



SCOPE OF WORK

F&S PROPERTY MANAGEMENT

Date: Oct 29, 2025

Project number: 26-306-120

Project name: Louis B. Stewart Observatory Revitalization

From: My Linh Elliott

Building History

The Toronto Magnetic and Meteorological Observatory was built in 1853, on a site on the present campus of the University, to replace a small observatory built and operated by the British Admiralty.

When the University expanded around 1900, the observatory was to be torn down but, at the suggestion of surveying instructor Louis Stewart, it was dismantled and moved to a nearby site south of Hart House, where it is now called the Stewart Observatory.

Proposed Project:

The intent of the project is the revitalization of the Louis B. Stewart Building in preparation for the University of Toronto's 200 year anniversary. The initial approach is to prepare a working office space for the Assistant Vice President – Office of the President and Chief of Protocol and her staff. Office to accommodate 6 to 7 staff.

Construction Scope of Work:

Ceiling:

- Remove and dispose of existing light fixture



- Install new drop T-bar ceiling with stocked acoustic tile. Contractor to submit in stock options to client.
- Build out bulkheads to accommodate window heights along the perimeter for the dropped ceiling
- Install new in stock (1x 4) LED fixture at existing electrical junction location
- Lower fire safety detectors to new ceiling height

Network:

- Test existing data cables and certify if they are in working condition

Wall Door and window Finishes:

- Repair, prime, and paint all wall, window frames and door surfaces
- Clean interior of windows and install new window blinds
- Separate price for replacing acoustical panel in meeting room

Floor Finishes:

- Remove exiting carpet and ensure subfloor is in good condition
- Provide itemized pricing for:
 1. Install walk of matt tiles similar to Interface Step Repeat in Kitchenette (102) and entrance (101)
 2. Install in stock porcelain tiles in kitchenette (102) and entrance (101).
 3. Install new carpet throughout space over existing VCT tiles and subfloor in the offices using quick ship carpet.
 4. Remove existing VCT and install new LVT in 105, 106, 107, 108, 109 and 110

Refer to Construction feasibility plans – Appendix 1 and 2

Millwork:

- Reinstate door in room 102
- Replace door 109 to accommodate AODA requirements
- Provide itemized pricing for:
 1. Replace kitchenette millwork



Security:

- Provide electrical connection for the following security elements:
 1. Camera at exterior front entrance
 2. Campus safety access control Honey Well fob system at front entrance
 3. Campus safety contact / alarm points at 2 exterior doors (side entrance and basement)
 4. Panic button with camera in a designated location in the office
 5. Motion sensor for main and basement level
 6. Add 3M anti-shatter window film to ground level accessible windows

A/C Unit commissioning:

- Provide itemized pricing for:
 1. Commissioning of stand-alone AC units to ensure they are in working condition
 2. Change filters after construction

Furniture: By Others (Reference only)

- Office space for 6/7 staff
- Lounge Space
- Meeting room facilities
- Kitchenette tables
- Lockers
- Reception area
- Storage / Printer area/ layout table

Refer to Furniture feasibility plan- Appendix 3

Building Condition:

The building is in need of repair. A number of assessments have been completed to identify its current condition.



Molde Assessment:

Background/Observation

- On Tuesday, October 7, 2025 EHS was contacted by My Linh Elliot (F&S Property Management) to conduct a review of Louis B. Stewart Observatory for potential mould growth.
- The University of Toronto Student Activity Council was a tenant of Louis B. Stewart Observatory until approximately the beginning of COVID. EllisDon was then a tenant onwards and vacated the space for EcoSystem Energy a few months ago.
- The construction of the building varies floor-by-floor however, in general consists of brick/wood/non-ACM plaster/ACM Firestop walls, wood/non-ACM plaster/ceiling tiles, concrete/carpet/wood/ACM vinyl floor tiles.
- Upon entering the building, an old/musty odour was observed throughout the building with the odour being more noticeable in the basement. The basement washroom has a storage closet storing items which may contribute to the old/musty odour.
- Efflorescence was observed around the perimeter of the basement walls. Water-stained ceiling tile and stained carpet was observed however, noted to be dry. F&S Property Manager confirmed that they have not received any reports of leaks since taking over the building approximately one year ago.

