

1.1 SCOPE

- A. This section covers the removal and disposal of asbestos-containing materials and all activities impacting asbestos-containing materials in the areas of the project included in the Work as defined by these Contract Documents. See Section 01 1110 Summary of Hazardous Material Work.
- B. Provide all labor, materials, equipment, services, permits and insurance required to complete asbestos-related procedures as indicated in the Contract Documents.
- C. Field-identify the location and quantity of all asbestos-containing materials to be impacted as indicated in Section 01 1110.
- D. The Contractor shall refer to the Limited Hazardous Materials Survey Report, which lists suspect materials sampled in areas of the project included in the Work and analysis for asbestos content. The Contractor shall ensure that a copy of this information is made available to and retained on the project site by all subcontractors.

1.2 RELATED WORK

- A. Work performed under this specification section is governed by related specification sections, including, but not limited to, the following:
 - 1. Division 1: Section 011110, Summary of Hazardous Materials Work

1.3 DEFINITIONS

- A. Wherever the terms below occur in this contract document, they will have the meanings, which follow:
 - 1. Abatement: Procedures to control fiber release from asbestos-containing building materials. Includes encapsulation, enclosure, removal, repair and related activities.
 - 2. Adequately wet: sufficiently mixed, saturated, or coated with water or an aqueous solution to prevent emissions.
 - 3. AHERA: Asbestos Hazard Emergency Response Act, 40 CFR Part 763.
 - 4. Amended Water: Water containing a surfactant additive.
 - 5. Asbestos: Asbestiform varieties of actinolite, amosite, (Cummingtonite grunerite, tremolite, chrysotile, crocidolite and anthophyllite.)
 - 6. Asbestos-containing Material (ACM): Any material containing more than one percent (1%) asbestos as defined under NESHAPS CFR 40, Part 61, and OSHA 29 CFR Part 1926.1101, or at least one percent (1%) asbestos as defined under Northwest Clean Air Agency (NWCAA) Section 570 Asbestos Control Standards.
 - Asbestos-containing Waste Material: Asbestos-containing materials, materials used to control
 the work area during the asbestos project, debris, containers, bags, protective clothing and HEPA
 filters.
 - 8. ASTM: American Society of Testing Materials.
 - Authorized Visitor: The Owner or designated representative, or a representative of any
 regulatory or other agency having jurisdiction over the project, and having required training,
 medical, fit test, etc.
 - 10. Certified Asbestos Worker: person certified by WAC Chapter 296-65-010.

- 11. Certified Asbestos Supervisor: person certified by WAC Chapter 296-65-012, whose duties include at least: establishing negative pressure, mini-enclosure, glove bag or other engineering controls, ensure integrity of those controls, supervise employee monitoring, protective equipment, training, hygiene and decontamination procedures.
- 12. Certified Industrial Hygienist (CIH): An industrial hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene.
- 13. Class I Asbestos Work: Activities involving the removal of TSI, surfacing ACM and presumed asbestos-containing materials as defined by OSHA. Materials include those otherwise regulated by WISHA including, but not limited to, pipe insulation.
- 14. Class II Asbestos Work: Activities involving the removal of ACM that is not thermal system insulation or surfacing material as defined by OSHA. This also includes, but is not limited to, the removal of asbestos-containing floor tile, cement asbestos board, roofing and siding.
- 15. Critical Barrier: Barrier constructed of two layers of six-mil plastic sheeting and sealed at the edges with duct tape and, as appropriate, spray adhesive. Critical barriers constructed in exterior areas shall utilize reinforced plastic sheeting.
- 16. Curtained Doorway: A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms, typically constructed by placing three overlapping sheets of plastic over an existing or temporarily framed doorway, securing each along the top of the doorway in a pleated fashion and securing one vertical side of each sheet on alternating sides of consecutive sheets. Two curtained doorways spaced a minimum of 3 feet apart form an air lock.
- 17. Decontamination Area: Enclosed area adjacent and connected to regulated area and consisting of equipment room, shower area, and clean room, which is used to decontaminate workers, materials, and equipment.
- 18. Disposal: Procedures necessary to transport and deposit the asbestos-contaminated material in an approved waste disposal site in compliance with EPA and other applicable regulations.
- 19. Disposal Site: EPA-approved landfill for asbestos-containing waste.
- 20. EPA: U. S. Environmental Protection Agency.
- 21. Encapsulant (Sealant): A liquid material which can be applied to asbestos-containing material and which controls the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant), or by penetrating into the material and binding its components together (penetrating encapsulant).
- 22. Environmental Consultant: Environmental consultant specializing in asbestos abatement and retained by the Owner.
- 23. Fiber: A particulate form five micrometers or longer, with a length to diameter ratio of at least 3:1.
- 24. Fibers/cc: Fibers per cubic centimeter of air.
- 25. Fitting: With regard to pipe insulation, a fitting is any elbow, offset, reducer, tee, etc.
- 26. Fixed Object: Fixtures that are attached to the building or are too heavy or bulky to remove from the work area.
- 27. Glove Bag: A manufactured device consisting of a transparent plastic bag with inward projecting sleeves, an internal tool pouch, provisions for fastening and sealing at the top and sides, and a receptacle in the bottom to hold asbestos waste. The glove bag is installed so as to surround the material to be removed and contain all fibers released during the process. Glove bags are used to remove insulation from small sections of pipe and fittings.
- 28. HEPA Filter: A High Efficiency Particulate Air (absolute) filter capable of trapping and retaining 99.97% of asbestos fibers greater than 0.3 microns in length.

