# PART 1 - ADDENDUM

## 1.1 TITLE

.1 This Addendum shall be known as:

Addendum 3
TFM-026-25 – L-503-25 Library Cooling Tower Replacement

.2 The Date of the Addendum is Tuesday, May 26, 2026

## 1.2 PRECEDENCE

.1 This amendment to the bid documents is effective immediately.

.2 This Addendum shall form an integral part of the original bid documents and is to be read in conjunction therewith.

.3 The Addendum shall take precedence over previously issued bid documents with which it may prove to be at variance.

## 1.3 GENERAL

.1 The General Conditions shall govern all phases of the Work covered by this Addendum.

.2 Acknowledge receipt of this addendum in the Tender and Acceptance form.

## 1.4 PURPOSE

.1 The purpose of the Addendum is to inform bidders of the changes, deletions and additions to be added to the bid documents.

.2 The purpose of the Addendum is to inform bidders that the tender deadline for receipt of tenders has changed. **The new deadline is 3 p.m. NDT on Thursday, Jun 4th, 2026**. The Webex access code is now: 2772 875 6687.

## 1.5 CHANGES TO DRAWINGS

.1 None.

## 1.6 CHANGES TO SPECIFICATION

.1 Delete section 00 01 10 Table of Contents
.2 Replace with attached section 00 01 10 Table of Contents
.3 Add attached 01 21 00 Allowances
.4 Add attached 02 83 11 Lead Moderate Precautions
.5 Add attached Appendix E Lead Abatement Tier 3 Procedures

## 1.7 QUESTIONS AND RESPONSES

1. On drawing M1.3, on the Chilled / Condensing Water Schematic – New Layout, note number 4 states New Drain Solenoid. However, on the Chilled / Condensing Water Schematic – New Work – Controls it says to reuse existing drain solenoid control. Please confirm if we are to reuse the existing solenoid control valves.

   **RESPONSE:** New 'line size' drain valve solenoid to be provided and reuse existing controls per control diagram. Confirm voltage prior to submitting shop drawings

2. In the specification section 23 05 00, 3.1.4 it states "Paint all new cooling tower exposed piping to match existing. Paint all existing piping located in cooling tower room." Can the spec for the required paint for the piping and support stand be provided

   **RESPONSE:** Utilize high quality exterior rated epoxy primer and paint.

3. Specs say the cooling tower must stay operational during cooling season (April 1 to Oct 31). Please confirm if the intent is to start this job after Oct 31 or two weeks after award. If this work is expected to happen during cooling season, please confirm if temporary cooling (equipment, piping, power, controls) is required under this contract.

   **RESPONSE:** Scope of work for this project is to be completed outside of cooling season. Construction is not to begin two weeks after award. It is expected that the submission of all safety documents and shop drawings be submitted after contract award to allow for equipment to be ordered and to deter starting delays once cooling season ends.

4. If this project is done during cooling season, is night and/or weekend work anticipated for this project?

   **RESPONSE:** Yes, due to the function of the building as being a quiet environment, some of the louder work may be required to be completed after hours or during weekends.

5. Drawings reference Baltimore Aircoil. Please confirm if equal cooling tower manufacturers meeting the spec are acceptable.

   **RESPONSE:** Alternate equipment will be accepted subject to review and confirmation that the proposed equipment meets consultant specification. Please refer to Part 3 – Terms and Conditions for the OCB Process, Section 6.4 – Substitution of Materials.

6. Please confirm who is responsible for checking existing structural capacity of the cooling tower supports. If structural upgrades are required, including issues with existing spring vibration isolators, please confirm if this is by Owner or to be handled as a change order.

   **RESPONSE:** New cooling tower to match existing dimensions/weight as listed in the schedule. Contractor required to make adjustments to existing spring isolators

7. Please confirm if asbestos or other hazardous materials are present in areas impacted by the cooling tower replacement.

   **RESPONSE:** The existing paint on the steel support structure and on the process piping has been tested and confirmed to be lead-containing. Attached to the end of the addendum are the abatement procedures required for lead paint removal.

8. Will seismic be required?

   **RESPONSE:** Seismic restraints not required.

9. Drawings note temporary piping as required. Please confirm the extent of temporary piping, whether full system operation must be maintained during demo and re-install, and if temporary bypasses or phased tie-ins are acceptable.