Recommendation

- Based on the visual/non-intrusive assessment, no mould remediation is required as no mould growth was observed in the building. However, efflorescence and water staining were observed around the perimeter of the basement which indicates past water intrusion. Please continue to investigate and repair the source of the water leak to prevent further water damage after repairs are made.
- To reduce the odour, consider removing/disposing of unwanted stored items, increasing ventilation by opening windows (please remind occupants to close the windows at the end of the day to prevent weather-related issues/damage to building infrastructure/etc.).
- As a general reminder if/when disturbing building materials, ensure to also check for any asbestos/designated substances and follow any relevant and applicable designated substances procedures where needed; the more protective precautions would apply. All



mould and/or designated substances remediation work is to be performed by trained workers.

Refer to Appendix 4.

Asbestos Assessment:

1. Majority of the rooms have vinyl flooring consisting of both asbestos and non-asbestos materials. Few tiles in sporadic rooms are broken.
2. Peeling/flaking paint observed only on windows. Wall paint is intact and not peeling.
3. Lay-in ceiling exists only in washroom. Other ceilings are plaster (non-acm) probably attached directly to the joists.
4. All pipe insulation in basement is new (post 2016 project). Asbestos pipe insulation (in good condition) observed only in a couple of rooms.
5. No rooms observed with historic or active mould infiltration. There is a distinct musty/stale smell in the basement. Probably due to lack of air circulation.

Pest Assessment:

The following is a report on the findings of and treatments for rodents in the Hart house observatory.

Upon inspection of the site, I found mice activity on the second and third floor of the building. An old carcass of a dead mouse from the basement was removed. An inspected the whole site from the basement to the third floor was completed.

The basement did not show any signs of activity of rodents.

The first floor did not show any signs of rodents, but it showed previous activity of ants.

I cleaned out the bait station and re-baited it with Resolve soft bait. Pcp number 31322 -24 grams

There were signs of wasps in one of the offices, the windows were sealed and the nest was removed.

The second floor potentially had high activity of rodents.

Rebaited the bait stations with Resolve pcp number 31322 -6 pieces



The third floor had potentially high levels of mice activity. Just like on the second floor, all bait stations were empty.

Rebaited with Resolve soft bait, pcp number 31322 - 6 pieces.

We'll continue monitoring and collecting more information next month.

HVAC Assessment:

All stand-alone AC wall units have been serviced and in working order. The building is heated by radiator system and building engineers will provide report on the heating system.

Network and Work and Wifi Assessment:

There are no network and wifi connectivity in the building currently.



DESIGNATED SUBSTANCES IN BUILDING MATERIALS REPORT SUMMARY

Project: Louis B. Stewart Observatory Revitalization Project Reference 26-306-120	Date: October 29, 2025
Building: Louis B. Stewart Observatory (SAC) (Building #120)	Location: 1 st floor in specific and other areas of the building in general

Ontario Regulation 490/09 - Designated Substances (O. Reg. 490/09), made under the Occupational Health and Safety Act, outlines required steps to control exposure of workers to designated substances. Under O. Reg. 490/09, there are eleven (11) designated substances: acrylonitrile, arsenic, asbestos, benzene, coke oven emissions, ethylene oxide, isocyanates, lead, mercury, silica and vinyl chloride. This regulation applies to every employer and worker at a workplace where the designated substances are present, produced, processed, used, handled or stored and at which a worker is likely to be exposed to the designated substance. This assessment, issued for the current project, satisfies the Owner's requirements under Section 30 of the Ontario Occupational Health and Safety Act (OHSA), Revised Statutes of Ontario 1990, as amended.