- 29. HEPA Vacuum Equipment: High Efficiency Particulate Air (absolute) filtered vacuuming equipment with a filter system capable of collecting and retaining asbestos fibers. Filters of 99.97% efficiency for retaining fibers of 0.3 microns in length or larger shall be installed for filtering discharge air.
- 30. HVAC System: Heating, Ventilation and Air Conditioning System.
- 31. Independent Testing Laboratory: A laboratory financially independent from and hired by the Owner or Contractor which is either AIHA-accredited for asbestos with demonstrated proficiency via the AIHA PAT program or has analysts proficient in the AIHA AAR program for air sample analysis.
- 32. Industrial Hygienist: An employee of the Independent Testing Laboratory who is experienced and trained in asbestos sampling and analysis as specified.
- 33. Isolated Work Area: A totally contained area of the facility where Class I abatement activities are performed as defined by OSHA 29 CFR 1910.
- 34. Mini-enclosure: An enclosure fabricated to effectively contain a small work area conforming to EPA, AHERA, 40 CFR 763 Subpart E, Appendix B.
- 35. Movable Object: Furnishings that are not attached to the building structure and can be removed from the work area.
- 36. Negative-air Glove Bag: A manufactured device consisting of a transparent plastic bag with inward projecting sleeves, an internal tool pouch, provisions for fastening and sealing it at the top and sides, and a receptacle in the bottom to hold asbestos waste. The glove bag is installed so as to surround the material to be removed and contain all fibers released through the process, with provisions for allowing continuous airflow through the bag while maintaining negative pressure inside.
- 37. Non-Isolated, Regulated Area: Work area where Class II asbestos abatement work is performed as defined by OSHA 29 CFR 1910.
- 38. NVLAP: National Voluntary Laboratory Assurance Program.
- 39. Owner: Representatives designated by the Department of Corrections, or designated employees of the Department of Corrections.
- 40. PACM: Presumed asbestos-containing materials.
- 41. PAT: Proficiency Analytical Testing program performed for NIOSH method 7400.
- 42. PCM: Phase Contrast Microscopy analytic method applied to air samples to determine airborne fiber concentrations, NIOSH method 7400.
- 43. PLM: Phase Light Microscopy analytic method applied to bulk material samples to determine asbestos content, EPA method 40 CFR 763, Subpart F, Appendix A.
- 44. PSCAA: Puget Sound Clean Air Agency
- 45. Pressure Differential Fan System: An air-purifying fan system located within or outside the isolated work area, which draws air out of the work area through a HEPA filter, thus keeping the static air pressure in the work area lower than in adjacent areas and preventing escape of contaminated air from work area to adjacent areas.
- 46. Public Area: Any area outside the isolated work area. When work area isolation measures are removed, the work area becomes a public area.
- 47. Regulated Area: Area which only certified asbestos workers and other persons authorized by Regulation I of the Washington Industrial Health Act have access, where asbestos materials to be removed exist, or where airborne fiber concentrations are expected to exceed 0.01 f/cc.
- 48. Removal: All operations where ACM and/or PACM are taken out or stripped from structures or substrates, including demolition activities.
- 49. SDS: Safety Data Sheet supplied by manufacturer provides information on a product listed in OSHA 29 CFR 1910.1200(g)(2).

- 50. Shower Room: A room between the clean room and the equipment room in the worker decontamination enclosure system, which is equipped with hot and cold running water controllable at the faucet and soap and shampoo, and which is suitably arranged for complete showering during decontamination. The shower room must be separated from the clean room and equipment room by air locks.
- 51. Smoke tube method: A method of qualitatively testing the direction of air flow and seals in plastic sheeting walls and glove bags, using titanium tetrachloride (or equivalent) smoke tubes.
- 52. Special Fitting: With regard to pipe insulation, a special fitting is any valve, union, strainer, gauge, flange, etc.
- 53. Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.
- 54. Thermal System Insulation (TSI): ACM applied to pipes, fittings, boilers, breaching, tanks, ducts or other structural components to prevent heat loss or gain.
- 55. Transport: Hauling of asbestos-containing waste from a work site to a disposal site and deposit of the waste by a firm in compliance with the EPA, Washington State and PSCAA.
- 56. Waste Load-out Area: A two chamber system adjacent to the negative pressure enclosure used for the final preparation and external decontamination of waste containers, and short-term storage waste containers prior to transport from the jobsite.
- 57. Waste Shipment Records: Form similar to that shown in EPA NESHAP 40 CFR 61.150(d)(1), or an EPA approved state or local form.
- 58. Worker Decontamination Enclosure System: A showering facility for workers, typically consisting of a clean room, a shower room, and an equipment room. Each of these rooms is separated from the others by air locks. The equipment room is separated from the work area by a curtained doorway. The clean room is separated from the public area by a curtained doorway.
- 59. Worksite Entry Logbook: A logbook kept in the clean room, which must be signed by everyone entering or leaving the work area.

1.4 DOCUMENTS INCORPORATED BY REFERENCE

- A. The current issue of each document shall govern. Where conflict among requirements or with these Specifications exists, the most stringent requirements shall apply.
 - U.S. Environmental Protection Agency National Emissions Standards for Hazardous Air Pollutants (NESHAPS). (Code of Federal Regulations Title 40, Part 61, Subparts A and B.)
 - 2. U.S. Environmental Protection Agency Office of Toxic Substances Guidance Document, Guidance for Controlling Friable Asbestos-Containing Materials in Buildings, EPA Report Number 560/5-85-024 ("Purple Book").
 - 3. U.S. Department of Labor Occupational Safety and Health Administration (OSHA):
 - 4. Title 29 Code of Federal Regulations Section 1910.1001--General Industry Standard For Asbestos.
 - 5. Title 29 Code of Federal Regulations Section 1910.134--General Industry Standard For Respiratory Protection.
 - 6. Title 29 Code of Federal Regulations Section 1910 et al.--Occupational Exposure to Asbestos; Final Rule.
 - 7. Title 29 Code of Federal Regulations 1926.1101--Construction Standard for Asbestos.
 - 8. Title 29 Code of Federal Regulations Section 1910.2--Access to Employee Exposure and Medical Records.
 - 9. Title 29 Code of Federal Regulations Section 1910.1200--Hazard Communication.
 - 10. Environmental Protection Agency 40 CFR Part 763, AHERA, Asbestos-Containing Materials in Schools; Final Rule and Notice.

- 11. National Institute for Occupational Safety and Health (NIOSH), 30 CFR, Part II, Respirators.
- 12. American National Standards Institute (ANSI) NY; ANSI Standard Z 88.2-1980 American National Standards Practice for Respiratory Protection, latest edition.
- 13. CERCLA, Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601 et.seq.)
- 14. RCRA, Resource Conservation and Recovery Act.
- Washington State General Occupational Health Standards, Washington Administrative Code (WAC) Chapter 296-62-077 Asbestos, Tremolite, Anthophyllite, and Actinolite; Chapter 296-65 Asbestos Removal & Encapsulation; Chapter 296-155 Safety Standards for Construction Work.
- 16. Puget Sound Clean Air Agency Regulation III, Article 4 Asbestos Control Standard. Washington Industrial Safety and Health Act (WISHA)
- 17. International Building Code (I.B.C.), latest edition, and regulations as applicable.
- 18. Electrical work shall be performed in accordance with the National Electrical Code.
- 19. All local ordinances, regulations, or rules pertaining to asbestos, including its storage, transportation, and disposal.