   **RESPONSE:** Refer to scheduling response above.

10. Is the intent for make up water to be isolated and capped during work on cooling towers?

    **RESPONSE:** All domestic water to other building functions to remain fully operational during construction

11. Will Scaffold be required for safe access to complete the cooling tower replacement work?

    **RESPONSE:** Contractor is responsible for the means and methods required to complete work

12. Please confirm if there's any access or rigging constraints for removal of existing cooling towers and installing new?

    **RESPONSE:** Contractor is responsible for the means and methods required to complete the work.

13. What are the specifics on the Honeywell system that it is currently in place that we will need to connect to (model number, connection types available, etc.)

    **RESPONSE:** Contractor responsible for means and methods required to complete work.

14. Can we have access to more detailed control drawings or the logic currently used on this system for quoting purposes? Along with the screens?

    **RESPONSE:** Controls to interconnect to existing systems as indicated in contract documents. No additional information will be provided

15. The screens currently in place appear to be just for display, but the scope mentions using them for control; Are you looking for touchscreen HMI's for this, or continue with just display and have manual button controls as mentioned in other areas of the scope?

    **RESPONSE:** No HMI required

16. Please advise if there is a deadline or planned duration for this work?

    **RESPONSE:** Scope of work for this project is to be completed outside of cooling season. It is expected that the submission of all safety documents and shop drawings be submitted after contract award to allow for equipment to be ordered and to deter starting delays once cooling season ends. May 2027 would be the estimated start of next years cooling season, all commissioning/testing to be completed by this date.

17. Please confirm if what the duration of the shut down can be for both units? We estimate up to a month of work.

    **RESPONSE:** Refer to scheduling response above. No shut down acceptable during cooling season

18. Please confirm if ducting on ceiling running across the tower room can be removed to allow space for equipment movement.

    **RESPONSE:** Contractor responsible for means and methods required to complete work. Provided removal does not impact operational systems it may be considered

19. Please confirm if all water can be shut to/from the tower room or if has to be maintained to operate down-the-line equipment?

    **RESPONSE:** All work to be completed outside cooling season so operation of cooling water not necessary

20. If it has to be maintained please advise outage window?

    **RESPONSE:** See above

21. Please advise if access outside roof has loading capacity to support new and old equipment? Should we need to roll equipment to edge to be lifted to ground.

    **RESPONSE:** Assume no additional loading of roof is possible on adjacent roof. Contractor to be responsible to engage structural engineer to review temporary roof loading allowance and provide written confirmation of any temporary loading planned. Contractor to also protect existing roof membrane.

22. As the main lobby access will need to be restricted during lifting operations are there any blackout days time that we cannot preform the lifts? (meaning are they only possible during weekends etc.., we expect several lifts to occur for both building materials and equipment.

**RESPONSE:** Yes, work may be required to be completed after hours or during weekends. Lifts are to be coordinated with MUN Coordinator 5 working days in advance to allow for building notifications. Depending on the nature of the lift, accommodations can be made to allow weekday lifts. Discussion and planning to be discussed further upon award with MUN Coordinator and MUN EHS.

23. We did not see a maintenance access for bringing materials to the 6th floor, does one exist other than via common access points.
    **RESPONSE:** Depending on the size/weight of the materials access can be arranged to the loading bay area of the library and the freight elevator to the 5th floor. Access to penthouse is only available via SO3 stairwell on the 5th level. Elevators are within the library, the contractor to ensure use of elevators limits disruption of occupants.