ASBESTOS-CONTAINING BUILDING MATERIALS (ACM): For room numbers, please refer to the 1st floor plan attached. The status of building materials with respect to asbestos within the 1st floor (current project locations) and other areas of the Louis B. Stewart Observatory (SAC) is given below:

Material	Location
Floor adhesive mastic	Non-friable asbestos-containing (Chrysotile) adhesive mastic is present on the existing subfloor in Room 101 and 111. Based on laboratory analytical results, adhesive mastics present under carpet or vinyl flooring in remaining areas of the 1 st floor do not contain asbestos. Non-friable asbestos-containing (Chrysotile) adhesive mastic is suspected to be present under both asbestos-containing and non-asbestos flooring (carpet, vinyl sheet, wood and non-asbestos floor tiles, etc.) in remaining areas of the building.
Vinyl flooring and mastic	Based on laboratory analytical results and recent abatement, vinyl flooring present on the 1 st floor does not contain asbestos. Non-friable asbestos-containing (Chrysotile) vinyl flooring is present in the basement of the building. In addition, asbestos-containing vinyl flooring is suspected to be present under non-asbestos flooring (carpet, vinyl sheet, wood and non-asbestos floor tiles, etc.).
Flooring paper	Friable asbestos-containing (Chrysotile) paper is suspected to be present under the sub-floors of 1 st floor and other areas of this building.
Friable asbestos-containing (Chrysotile) piping systems, mechanical equipment and duct insulation	No asbestos-containing insulation is present in accessible locations of the 1 st floor. Friable asbestos-containing (Chrysotile) piping system insulation is present on the 2 nd floor of this building. Friable asbestos-containing is suspected to present inside currently inaccessible and hidden wall/ceiling penetrations and cavities.



Material	Location
Other materials	Friable asbestos-containing (Chrysotile) firestop materials at pipe penetrations within the 1 st floor and other areas of the building. Asbestos-containing materials for which either the sampling records are not available or that are currently hidden or are inaccessible may be present within the 1 st floor and other areas of the building. These materials include roofing materials, window/door caulking, window glazing putty, fire rated door liners, transite drainpipes, gaskets in piping systems, gaskets/internal liners in mechanical and electrical equipment, electrical wiring jacket, electrical panel backing and transite in HV cable trench.

LEAD: All paint finishes on walls, structural components, windows, doors, bulkheads, baseboards, floors, ceilings, piping systems, ductwork, mechanical equipment and all other surfaces within the current project locations and other areas of the building should be assumed to contain lead ($\geq 0.1\%$ or $1000 \mu\text{g/g}$ or 1000PPM Lead Content).

There is no regulatory limit currently in Ontario that determines what amount of lead in paint constitutes the paint to be considered “lead based paint”. The Environmental Abatement Council of Canada (EACC) – Lead Guideline For Construction, Renovation, Maintenance or Repair (2014) recommends that a content of 0.1% (i.e. $1000 \mu\text{g/g}$ or 1000mg/kg or 1000ppm lead) is considered a “de minimis” or “virtually safe” level of lead in paint or surface coatings, provided that aggressive disturbance or heating does not occur.

The above lead-based paint standards are the generally accepted threshold for defining a “lead-based paint”. These levels are used as action levels where special precautions are typically implemented to contain debris created during construction or renovation activities and to protect workers from exposure during these activities.

Work listed below involving lead paint (any concentration) is included in the General Contractor’s scope of work.

- Work involving sanding, drilling into, grinding or any other disturbance or removal of lead-based materials or surfaces applied with lead paint (any concentration).

The classification, general measures and procedures (or Type of operations) required for removal or disturbance of lead paint, lead painted materials and lead based materials shall depend on the type of work to be conducted, the procedures adopted and the limit of lead in paint accepted by the General Contractor and their sub-contractors.

For removal or disturbance of lead paint, lead painted materials and lead based materials, the General Contractor and their sub-contractors work procedures and training requirements as identified in Ontario Ministry of Labour, Immigration, Training and Skills Development Guidelines for Lead on Construction Projects, available at <https://www.labour.gov.on.ca/english/hs/pubs/lead/> and the University of Toronto Standard Operating Procedures for the Control of Lead During Building Maintenance and Construction Activities, available at <https://ehs.utoronto.ca/resources/policies-and-procedures/>. In case of conflict the more stringent procedures shall apply.

Lead-containing wastes should be recycled if practicable or handled and disposed of according to Ontario Regulation.



Lead is also prudently presumed to be present as a component in solder on joints between copper pipe and fittings, solder on the wire connections of electrical components, glazing on ceramic tiles and metal coverings on older high voltage wires.