1.5 SUBMITTALS AND NOTICES

- A. No asbestos-related work will be permitted prior to submittals being approved by the Environmental Consultant. Allow fifteen (15) days for review.
- B. Additional requirements for submittals are also described in other sections of these specifications. The requirements in this section pertain to asbestos-containing materials removal.
- C. Contractors shall submit to the Environmental Consultant the following information prior to beginning work on the project:
 - 1. Work Plan: Include a detailed plan of the procedures proposed for use in complying with the requirements, including the following:
 - a. A description of all special equipment, techniques, and methods to be used on the Project, including description of work area layout(s) and work practices, etc.
 - b. A detailed project schedule.
 - c. Specific information relating to handling, transport and disposal of asbestos-containing waste. Identify any disposal site at which any waste material generated during the project will be disposed and furnish evidence of all necessary government approvals to dispose of the waste.
 - 2. Laboratory Qualification Information: Submit information pertaining to the proposed Air Monitoring Program for this project. Air monitoring shall include employee exposure monitoring. This information shall include types of equipment, sampling schedule, sampling procedures, calibration record keeping, name and address of proposed Independent Testing Laboratory, and evidence of analyst's NIOSH 582 course completion and AIHA PAT program participation.
 - 3. Notifications and Policies: Submit copy of all required notifications and permits obtained by the contractor (Washington State Department of Labor and Industries, and NWCAA) and copies of all types of specified bonds and insurance. Submit upon receipt any approved amendments to notifications or re-notifications for multi-phase activities. See Paragraph 1.11 Permits and Notifications for additional requirements.
 - 4. Asbestos Supervisor: Submit the name, Asbestos Supervisor Certification, Certificate of Worker Acknowledgment and resume of experience of the assigned on-site foreman. At a minimum, the foreman shall have successfully completed a supervisor-training course in compliance with WAC Chapter 296-65-007. References and work on similar projects will also be reviewed. The Owner and the Environmental Consultant reserve the right to reject the foreman from the work

at any time during the project. The Contractor shall then submit another on-site foreman for approval as described above.

D. Periodic Job Submittals

- Personal Air Monitoring: Submit copies of all personal air monitoring data sheets, chain-ofcustody and analytical results to the Owner and Environmental Consultant on a daily basis prior to the start of the next work shift following sample collection.
- 2. Daily Logs: Submit daily logs to the Owner and Environmental Consultant daily prior to the start of the next work shift. Daily logs shall indicate the date, time, identity, company or agency represented, and reason for entry of all persons entering the work area, and the type, amount and location(s) of all ACMs removed.
- 3. At the request of the Environmental Consultant or other representative of the Owner, immediately provide documentation of training or medical monitoring of employees as required by applicable regulations. Such documentation will be maintained on the project site as required by applicable regulations. Failure to comply with such request will result in immediate suspension of employees from work as defined by the Contract Documents.
- E. Post-Job Submittals shall be delivered to the Environmental Consultant within 15-days of completion of work and shall include the following:
 - Certification: Provide written certification from the Abatement Contractor's Project Manager or Supervisor that Contractor has fully inspected the work area and completed work in strict accordance with the Specifications.
 - Air Monitoring: Submit documentation of all employee personal air monitoring results relative
 to OSHA and WISHA respiratory protection level compliance. Include copies of all air
 monitoring data sheets, chain-of-custody documentation and analysis reports for sampling
 conducted at the site.
 - Project Record Documents: Provide project records including documentation of all contract changes, and copies of worksite entry log books, safety logs, sign-in sheets, and supervisor's daily field reports.
 - 4. Disposal Manifests: Submit copies of all asbestos waste disposal transportation and disposal manifests including signed receipts from the landfill, and chain-of-custody.

1.6 PERSONELL PROTECTION

A. Training

- 1. All personnel accomplishing removal of asbestos-containing materials shall have received the minimum training as required by the Washington State Department of Labor and Industries for the work to be performed. At a minimum, the supervisor shall be the bearer of a current "Certified Asbestos Supervisor Certificate" issued by the Washington State Department of Labor and Industries. Prior to commencement of work, Contractor shall ensure all workers have been trained as specified in WAC Chapter 296-65.
- 2. The Contractor shall provide and post decontamination, respirator, and work procedures for abatement crew.
- 3. The Contractor shall ensure that all employees have been trained as to emergency evacuation procedures specific to each work area.
- B. Personnel Protective Equipment for Asbestos Removal
 - 1. Provide protective clothing and equipment per WAC 296-62 and Section 2.1.

1.7 AIR MONITORING BY CONTRACTOR

A. Laboratory Analysis: An Independent Testing Laboratory shall be retained by the Contractor for PCM sample analysis. All analysis shall be performed by an analyst experienced and trained in asbestos

- sampling and analysis. At a minimum, documentation of prior asbestos sampling and analysis experience, plus satisfactory completion of the NIOSH 582 course or equivalent will be required. Air sample collection may be performed by an Industrial Hygienist or the Contractor's foreman at the Contractor's option. The Contractor shall perform sampling and analysis of air samples for asbestos in compliance with WAC Chapter 296-62-07735, Appendix A-WISHA reference method.
- B. Sample Documentation: Documentation shall be kept for each filter sample procured as to worker sampled, social security number, activity, work area location, date and time taken, volume of air drawn through filter, pump identification number and calibration. Documentation shall indicate in what areas tests were taken and shall clearly indicate the specified maximum allowable fiber levels for each area tested. Report all data on copies of the Asbestos Air Sample Data Sheet bound in these Specifications or similar approved form within 48 hours. Fill in all information on every form. Submit chain-of-custody records along with all samples.
- C. Analysis Procedures: The samples shall be collected on 25 mm filters and analyzed within 12 hours using the membrane filter method at 400-500x magnification with phase contrast illumination—NIOSH Analytical Method No. 7400—for laboratory and field analysis. The analyst shall sign and submit permanent records of all samples analyzed directly to the Environmental Consultant. The Independent Testing Laboratory shall seal the unused portion of all filters in airtight containers so that individual samples can be re-analyzed at a later date if necessary. The containers shall be clearly labeled with Project Name and Sample Number and shall become property of the Owner at work completion at the Owner's request.
- D. Controls: The Contractor's testing laboratory shall submit sample analysis results, chain-of-custody and equipment calibration records to the Environmental Consultant prior to the start of the next work shift following collection.
- E. Contractor's Sampling During Abatement
 - Sample Collection: Air monitoring shall be performed to determine worker exposure during the
 period of asbestos abatement in each work area. Begin sampling when asbestos removal
 commences. Samples are to be taken where Class I or II work is being conducted during each 8hour work shift until abatement is complete.
 - 2. Most Contaminated Worker: The Contractor shall determine which worker(s) in each work area is probably experiencing the most severe exposure. This is the "Most Contaminated Worker(s)". 8-hour TWA and 30-minute excursion samples shall be collected on this worker(s). This worker shall wear a personal sampling pump and the sample shall be drawn from the breathing zone of this worker.
 - 3. The number of air samples collected shall be in accordance with the Contractor's approved work plan, however, a minimum of one sample per work area must be collected daily.
 - 4. The Contractor perform collect air samples prior to abatement, inside the work area, outside the work area, at HEPA exhaust and after visual inspection. Documentation of sample results will be forwarded to the Owner as requested.
 - 5. Sampling and analysis of asbestos samples shall be performed in compliance with WAC Chapter 296-62-07735, Appendix A--WISHA reference method, or equivalent.
- F. Quality Assurance: See Section 1.14, Quality Assurance, for additional requirements related to air monitoring.

1.8 AIR MONITORING BY OWNER

A. The Owner reserves the right to monitor the Contractor's performance via air monitoring during abatement activities, in addition to the Contractor's exposure monitoring and testing.

1.9 OWNER OCCUPANCY

A. The area of abatement shall be occupied only by properly trained and protected personnel during abatement activities. Construct the abatement control areas and perform the work so as not to interfere with the Owner's site and facility operations.

1.10 WORKING HOURS

A. Submit proposed work schedule to Owner for approval in conjunction with "Pre-Work Submittals" required by this Section. The Owner reserves the right to restrict and curtail any operations which are considered, at the Owner's sole determination, to generate such noise or activities as to interfere with facility operations. Any revisions to the approved work schedule shall be submitted in writing to the Owner a minimum of 48 hours prior to the desired change.

1.11 PERMITS AND NOTIFICATIONS

A. The Contractor is responsible for obtaining and maintaining all permits and notifications as required for the completion of the work by the Washington State Department of Labor and Industries, the U.S. EPA, the Olympic Region Clean Air Agency and any other permitting agency involved with the completion of the work included herein.

1.12 LIABILITY

A. The Contractor is an independent contractor and not an employee of the Owner, Architect or Environmental Consultant. The Owner, Architect and the Environmental Consultant shall have no liability to the Contractor or any third persons for Contractor's failure to faithfully perform and follow the provisions of these Specifications and the requirements of the governing agencies. Notwithstanding the failure of the Owner, Architect or the Environmental Consultant to discover a violation by the Contractor of any of the provisions of these Specifications, or to require the Contractor to fully perform and follow any of them, such failure shall not constitute a waiver of any of the requirements of these Specifications which shall remain fully binding upon the Contractor.

1.13 SUBCONTRACTORS

A. Subcontractors employed by the Contractor shall be bound to all the work and safety standards specified. Subcontractor's personnel shall meet requirements as specified, and shall be supervised by the Contractor during performance of this work.

1.14 QUALITY ASSURANCE

- A. Qualifications for Performance of Work
 - Contractor shall have a record of successful experience in asbestos removal and related Work similar in scope and magnitude to this Project. Contractor shall have valid licenses and certifications as a Contractor and an Asbestos Abatement Contractor in the State of Washington.
 - 2. Maintain on site a full-time Certified Asbestos Supervisor approved by the Owner per pre-job submittals.
 - 3. Provide one experienced Foreman for every five asbestos workers, or portion thereof, utilized on the Project.
- B. On-Site Observation
 - Pre-Removal: Certified Asbestos Supervisor shall perform observations regarding: demarcation of regulated area and installation of critical barriers. Contractor shall

- request pre-removal observations a minimum of two hours prior to desired removal commencing. No abatement work shall be performed prior to pre-removal observation by the Environmental Consultant.
- Observation: Certified Asbestos Supervisor shall perform observations regarding: integrity of isolation barriers, decontamination facilities, worker protection, Contractor's air monitoring program, performance of abatement operations, and conformance to the Specification, EPA, OSHA, WISHA and NWCAA regulations.
- 3. Post Removal: Certified Asbestos Supervisor shall perform visual inspections after the removal of asbestos-containing materials and cleaning of work area(s) is complete.
- Visual Inspections shall be performed according to ASTM Standard E 1368, Standard Practice for Visual Inspection of Asbestos Abatement Projects.
- 5. The Contractor shall not proceed until post-removal visual inspection by the Certified Asbestos Supervisor has determined work area(s) acceptable.
- 6. Stop Work: Environmental Consultant shall notify the Contractor in writing to stop abatement work if the Owner determines that work practices are in violation of regulations, these Specifications or that work is endangering workers or occupants of the building. The Contractor shall continue work when conditions and actions are corrected and when written authorization is received from the Environmental Consultant.

C. Air Monitoring

 Notification: If, at any time during the work, analysis of an air sample taken by the Contractor, Owner, or Environmental Consultant, indicates a fiber concentration in excess of the applicable Maximum Allowable Fiber Concentration, the laboratory that analyzed the air sample shall immediately notify the Contractor's Superintendent and the Environmental Consultant.

D. Maximum Allowable Fiber Concentrations:

- Outside all Regulated Work Areas: 0.01 f/cc (fibers per cubic centimeter by PLM) or below pre-abatement.
- 2. Inside Isolated Regulated Work Area: 0.1 f/cc.
- 3. Inside Non-Isolated Regulated Work Area: 0.01 f/cc or below pre-abatement levels.
- 4. Post-Abatement: 0.01 f/cc.
- E. Procedures: Immediately upon being notified of fiber concentration in excess of the Maximum Allowable Fiber Concentration, the Contractor shall perform the following steps in the order presented, at no additional cost to the Owner:
 - 1. Stop abatement work and identify source of high fiber counts.
 - Corrective Actions: Immediately correct containment breaches, pressure differential
 changes and potential cause of high fiber counts. The Environmental Consultant will
 determine the affected area considered to be contaminated and the proper cleaning to
 be performed by the Contractor at no additional cost to the Owner.
 - Clean the affected area. Cleaning will include wet methods and HEPA vacuuming.
 - 4. Re-sample air until fiber counts are determined to be below the specified maximum levels.
 - 5. Secure and repair containment barriers, repair or add equipment, modify work procedures, and make other changes to reduce fiber counts.
 - Resume work and air monitoring.
 - 7. Performance: Work shall be performed in a skillful manner representing industry standards. Environmental Consultant shall require Contractor to remove from the work

site employees and subcontractors the Environmental Consultant deems incompetent, careless or objectionable.

8. Additional Costs:

a. The Contractor shall be responsible for costs of any testing, cleanup, repair, down-time loss, etc. that is a result of the Contractor's negligence, poor maintenance of isolated areas, improper procedures or airborne fiber concentrations above the Maximum Allowable Fiber Concentrations.

PART 2 PRODUCTS

2.1 PROTECTIVE CLOTHING AND EQUIPMENT

- A. Provide approved clothing per WAC 296-62 for all workers and all official representatives of the Owner, State or other governmental entity, and the Environmental Consultant who may inspect or visit the project. Work clothes shall consist of disposable full-body coveralls and head and foot covers ("Tyvek" or approved), boots, or sneakers. Eye, hearing, fall protection, gloves and hard hats shall be available, as required by job site conditions.
- B. Respirators: At a minimum, respiratory protection shall be approved by the National Institute for Occupational Safety and Health (NIOSH), United States Department of Labor, and U.S. Department of Health, Education and Welfare, Centers for Disease Control, in accordance with WAC Chapter 296-62-071. Respiratory protection shall provide workers with a maximum calculated fiber level inside the mask of 0.01 f/cc.
- C. Selection: As part of the Contractor's Respiratory Protection Program, all workers shall be provided with a selection of brands and sizes of respirators to choose from. At a minimum, all workers shall be quantitatively or qualitatively fit-tested at the time of respirator selection per WAC Chapter 296-62-07715.
- D. Contractor shall supply replacement filter cartridges as required. Cartridges, which have become wet or clogged, shall be replaced immediately.
- E. Contractor shall provide personal protective equipment and supplies to the Environmental Consultant and authorized visitors for use on the site.
- F. Air-purifying Equipment: Air-purifying equipment shall consist of High-efficiency Particulate Air (HEPA) filtration systems. No air movement system or air equipment shall discharge asbestos fibers outside the work area. Each unit shall be capable of variable volume from a minimum of 500 CFM to at least 1700 CFM under load and shall have at least 2 stages of prefiltration ahead of the HEPA final filter. Each unit shall be equipped with an elapsed time indicator (hour meter), static pressure gauge with low flow alarm, and be overload protected. At the Contractor's option, each unit shall be equipped with heat and smoke sensors, which will visually and audibly warn workers and shut unit fan down within 30 seconds. The units shall be: Micro-Trap Portable Air Filtration System manufactured by Asbestos Control Technology, Inc. or approved equal.
- G. Water-purifying Equipment: Capable of removing all fibers longer than 5 microns or as required by local regulations from water used in abatement work and decontamination showers. Control Resource Systems, Inc. "AQUA-HOG" or approved equal.
- H. Vacuum Equipment: all vacuum equipment utilized in the work area shall be High-efficiency Particulate Air (HEPA) equipment, and suitable for wet/dry usage.
- I. Scaffolding: Scaffolding, as required to accomplish the specified work, shall meet all applicable safety regulations including WAC Chapter 296-155-475 to 48536. Special scaffolding shall have drawings and calculations stamped and signed by a civil or structural engineer registered in the State of Washington.

- J. Transportation Equipment: Transportation equipment, as required, shall be suitable for loading, temporary storage, transit, and unloading of contaminated waste without exposure to persons or property. Equipment shall have a hard bottom and sides. If equipment is rented, notify rental agency in advance, in writing, of intended use of equipment.
- K. Electrical: Electrical tools, equipment and lighting shall meet all applicable codes and regulations, including WAC Chapter 296-155-426 to 462. Ground fault protection as required by OSHA, shall be in effect at all times. Contractor shall take all additional precautions and measures necessary to ensure a safe working environment during wet removal.
- L. Glove Bags: Bags shall be clean poly bags, seamless at the bottom, with pre-printed asbestos warning labels, 6-mil PVC with attached TYVEK arms and latex gloves. Bags shall be "Profo' Bag" manufactured by Asbestos Control Technology, Inc., or "Asbest'O'Saf/SAC" by Control Resource Systems, Inc., or approved equal.
- M. Remote Filter Housing: Stainless steel housing with pre-filters and HEPA filter sealed to cabinet flanges by Century Equipment "Advance Guard II" or approved equal.
- N. Other Tools and Equipment: Provide other suitable tools for the removal, enclosure, encapsulation, patching, and disposal activities including but not limited to: hand-held scrapers, wire brushes, sponges, and rounded-edge shovels.
- O. Lighting: Provide adequate lighting for safe execution of work and for Environmental Consultant to perform visual inspections of work areas.
- P. Pre-manufactured Remote Decontamination Facility: Remote decontamination facilities shall be in compliance with all applicable state, federal and local codes and regulations and function in accordance with these specifications.

2.2 MATERIALS

- A. Plastic Sheet: Plastic sheet shall be flame-retardant polyethylene material, minimum thickness of 6-mil, sized in lengths and widths to minimize the frequency of joints. Exterior applications require reinforced plastic sheeting.
- B. Plastic Bags: Plastic bags shall be 6-mil polyethylene printed with warning labels with waterproof print and permanent adhesive in accordance with WAC Chapter 296-62-07721, OSHA, DOT and EPA regulations. Permanently mark the label with the date the material was collected for disposal, the name of the waste generator, the name and affiliation of the certified asbestos supervisor, and the location at which the waste was generated.
- C. Tape: Tape shall be capable of sealing joints of adjacent sheets of plastic and for attachment of plastic sheet to finished or unfinished surfaces of dissimilar materials and capable of adhering under dry and wet conditions, including use of amended water. Minimum of 2" wide tape must be used. Do not use polyethylene tape.
- D. Disposal Containers: Disposal containers shall be suitable to receive and retain any asbestos-containing or contaminated materials until disposal at an approved site. The containers shall be labeled with waterproof print and permanent adhesive in accordance with WAC Chapter 296-62-07721, OSHA, DOT and EPA regulations. Permanently mark the label with the date the material was collected for disposal, the name of the waste generator, the name and affiliation of the certified asbestos supervisor, and the location at which the waste was generated. Containers must be both airtight and watertight, and have hardtop, bottom and sides.

E. Warning Labels: Warning labels on plastic bags and disposal containers shall include the following information:

DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST

F. Warning Signs: Warning signs shall be provided and displayed at each regulated area in accordance with WAC Chapter 296-62-07721. Warning signs shall include the following information:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
WEAR RESPIRATORY PROTECTION AND
PROTECTIVE CLOTHING IN THIS AREA

- G. Amended Water: Clean potable water containing a surfactant additive. The surfactant additive shall be 50% polyoxyethylene ether and 50% polyethylene ester, or equivalent, and shall be mixed with water at a concentration of one ounce surfactant to 5 gallons of water, or as recommended by the manufacturer in the case of an equivalent.
- H. Encapsulants (Sealants): Encapsulants shall be of the bridging or penetrating variety and shall be listed as "satisfactory" by the EPA. Penetrating Encapsulant: No. 207 Special Sealer #33775-27A as manufactured by Makus-Cincinnatus, Inc.; "Asbestop 30B-2" as manufactured by Asbesco Corp.; "Cable Coating 22-P" as manufactured by American Coatings Corp., or approved. Bridging Encapsulant: Decadex Firecheck, manufacturer's standard color "Magnolia", as manufactured by Pentagon Plastics, Inc.; "Cable Coating 2-B", manufacturer's standard color gray, as manufactured by American Coatings Corp.; or approved equal.
- Other Materials: Provide materials such as lumber, nails and hardware, which may be required to construct and dismantle the decontamination area and barriers isolating the work area.
- J. Spray Glue: Spray glue shall be a heavy-duty adhesive in aerosol can, "CDC Spray Glue" as manufactured by AMREP, Inc., or approved equal.
- K. Chemical mastic Removal Agents: Chemical removal agents will not be permitted.

PART 3 EXECUTION

3.1 WORK AREA PREPARATION

- A. Access to Work Area by Others
 - 1. Abatement Contractor shall establish a regulated area prior to removal of roofing materials.
 - Except for emergency personnel, the Contractor shall limit access to the work area to authorized visitors.
 - 3. The Abatement Contractor shall provide protective clothing, respirators and equipment for all authorized visitors, as specified.

- 4. All authorized visitors shall be subject to the personnel protection provisions specified above and shall sign in and out on the Worksite Entry Logbook.
- B. Personnel Protection During Work in Non-Isolated Work Areas
 - 1. Work clothes and respiratory protection as described in this section.
 - Clothing: Workers shall wear two layers of coveralls after removal of street clothes.
 Worker decontamination will consist of personal decontamination in a regulated area
 over drop plastic sheeting with a HEPA vacuum and wet methods. The first layer of
 coveralls must be removed when exiting the work area.
 - 3. Workers shall not eat, drink or chew gum at the worksite except in the designated area. Smoking or using other tobacco products is prohibited.
 - Workers shall be fully protected with respirators and protective clothing immediately
 prior to the first disturbance of asbestos-containing or contaminated material and until
 final cleanup is completed.

C. Emergency Precautions

- 1. Emergency Exits: The Contractor shall establish emergency and fire exits from the work area. Contractor shall ensure these exits are well marked and remain unobstructed.
- First Aid: The Contractor shall be prepared to administer first aid to injured personnel
 after decontamination. Seriously injured personnel shall be treated immediately or
 evacuated without delay for decontamination.
- 3. Fire Department: Contractor shall notify the local fire department of the asbestos abatement project prior to beginning work area preparation.
- 4. Contractor shall provide fire extinguishers at all abatement work areas.
- 5. Emergency Clean-up: Contractor to submit to the Environmental Consultant for approval, an emergency control and cleanup plan to be followed in the event of asbestos contamination during work in non-isolated work areas. Contractor shall ensure all workers are thoroughly familiar with approved plan.

D. Building Security and Protection

- The Contractor shall post adequate warning signs at all potential entrances to work areas.
- Building Protection: Contractor shall protect all existing fixed equipment, existing building finishes that are to remain, and existing systems and functions from damage during the abatement process. Any damage to existing building, services, and/or equipment shall be remedied by the Contractor at his expense.
- 3. Power Failure: Contractor shall notify Environmental Consultant and Owner immediately when a power failure occurs. Asbestos abatement work will stop and the work area will be misted with water. If power failure exceeds 15 minutes, workers shall use appropriate personnel decontamination procedures and shall seal the work area. Precautions to prevent visible emissions will be performed under the direction of the Environmental Consultant.
- 4. Contractor shall maintain access and use of existing fire lanes and maintain security measures to prevent unauthorized access, theft or vandalism.

3.2 NON-ISOLATED WORK AREA PREPARATION

- A. Performance: Contractor shall perform the following procedures in the order in which they are presented for work in non-isolated work areas according to the approved work plan. Any alternative control measures shall be approved by the Environmental Consultant and performed in accordance with WAC 296-62 and 29 CFR 1926.1101.
 - 1. install critical barriers at all roof-level HVAC openings, doors, windows and other openings into the building within or adjacent to the work areas.
 - 2. Have emergency cleanup equipment and supplies, including HEPA vacuum, amended water, disposal bags, buckets, towels and sponges, on hand prior to start of abatement work.
 - Compliance: No asbestos abatement work shall occur unless the work area has been found acceptable for Specification compliance by the Environmental Consultant. Notifications to perform asbestos abatement and a Good Faith Inspection report shall be posted at the work site.

3.3 REMOVAL OF ASBESTOS-CONTAINING MATERIALS IN NON-ISOLATED AREAS

- A. Contractor shall apply spray coat of amended water to asbestos materials to be removed. Keep material damp during entire removal process. Immediately place asbestos-containing materials in properly labeled asbestos waste containers following removal.
- B. Contractor shall maintain a safe and uncluttered work site including staging area and work area and waste load-out area.
- C. Contractor shall promptly remove waste from the regulated area to the waste load-out area.

3.4 DISPOSAL

- A. Regulations: The Contractor shall determine current waste handling, transportation, and disposal regulations for the work site and for each waste disposal landfill. The Contractor must comply with these regulations and U.S. Department of Transportation, PSCAA Regulation III, Article 4 and EPA requirements.
- B. Waste Load-Out:
 - Contractor shall coordinate activities to ensure that all asbestos-containing waste is
 properly containerized and removed from all work areas prior to the end of each work
 shift. Contractor shall prevent the accumulation of waste containers within work areas
 and shall ensure that all waste containers are stored in lockable, properly sealed
 storage container(s) at the end of each work shift.
 - Contractor shall perform waste-load out activities during pre-approved time periods via pre-approved routes per Work Plan approved by Owner and Environmental Consultant.
- C. Submit disposal receipts (or "letter of acknowledgment") and chain-of custody for waste as specified. Contractor shall make available all disposal manifests and receipts upon request from the Environmental Consultant or Owner.

SECTION 02 83 00

LEAD-RELATED ACTIVITIES

PART 1 GENERAL

1.1 SUMMARY OF WORK

- A. General work items include, but are not limited to:
 - 1. Compliance: Activities requiring compliance with this Section include the impact of painted coatings or building components (such as lead vent pipes, lead gutters, or painted coatings) containing lead as defined in these Specifications and Drawings. Impacts are anticipated to include, but are not limited to: manual demolition, mechanical demolition, cutting, sawing, drilling, sanding, surface prepping and scrapping, welding or torch-cutting and incidental impact to painted items. See Section 011110, Summary of Hazardous Materials Work, for information regarding lead items in areas of the Work.
 - Handling: Conduct activities involving lead-containing paint and lead-containing components under Work of this Contract in accordance with this Section and current applicable state and federal regulations including WAC 296-62-07521: "Lead"; WAC 296-155-176: "Occupational Health and Environmental Control"; and 29 CFR 1926.62: "Lead Exposure in Construction -Interim Final Rule".
 - 3. Waste Disposal: Disposal of demolition debris as "dangerous" according WAC 173-303 is not included in the Work. It is anticipated that waste produced by demolition activities will not require disposal as "dangerous" related to lead.
 - 4. Monitoring: Monitoring of airborne concentrations of lead in accordance with WAC 296-155-176 and this Section. The intent of this Section is to reduce and maintain employee exposure to lead and surrounding environmental airborne concentrations at or below the permissible exposure limit.

1.2 RELATED SECTIONS

- A. Work performed under this specification section is governed by related specification sections, plans or drawings not to the following:
 - 1. Division 1: Section 011110, Summary of Hazardous Materials Work

1.3 SUBMITTALS

- A. The Work may not proceed until complete Pre-Work Submittal package has been reviewed and approved by the Environmental Consultant. Allow ten days for Owner review.
- B. Additional requirements for submittals are also described in other sections of these specifications. The requirements in this section pertain to lead-related activities.
 - 1. Lead Compliance Program: Submit a site-specific lead compliance program in accordance with WAC Chapter 296-155. The plan shall be developed and implemented to provide engineering, work practice and administrative controls to reduce and maintain employee exposure to lead at or below the permissible exposure limit. The plan will include at a minimum task-specific description of activities; controls; personnel; procedures; method of compliance; technology used to meet compliance; air monitoring plan; detailed schedule; work practice program; administrative controls and other relevant information. Implementation of work practices not

- described in the Lead Compliance Plan will not be permitted until an amendment to the submittal is reviewed by the Environmental Consultant and Owner.
- 2. Medical Program: Submit written proof medical exam program complies with OSHA Lead Regulations 29 CFR 1910.2 and 1926.62, and WAC Chapter 296-155. Initial medical surveillance consisting of biological monitoring in the form of blood sampling and analysis for lead and zinc protoporphyrin levels shall be submitted for each employee occupationally exposed to lead at or above the action level.
- 3. Worker Training Program: Submit written proof indicating that all employees impacting lead-containing materials have received training per 29 CFR 1926.62 and WAC Chapter 296-155. Proof shall include a signature from the Contractor's Principal indicating that all employees performing lead related activities have completed such a program.
- 4. Respirator Program: Submit written proof indicating respirator program complies with all parts of OSHA Lead Regulations 29 CFR 1910.134 and 1926.62, and WAC Chapter 296-155.
- 5. Waste Stream Calculations: Submit a detailed breakdown of waste stream constituents and associated volumetric calculations for review by the Environmental Consultant to determine the need for additional waste stream calculation or further waste characterization.

C. Final Submittals:

- 1. Project Record Documents: Provide record of lead control activities including disposition of each type of lead-containing item removed from the site.
- Air Monitoring: Submit copies of all air monitoring data (including sample data sheets), chainof-custody documentation and calibration records related to the initial exposure assessment for workers impacting lead-containing materials.
- 3. Disposal: Submit completed disposal manifests and bills-of-lading for any waste disposed of as "dangerous" per WAC 173-303, or any items recycled as lead.

1.4 AIR MONITORING

- A. Testing Laboratory: An Independent Testing Laboratory shall be retained by the Contractor for all lead air analysis. All exposure monitoring analysis shall be performed in accordance with 29 CFR Part 1926.62 and WAC Chapter 296-155. The laboratory must participate in the ELPAT Program and be a member of AIHA. Air sample collection may be performed by an Industrial Hygienist or the Contractor's trained supervisor at the Contractor's option.
- B. Sample Documentation: Documentation shall be kept for each filter sample procured as to worker sampled, social security number, activity, work area location, date and time taken, volume of air drawn through filter, pump identification number and calibration. Documentation shall indicate in what areas tests were taken and shall clearly indicate the specified maximum allowable levels for each area tested. Report all data. Complete laboratory chain-of-custody records.
- C. Analysis Procedures: The samples shall be collected on 37 mm filters and analyzed within 24 hours using NIOSH Analytical Method No. 7105 or 7082. The containers shall be clearly labeled with project name and Sample Number and shall become property of the Owner at work completion at the Owner's request.
- D. Contractor's Sampling During Lead-Related Activities:
 - Initial exposure: Exposure monitoring shall be performed by the Contractor during impact of representative lead-painted building components and metals-containing masonry mortar as required by WISHA regulations. It is the responsibility of the Contractor to determine potential exposures during the Work and provide exposure monitoring as needed.
 - 2. Most Contaminated Worker: The Contractor shall determine which worker(s) in each work area is probably experiencing the most severe exposure. This is the "Most Contaminated Worker(s)".

- An 8-hour TWA samples shall be collected on this worker(s). Worker shall wear a personal sampling pump and the sample shall be drawn from the breathing zone of this worker.
- Number of samples: The number of air samples collected shall be as defined in the approved Metals Compliance Program. Historical measurements per WAC 296-155 may be used to satisfy continuing exposure assessment requirements.

E. Work Area Monitoring

 Monitoring: The Owner reserves the right to monitor Contractor's performance via air, dust wipe and TCLP samples during lead related activities, in addition to the Contractor's exposure monitoring and testing. Sampling by the Owner will not be available for use as the Contractor's Initial Exposure Assessment.

2. Quality Control

- a. Maximum allowable airborne concentrations: Contractor shall ensure that at all times airborne concentrations of metals outside work areas are at or below the applicable employees' respiratory exposure limits for metals impacted by the Work as defined by WISHA and other applicable regulations.
- b. Immediately upon being notified of concentrations exceeding the specified maximum allowable levels, the Contractor shall perform the following steps in the order presented, at no additional cost to the Owner: Stop lead/metals related activities work, identify source of high lead concentrations, develop plan with Environmental Consultant and Owner to complete lead related activities in a manner to prevent visible emissions and elevated lead levels.

1.5 SUBCONTRACTORS

A. Subcontractors employed by the Contractor shall be bound to all the work and safety standards specified. Subcontractor's personnel shall meet requirements as specified and shall be supervised by the Contractor during performance of this work.

1.6 LIABILITY

A. The Contractor is an independent contractor and not an employee of the Owner, Architect or Environmental Consultant. The Owner and the Environmental Consultant shall have no liability to the Contractor or any third persons for Contractor's failure to faithfully perform and follow the provisions of these Specifications and the requirements of the governing agencies. Notwithstanding the failure of the Owner or the Environmental Consultant to discover a violation by the Contractor of any of the provisions of these Specifications, or to require the Contractor to fully perform and follow any of them, such failure shall not constitute a waiver of any of the requirements of these Specifications which shall remain fully binding upon the Contractor.

PART 2 PRODUCTS

2.1 PROTECTIVE CLOTHING AND EQUIPMENT

A. Personnel Protective Equipment and materials for metals-related activities shall be provided per WAC 296-155.

PART 3 EXECUTION

3.1 WORK PRACTICES

- A. Activities with the potential for visible emissions, including, but not limited to: dry saw-cutting, roto-hammering, scraping, power sanding, grinding, sand-blasting, etc. shall be performed with all applicable worker protection and environmental controls in place pending review of the Contractor's Negative Exposure Assessment by the Environmental Consultant and the Owner. Negative Pressure Enclosures are not specifically required should general dust control measures prevent migration of debris from work areas.
- B. Housekeeping: Maintain all surfaces as free as practicable of accumulations of metals-containing debris, residue or slurry, and perform clean-up of work areas as necessary according to applicable regulations, including WAC 296-155-17617. Ensure prompt cleanup of any dust, debris or runoff from impacts to masonry mortar using wet-wiping and HEPA-vacuuming, or other method described in the "Pre-Work Submittals".
- C. Environmental Controls: It is the responsibility of the Contractor to prevent distribution of airborne or settled dust/debris beyond the immediate work zone.
- D. Methods to achieve compliance are to be implemented as described in the "Pre-Work Submittals" outlined under Item 1.3-A-1.
- E. Work Practices: Perform work impacting lead-containing painted coatings, lead components or masonry mortar in accordance with the methods outlined in the lead compliance plan. Use procedures and equipment required to limit occupational and environmental exposure to lead when lead-containing paint is impacted. The procedures employed by the Contractor shall not create the potential for contaminating surrounding areas or materials with lead-containing dust. Dust generation shall be minimized at all times.

3.2 Disposal Procedures:

- A. Contractor is to perform waste characterization of the anticipated general waste stream as necessary to facilitate disposal of waste according to all applicable local, state and federal regulations and codes.
- B. Provide results of any such characterization, along with a volumetric breakdown of the waste stream constituents included in the sample analyzed, to the Owner upon receipt from analytical laboratory.
- C. The Owner reserves the right to perform quality control waste stream characterization at their sole discretion. In the event of conflicting test data obtained by the Contractor and Owner, the Owner's test data will take precedence. Allow 48 hours for quality control sampling and analysis by the Owner at their sole discretion prior to transporting waste.
- D. Package, transport and dispose of demolished components as "dangerous" waste per WAC 173-303 as required by waste characterization data. Disposal of demolition debris as "dangerous" per WAC 173-303 related to lead is limited to disposal facilities pre-approved by the Owner.
 - 1. The Contractor is responsible for the proper handling, transportation and disposal of any dangerous waste generated by elective segregation of waste constituents, or by disposal of painted coatings comingled with asbestos-containing materials, at no cost to the Owner.

PROJECT MEMO



TO: Stephanie Mehr-Hickson

Facilities Coordinator

City of Tacoma Public Works, Facilities

Management

747 Market Street, Rm 744

Tacoma, WA 98402

FROM: Tom Dargan, PE

Tacoma - (253) 383-2422

PROJECT NO.: 2190432.17

PROJECT NAME: City of Tacoma Site 8 Building Demolition

April 4, 2023

SUBJECT: SEPA Review Exemption

The City of Tacoma Public Works Department wishes to demolish the existing building located 1129 Dock Street, Tacoma, WA 98402. The demolition project will only consist of the removal of the 13,000 square-foot structure, and the concrete slab will be protected and remain in place.

DATE:

AHBL, Inc. is supporting the City of Tacoma with preparation of drawings, reports, and technical specifications for the bidding of the project. During project design and coordination, it was determined that the existing building exceeds the 12,000 square feet threshold for SEPA review. After further discussion and review from City of Tacoma Development Services, it was discovered that the proposed project site lies within the South Downtown Subarea Plan (Ordinance 28913) and is covered under the final Environmental Impact Statement (EIS) dated August 28, 2013.

The South Downtown Subarea Plan EIS states that no additional SEPA review will be required for site specific development within the Subarea if it meets the following criteria: (1) is consistent with the South Downtown Subarea Plan, (2) is consistent with the "Planned Action" ordinance enacted by the City Council, and (3) vests within 10 years of issuance of the Final EIS. After 10 years of issuance of the Final EIS, no additional SEPA review will be required for site specific development that is proposed within the Subarea if it (1) is consistent with the South Downtown Subarea Plan, (2) is consistent with the "Planned Action" ordinance enacted by the City Council, (3) is not an essential public facility, 5 and (4) vests within 30 years of the issuance of the Final EIS.

The proposed demolition project fits within the scope of the EIS, therefore no separate SEPA review will be required for the Site 8 Building Demolition project.

Sincerely,

Tom Dargan, PE AHBL, Inc.