24. Please advise on the extent of cleaning and flushing required once the new cooling towers are installed, it is unclear in the specifications ?
    **RESPONSE:** All new piping/equipment to the flushed and cleaned per the requirements outlined in Section 23 08 02 of the specifications

25. Please advise if a structural survey has been done on the roof of the library to ensure it will be able to support the weight of the old new cooling towers being moved across it during the demo phase and the new during the installation phase?
    **RESPONSE:** See response to question 21

26. I would like to request a site visit for the above noted project, the purpose of this visit would be to let the Crane / Heavy Lift contractor to view the site and take measurements. Please advise.
    **RESPONSE: There will be one final non-mandatory site visit on May 28th @ 2:30pm beginning in the lobby of the QEII library. Roof access will be limited.**

27. For Painting the support structure is there a product or painting system that is required?

    **RESPONSE:** See answer to question 2

**END OF ADDENDUM**

**PROCUREMENT AND CONTRACTING DOCUMENTS GROUP**

## DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS



**Open Call for Bids Strategic Procurement Sections**



**General Conditions and Agreement between Owner and Contractor for the Stipulated Price Contract**



## DIVISION 1 - GENERAL REQUIREMENTS

**DIVISION 25 - INTEGRATED AUTOMATION**



**END OF SECTION**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

.1 Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

.1 Types of items described in this Section:
.1 Administrative and procedural requirements governing allowances.
.1 Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to the Contractor. If necessary, additional requirements will be issued by Change Order.
.2 Types of allowances include the following:
.1 Revise list below to suit Project.
.2 Lump-sum allowances.
.3 Unit-cost allowances.
.4 Quantity allowances.
.5 Contingency allowances.
.6 Testing and inspecting allowances.

.2 Types of items you will not find described in this Section:
.1 Procedures for using unit prices.
.2 Procedures governing the use of allowances for testing and inspecting.
.3 Divisions 02 through 49 Sections for items of Work covered by allowances.

1.3 SELECTION AND PURCHASE

.1 At the earliest practical date after award of the Contract, advise Owner's Representative of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.

.2 At Owner's Representative's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

.3 Purchase products and systems selected by Owner's Representative from the designated supplier.

1.4 SUBMITTALS

.1 Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

.2 Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

.3 Submit time sheets and other documentation to show labour time and cost for installation of allowance items that include installation as part of the allowance.

.4 Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 COORDINATION

.1 Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.6 QUANTITY ALLOWANCES

.1 Allowance shall include cost to Contractor of specific products and materials selected by Owner's Representative under allowance and shall include freight, and delivery to Project site.

.2 Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labour, installation, overhead and profit, and similar costs related to products and materials selected by Owner's Representative under allowance shall be included as part of the Contract Sum and not part of the allowance.

.3 Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

.1 If requested by Owner's Representative, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.7 CONTINGENCY ALLOWANCES

.1 Use the contingency allowance only as directed by Owner's Representative for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.

.2 Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, insurance, equipment rental, and similar costs.

.3 Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.

.4 At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

.5 The cash allowance shall not include HST.

1.8 TESTING AND INSPECTING ALLOWANCES

.1 Testing and inspecting allowances include the cost of engaging testing agencies, actual tests and inspections, and reporting results.

.2 The allowance does not include incidental labour required to assist the testing agency or costs for retesting if previous tests and inspections result in failure. The cost for incidental labour to assist the testing agency shall be included in the Contract Sum.

.3 At Project closeout, credit unused amounts remaining in the testing and inspecting allowance to Owner by Change Order.

1.9 ADJUSTMENT OF ALLOWANCES

.1 Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If

applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.

.1 Include installation costs in purchase amount only where indicated as part of the allowance.

.2 If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.

.3 Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

.2 Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labour, installation, overhead, and profit.

.1 Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.

.2 No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

.1 Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

.1 Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

.1 Control Integration Allowance:

.1 Include a control integration allowance of $2500 for use according to Owner’s instructions.

.2 Lump-Sum Allowance:

.1 No Lump Sum Allowances apply to this Work.

.3 Unit-Cost Allowance:

.1 No Unit Cost Allowances apply to this Work.

.4 Contingency Allowance:

.1 No Contingency Allowances apply to this Work.

.5 Testing and Inspection Allowance:

*.1* No testing and Inspection Allowance apply to this Work.

**END OF SECTION**

## PART 1 GENERAL

### 1.1 SUMMARY

.1 Comply with requirements of this Section when performing following Work:

.1 Removal of lead containing paint using power tools with an effective dust collection system equipped with HEPA filter.

.2 Welding, torching, or high temperature cutting of lead-containing surface coatings or materials indoors, with use of an effective fume collector or smoke eater.

.3 Welding, torching, or high temperature cutting of lead-containing surface coatings materials outdoors.

.4 Removal of lead-containing surface coatings or materials by scraping or sanding (including wet sanding) using non-powered hand tools.

.5 Demolition of plaster or other building components that crumble, pulverize or powder and are covered with lead-containing surface coating.

### 1.2 RELATED REQUIREMENTS

.1 Section 02 56 13 Waste Containment.

.2 Section 02 80 00 Hazardous Materials - Scope and Details

.3 Section 02 81 00 Hazardous Material.

.4 Section 02 82 00.01 Asbestos Abatement - Minimum Precautions.

.5 Section 02 82 00.02 Asbestos Abatement - Intermediate Precautions.

.6 Section 02 82 00.03 Asbestos Abatement - Maximum Precautions.

.7 Section 02 83 10 Lead-Containing Paint Abatement - Minimum Precautions.

.8 Section 02 84 00 Polychlorinated Biphenyl Remediation.

.9 Section 02 85 11 Silica - Intermediate Precautions.

.10 Section 02 87 00 Mercury Abatement.

### 1.3 DEFINITIONS

.1 Action level: employee exposure, without regard to usage of respirators, to an airborne concentration of lead:

.1 50 micrograms per cubic meter of air calculated as 8-hour time-weighted average (TWA). Intermediate precautions for lead abatement are based on airborne lead concentrations greater than 0.05 milligrams per cubic meter of air within Work Area.

.2 Authorized Visitors: Consultant and/or Owner, Consultant and representatives of regulatory agencies.

.3 Competent person: individuals capable of identifying existing lead hazards in workplace and taking corrective measures to eliminate them.

.4 HEPA: High Efficiency Particulate Air.

.5 HEPA vacuum: HEPA filtered vacuum equipment with a filter system capable of collecting and retaining fibres greater than 0.3 microns in any dimension at 99.97% efficiency.

.6 Sprayer: garden reservoir type sprayer or airless spray equipment capable of producing mist or fine spray. Must be appropriate capacity for scope of work.

## 1.4 INSTRUCTION AND TRAINING

.1 Provide instruction and training to all workers including the following:

- .1 Hazards of lead.
- .2 Use, care and disposal of protective equipment (including but not limited to respirators and filters) and clothing that would be used and worn during abatement work, including:
  - .1 Limitations of equipment.
  - .2 Inspection and maintenance of equipment.
  - .3 Proper fitting of equipment.
  - .4 Disinfecting and cleaning of equipment.
- .3 Personal hygiene to be observed when performing the work.
- .4 The measures and procedures prescribed by this section including decontamination of the worker.
- .5 Instruction and training must be provided by a competent person.

## 1.5 PERSONAL PROTECTION

.1 Provide the following respiratory protection to all personnel, at minimum:

- .1 Non-powered half-face respirators with P100 high efficiency cartridge filters.
- .2 Non-powered full-face respirators with P100 high efficiency cartridge filters for spray application of lead-containing surface coatings.

.2 Provide protective clothing, to all personnel entering the Abatement Work Area, including:

- .1 Dust impermeable gloves appropriate for the work being completed.
- .2 Disposable protective clothing that does not readily retain or permit skin contamination, consisting of full body covering including head covering with snug fitting cuffs at wrists, ankles, and neck.

.3 Provide protective clothing, to all personnel entering the Abatement Work Area.

.4 Wear hard hats, safety shoes and other personal protective equipment required by applicable construction safety regulations.

.5 Lead-specific soaps and hygiene indicators are recommended to be provided for shower and hand-wash stations.

**1.6 Inspections**

.1 The following Milestone Inspections are to be scheduled:

.1 Milestone Inspection - Clean Site Preparation

.2 Milestone Inspection – Bulk Removal Inspection

.3 Milestone Inspection - Visual Clearance

## PART 2 PRODUCTS AND FACILITIES

**2.1 MATERIALS**

.1 FR polyethylene: 0.15 mm (6 mils) woven fibre reinforced fabric bonded both sides with polyethylene.

.2 Polyethylene: 0.15 mm (6 mils) unless otherwise specified; in sheet size to minimize joints.

.3 Slow - drying sealer: non-staining, clear, water - dispersible type that remains tacky on surface for at least 8 hours and designed for trapping residual lead-containing paint residue.

.4 Tape: fibreglass - reinforced duct tape suitable for sealing polyethylene under dry conditions and wet conditions using amended water.

.5 Regular Waste Container: an impermeable 0.15 mm thick sealable polyethylene waste bag.

**2.2 Curtained Doorways**

.1 Construct as follows:

.1 Install two flap doors, full width and height of door opening at all doors to Abatement Work Area and both ends of Transfer Room.

.2 Construct each flap door of two layers of polyethylene sheeting with all edges reinforced with tape. Use wood strapping to securely fasten flap doors to head and alternate jambs.

.3 Install weights attached to bottom edge of each door flap.

.4 Provide direction arrows on flaps to indicate opening.

## PART 3 EXECUTION

**3.1 Site Preparation - General**

.1 Approved Supervisor must remain within Work Area during disturbance, removal, or other handling of lead-containing paints.

.2 Provide washing facilities consisting of a wash basin, clean water, soap and towels.

.1 Workers are to use washing facilities each time leaving the Abatement Work Area.

.3 Stored or non-fixed items, including but not limited to equipment, furniture, waste etc., shall be removed from the Abatement Work Area prior to abatement work.

.4 Isolate, at panel, and disconnect existing power supply to Abatement Work Area. Power supply to remaining areas of building must not be disrupted during work of this section.

.1 Lock-out/tag-out power at electrical panels.

.2 Mark/tag any items within or passing through the Abatement Work Area that are to remain live including but not limited to cable, conduit, wire, fixtures, equipment panels, etc.

.5 Shut down HVAC systems serving the Abatement Work Area.

.1 Install polyethylene sheeting over openings in ducts and diffusers and seal.

.2 HVAC to remaining areas of building must not be disrupted during work of this section.

.3 System shall remain inoperative until completion of work, unless ducts can be effectively capped.

.4 Perform work at scheduled times after shutting down HVAC systems affecting the Abatement Work Area.

.6 Remove visible dust from all surfaces in the work area including those to be worked on, using HEPA Vacuums or wet wiping.

.7 Provide amended water for wetting materials, and adequate method of wetting (garden sprayers, airless sprayers, etc.).

.8 Provide electrical power and shut off for operation of powered tools and equipment. Provide ground fault interrupter circuits on power source for electrical tools, in accordance with applicable CSA Standard.

.1 Ensure safe installation of electrical lines and equipment.

.9 Do not use compressed air to clean or remove dust or debris.

.10 Frequently and at regular intervals during the work, clean up dust and waste using HEPA vacuums and/or wet sweeping or mopping.

.11 Frequently and at regular intervals, place all waste in waste containers.

.12 Immediately upon completion of work, clean area with HEPA vacuum and/or wet sweeping or mopping.

**3.2 Site Preparation –Enclosure Required**

.1 Install Curtained Doorways.

.2 Install polyethylene sheeting at openings in walls (as required) and seal.

.3 Seal openings in floor using tape, caulking, polyethylene, etc. Floor openings are to be sealed independently prior to installation of floor polyethylene.

.4 Install polyethylene sheeting on floors of Abatement Work Area. Use sufficient layers to provide adequate protection for carpeting and equipment.

.1 Cover floors first so that polyethylene on walls is overlapped by at least 305 mm.

.5 Install 6 mil polyethylene sheeting on walls to remain, within the Abatement Work Area., including existing walls that make up, or are within, the Abatement Work Area.

.6 Install one layer of 6 mil polyethylene sheeting so as to protect all equipment and finishes in the Abatement Work Area that may be damaged.

.7 Place required tools to complete the abatement with the Abatement Work Area.

.8 Install temporary lighting in enclosure to a level that will provide for safe and efficient use of work area - minimum 550 LUX.

.9 Establish negative pressure in Abatement Work Areas as follows:

.1 Provide sufficient HEPA filtered negative pressure machines to exchange a volume of air equivalent to that of the Abatement Work Area a minimum of every 20 minutes.

.2 Provide additional HEPA filtered negative pressure machines as required to ensure air flow from Occupied Area into Abatement Work Area.

.3 Operate HEPA filtered negative pressure machines continuously from first disturbance of ACM until completion of dismantling.

.4 Replace prefilters to maintain specified flow rate.

.5 Replace HEPA filter as required to maintain flow rate and integrity of unit.

.6 Discharge HEPA filtered negative air machines to building exterior, where possible.

.1 Direct discharge away from building access points.

.10 Install Signage in clearly visible locations and in sufficient numbers to adequately warn of lead hazard, and lead hazard where appropriate.

**3.3 Maintenance of Abatement Work Area**

.1 Inspect polyethylene sheeting and ensure it is effectively sealed and taped. Repair damage and remedy defects immediately.

.2 Inspect electrical panels and ensure locks and tags are on panels prior to entering the Abatement Work Area.

.3 Inspect HEPA filtered negative pressure machines including discharge ducting at the beginning and end of each working period. Inspection must be performed by competent person.

.4 Maintain Abatement Work Area in tidy condition.

.5 Remove standing water on polyethylene/floor at the end of every shift.

.6 Turn off water supply to any hoses and reduce pressure in hose, prior to leaving the Abatement Work Area at end of shift.

**3.4 Lead Abatement**

.1 Use the procedures described above under *Site Preparation – Enclosure Required*.

.1 Removal of lead-containing surface coatings or materials by scraping or sanding (including wet sanding) using non-powered hand tools.

.2 Demolition of plaster or other building components that crumble, pulverize or powder and are covered with lead-containing surface coating.

.3 Wet cleaning or HEPA vacuuming of significant amounts of lead-containing dust and debris that can be made easily airborne.

.2 Use the procedures described above under *Site Preparation – No Enclosure Required*.

.1 Removal of lead containing paint using power tools with an effective dust collection system equipped with HEPA filter.

.2 Welding, torching or high temperature cutting of lead-containing surface coatings or materials indoors, with use of an effective fume collector or smoke eater.

.3 Welding, torching or high temperature cutting of lead-containing surface coatings materials outdoors.

.3 Provide washing facilities consisting of a wash basin, clean water, soap and towels.

.1 Workers are to use washing facilities each time leaving the Abatement Work Area.

.4 Removal methods minimizing dust generation should be used wherever possible.

.1 Wet methods are to be used to reduce dust generation.

.1 Wetting agents should be used where possible.

.2 Wet method may not be used if it creates a hazard or cause damage to equipment or to project.

.5 Provide drop sheets below all lead operations that may produce dust, chips or debris containing lead.

.6 Wastewater from cleaning or removal operations must be contained, for treatment or disposal.

.7 Remove lead containing paint in small sections and pack as it is being removed in sealable waste containers.

.8 Waste generated should be maintained wet until cleaned and packaged.

.9 After completion of stripping work, wire brush and wet sponge surface from which lead based paint has been removed to remove visible material. During this work keep surfaces wet.

.10 After wire brushing and wet sponging to remove visible lead containing paint, wet clean entire work area, and equipment used in process.

.1 Compressed air or dry sweeping may not be used to clean up lead-containing dust or waste.

.2 Ensure all waste is cleaned and packaged.

.11 Seal filled containers. Clean external surfaces thoroughly by wet sponging. Remove from immediate working area to staging area. Clean external surfaces thoroughly again by wet sponging. Wash containers thoroughly pending removal to outside. Ensure containers are removed by workers who have entered from uncontaminated areas dressed in clean coveralls.

.12 The Abatement Work Area is not to be dismantled until acceptable lead wipe sample results are achieved.

.1 If lead wipe sampling exceeds the clearance criteria the Abatement Work Area will require re-cleaning and re-sampling.

.2 Obtain Abatement Consultant's written permission to proceed.

## 3.5 Final Cleaning

.1 Following specified cleaning procedures, and when lead wipe sampling is below acceptable concentrations proceed with final cleanup.

.2 Remove polyethylene sheet by rolling it away from walls to centre of work area. Clean visible lead containing particles observed during cleanup, immediately, using HEPA vacuum.

.3 Place polyethylene sheets, tape, cleaning material, clothing, and contaminated waste in plastic bags and seal. Dispose of in accordance with waste materials generated.

.4 Clean Work areas and Transfer Room, where present.

.5 Remove sealed waste containers and equipment used in Work and remove from work areas at appropriate time in cleaning sequence.

.6 Conduct final check to ensure no dust or debris remain on surfaces as result of dismantling operations.

**END OF SECTION**

**THIS SPEC ONLY PERTAINS TO SITUATIONS WHERE HEPA ATTACHMENTS ARE USED ON POWERED TOOLS OR WHEN SCRAPING USING NON-POWERED HAND TOOLS. IF HEPA TOOLS ARE NOT USED SEE APPENDIX E FOR ADSDITIONAL TIER 3 PRECAUTIONS TO BE FOLLOWED.**

# APPENDIX E
# Lead Abatement
# Tier 3 Procedures

## 1.0 Measures and Procedures for Type 3 Lead Abatement Operations

### 1.0.1 Preparation of the Work Area

Warning signs should be provided for all Type 3 operations. Signs should be posted in sufficient numbers to warn of the lead hazard, and at least at each entrance of the work area. The signs should display the following information in large, clearly visible letters:

1. There is lead dust, fume or mist hazard.
2. Access to the work area is restricted to authorized persons.
3. Respirators must be worn in the work area.

**Full Enclosures**
Full enclosures are tight enclosures (with tarps that are generally impermeable and fully sealed joints and entryways). Full enclosures allow minimal or no fugitive emissions to reach the outside environment. For full enclosures, the following requirements should be met:

- the enclosure should be made of windproof materials that are impermeable to dust
- the enclosure should be supported by a secure structure
- all joints in the enclosure should be fully sealed
- entrances to the enclosure should be equipped with overlapping tarps or air locks
- the escape of abrasive and debris from the enclosure should be controlled, at air supply points, by the use of baffles, louvers, flap seals and filters
- general mechanical ventilation should be provided to remove contaminated air from the enclosure and filtered air should be provided to replace the exhausted air
- equipment venting such air should be equipped with filters adequate to control vented air to provincial environmental standards
- the air velocity within the enclosure should provide an average minimum cross-draft or down-draft past each worker during abrasive blasting operations as follows:
    - cross-draft velocity of 0.5 m/sec (100 ft/min)
    - down-draft velocity of 0.25 m/sec (50 ft/min)

## 1.0.2 Decontamination Facility

A decontamination facility should be made available for workers carrying out for the following Type 3 operations:

**Type 3a Operations**

- removal of lead-containing coatings and materials using power tools without an effective dust collection system equipped with a HEPA filter
- demolition or clean-up of a facility where lead-containing products were manufactured

The decontamination facility should be located as close as practicable to the work area and should consist of:

- a room suitable for changing into protective clothing and for storing contaminated protective clothing and equipment
- a shower room as described below
- room suitable for changing into street clothes and for storing clean clothing and equipment

The rooms in the decontamination facility should be arranged in sequence and constructed so as to prevent the spread of lead dust.

The shower room in the decontamination facility should be provided with the following:

- hot and cold water or water of a constant temperature that is not less than 40° Celsius or more than 50° Celsius
- individual controls inside the room to regulate water flow and, if there is hot and cold water, temperature
- clean towels.

Prior to each shift in which a decontamination facility is being used, a competent person should inspect the facility to ensure that there are no defects that would allow lead-containing dust to escape. Defects should be repaired before the facility is used. The decontamination facility should be maintained in a clean and sanitary condition.

Workers using the decontamination facility should do the following in the order shown:

- decontaminate protective clothing that will be reused on site by vacuuming with a HEPA-filter-vacuum or by damp wiping
- remove the decontaminated protective clothing

- place protective clothing that will not be reused on site in a container suitable for lead-containing dust and waste
- shower without removing the respirator
- remove and clean the respirator

### 1.0.3 Dust Control Measures

**General and Local Mechanical Ventilation**

Where the work area is enclosed, general mechanical ventilation should be provided. The air exhausted from an enclosed work area should pass through a dust collector effective for capturing the size of particulate matter being generated and for the volume and velocity of air moving through the enclosure.

Where a dust generating operation is carried out, local mechanical ventilation should be provided to remove dust at the source. Local mechanical ventilation is highly recommended for welding, burning, and high temperature cutting of lead-containing coatings and materials, and for the removal of lead-containing coatings and materials using power tools. Where local mechanical ventilation is used, the following should be met:

- Air velocity at any point in front of or at the opening of the ventilation hood should be sufficient to overcome opposing air currents and capture the contaminated air by causing it to flow into the hood.
- Air velocity at the source should be at least 0.5 m/sec (100 ft/min)
- Air discharged from the local mechanical ventilation system should pass through a HEPA filter and be routed out of the workplace in a way that will prevent the return of contaminants to the workplace.

If local ventilation is not practicable, an appropriate respirator should be provided. However, the decision that local ventilation is not practicable should not be made without first consulting the joint health and safety committee or health and safety representative, if any, and without considering the following:

- any undue economic hardship to the employer that providing a local ventilation system would cause
- the frequency and duration of the operation
- any potential risks to the workers by not providing a local ventilation system.

**Wet Methods**

Wet methods should be incorporated in the operation to reduce dust generation. Examples of wet methods include wetting surfaces, wet scraping, and wet shovelling.

Wetting should not be used if it would create a hazard or could cause damage to equipment or to the project. Power tools should be equipped with a shroud, and the shroud should be kept flush with the surface.

### 1.0.4 Personal Protective Equipment

**Protective Clothing**

Every worker who enters a Type 3 operation work area should wear proper protective equipment.

**Respirators**

For most Type 3 operations, workers should wear a respirator with a NIOSH approved assigned protection factor of 50.

It is recommended that compressed air used to supply supplied air respirators meet the breathing air purity requirements of CSA Standard Z180.1-00. Where an oil-lubricated compressor is used to supply breathing air, a continuous carbon monoxide monitor/alarm should be provided.

### 1.0.5 Clean-Up

Dust and waste should be cleaned up and removed by vacuuming with a HEPA filter equipped vacuum, wet sweeping and/or wet shovelling. Clean-up after each operation should be encouraged to prevent lead contamination and exposure to lead.

**END OF APPENDIX E**

# PART 1 - ADDENDUM

## 1.1 TITLE

.1 This Addendum shall be known as:

Addendum 2
TFM-026-26 – L-503-25 Library Cooling Tower Replacement

.2 The Date of the Addendum is Friday, May 15, 2026

## 1.2 PRECEDENCE

.1 This amendment to the bid documents is effective immediately.

.2 This Addendum shall form an integral part of the original bid documents and is to be read in conjunction therewith.

.3 The Addendum shall take precedence over previously issued bid documents with which it may prove to be at variance.

## 1.3 GENERAL

.1 The General Conditions shall govern all phases of the Work covered by this Addendum.

.2 Acknowledge receipt of this addendum in the Tender and Acceptance form.

## 1.4 PURPOSE

.1 The purpose of the Addendum is to inform bidders the tender deadline for receipt of tenders has changed. The new deadline is 3 p.m. NDT on Thursday, May 28, 2026 . The Webex access code remains unchanged.

**END OF ADDENDUM**

PART 1 - ADDENDUM

1.1 TITLE

.1 This Addendum shall be known as:

Addendum 1
TFM-026-26 – L-503-25 Library Cooling Tower Replacement

.2 The Date of the Addendum is Tuesday, May 05, 2026

1.2 PRECEDENCE

.1 This amendment to the bid documents is effective immediately.

.2 This Addendum shall form an integral part of the original bid documents and is to be read in conjunction therewith.

.3 The Addendum shall take precedence over previously issued bid documents with which it may prove to be at variance.

1.3 GENERAL

.1 The General Conditions shall govern all phases of the Work covered by this Addendum.

.2 Acknowledge receipt of this addendum in the Tender and Acceptance form.

1.4 PURPOSE

.1 The purpose of the Addendum is to inform bidders of the changes, deletions and additions to be added to the bid documents.

1.5 CHANGES TO DRAWINGS

.1 None

1.6 CHANGES TO SPECIFICATION

.1 None

1.7 QUESTIONS AND RESPONSES

.1 We unfortunately missed the May 1st Site visit. May we have an additional visit?

**RESPONSE: There will be a second non-mandatory site visit Monday May 11th 2026 @ 12:00pm. We will meet in the Library lobby.**

**END OF ADDENDUM**