MERCURY: Mercury may be present as liquid in the electro-thermal switching devices and vapours in the fluorescent light tubes and incandescent mercury bulbs

SILICA: Crystalline silica is the primary component of many building materials such as concrete, concrete block, cement, mortar, drywall, etc. Exposure to airborne silica can occur when these building materials are disturbed or turned into powder. For any work involving disturbance or removal of silica-containing materials, the General Contractor and their sub-contractors shall follow procedures identified in the Ontario Ministry of Labour Guideline “Silica on Construction Projects” available at <https://www.labour.gov.on.ca/english/hs/pubs/silica/> and the University of Toronto “Crystalline Silica Procedures” available at <https://ehs.utoronto.ca/resources/policies-and-procedures/>. In case of conflict, the more stringent procedures shall apply.

OTHER DESIGNATED SUBSTANCES – Acrylonitrile, Arsenic, Benzene, Coke Oven Emissions, Ethylene Oxide, Isocyanates and Vinyl Chloride: The building has not been used for any process or manufacturing and no above ground or underground fuel storage tanks are present within the building; therefore, none of the other Designated Substances listed above are suspected to be present.

**RECOMMENDATIONS & DESIGNATED SUBSTANCES RESPONSIBILITIES/
REMOVAL/PROCEDURES:**

1. If any conditions become apparent that differ significantly from findings as presented in this report, please notify the Project Manager immediately.
2. Any worker who may inadvertently come into contact with any asbestos-containing materials in the course of their work for the current project must have at a minimum Asbestos Awareness Training as outlined in the University of Toronto, Asbestos Management Program, available at <https://ehs.utoronto.ca/resources/policies-and-procedures/>.
3. Workers performing any asbestos work will require appropriate training, including respirator fit testing, as identified in Ontario Regulation 278/05 and the University of Toronto Asbestos Management Program, available at <https://ehs.utoronto.ca/resources/policies-and-procedures/>. In case of conflict, the more stringent procedures shall apply.
4. In the event Contractor observes any other suspect asbestos-containing materials that require removal as part of the project, the University of Toronto Project Manager shall be contacted for arranging further investigation and abatement under a separate contract.
5. The Contractor shall exercise caution when removing any flooring material. In the event a flooring paper is discovered, the work shall be immediately stopped the University of Toronto Project Manager shall be contacted for arranging further investigation and abatement.
6. In the event the General Contractor or their sub-contractors observe any damaged asbestos-containing materials within their work area, the work shall be immediately stopped the University of Toronto Project Manager shall be contacted for arranging further investigation and abatement.
7. It is our understanding that the current scope of work does not require removal of any asbestos-containing material. In the event the scope changes and requires removal of asbestos-containing materials, the University of Toronto Project Manager shall be contacted for arranging further investigation and abatement under a separate contract.



8. Drilling into or removing screws/bolts from lead-containing and silica-containing finishes, and removal or disturbance of lead-containing and silica-containing finishes is included in the General Contractor's scope of work. Follow procedures and training requirements as described in preceding sections.
9. Quality control inspections for designated substances disturbance/removal will be performed by a designated external consultant and the University of Toronto staff throughout the project. Any contamination of surrounding areas indicated by visual inspection or air monitoring will require complete clean-up of the affected areas by the General Contractor, without any extra cost to the University of Toronto.

This report is applicable only for the Louis B. Stewart Observatory Revitalization Project at the Louis B. Stewart Observatory (SAC) (Building #120)

Irfan Miraj
Manager Hazardous Construction Materials
Group
Facilities & Services
University of Toronto
Mobile: 416-791-8880
irfan.miraj@utoronto.ca

This is to acknowledge that, We undertake to adhere to the University's Asbestos Management Program, including Appendix D (Emergency Procedures in the Event of Unexpected Asbestos Release) available at: <https://ehs.utoronto.ca/wp-content/uploads/2018/03/AsbestosManagementProgram20190409.pdf> and follow the University's asbestos abatement guidelines as outlined in the specification. Also acknowledge that, I have received this report and read all the University of Toronto Designated Substance Management Programs/Procedures and ensure that each of my prospective contractor and subcontractor for the project has received a copy of these documents. We undertake to adhere to the University's Programs/Procedures for Designated Substances. We also undertake to immediately stop work and inform the Project Manager if during the course of work any designated substances are discovered that were not referred to in the project document.

Contractor's Signature and Name: