

Asbestos Reassessment Survey - City Hall - 500 George Street North, Peterborough, Ontario



2022-12-23

City of Peterborough

Cambium Reference: 15754-001

CAMBIUM INC.

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Executive Summary

Cambium Inc. (Cambium) was retained by the City of Peterborough (Client) to complete an Asbestos Reassessment Survey (survey) of the City Hall building located at 500 George Street North, Peterborough, Ontario.

The building was reportedly constructed in 1950 and consists of a basement, Level 1, Level 2, and Penthouse.

The survey was performed by Erin Agbay of Cambium on October 25, 2022.

This survey fulfills the requirements of Ontario Regulation 278/05 “*Asbestos on Construction Projects and in Buildings and Repair Operations*” made under the Occupational Health and Safety Act.

Prior to commencing the survey, Cambium reviewed and made reference to the following reports entitled:

- “Asbestos Reassessments Survey – City Hall – 500 George Street North, Peterborough, Ontario”, completed by Cambium, dated December 23, 2021.

Key Findings

Asbestos-containing materials were confirmed to be present in the building as follows:

- Asbestos-containing pipe insulation (parging cement, preformed block, and sweatwrap), previously determined to contain chrysotile and amosite asbestos, is present in various locations throughout the building.
- Asbestos-containing vinyl floor tiles, previously determined to contain chrysotile asbestos, are present in the Level 2 vault.
- Mastic, previously determined to contain chrysotile asbestos, is present beneath carpet floor finish in office 33 located in the basement.

Refer to Section 3.0 for detailed findings.



Recommendations

- Prior to maintenance/renovation activities, asbestos-containing materials that have the potential to be disturbed must be removed in accordance with the appropriate removal procedures as outlined in O. Reg. 278/05 and disposed of as asbestos waste under O. Reg. 347.
- Repair asbestos parging cement fitting in fair condition following Type 1 procedures as outlined by O. Reg. 278/05.
- Repair asbestos pipe wrap in fair condition following Type 1 procedures as outlined by O. Reg. 278/05.
- The asbestos-management program should be updated to reflect the findings of this assessment. If an asbestos management program is not in place, one must be created and implemented as per O. Reg. 278/05.
- All identified ACMs should be inspected routinely to ensure that all materials remain in good condition and are properly managed. The asbestos inventory should be updated at a minimum once every 12 months or when changes in the quantity or condition of the materials occur.

Refer to section 4.0 for more detailed recommendations. Complete commentary on each of the materials suspected to be asbestos-containing in the building can be found in the body of this report. The executive summary is not intended to substitute for the complete report, nor does it discuss some of the specific issues documented in the report.



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1.0 Introduction

Cambium Inc. (Cambium) was retained by the City of Peterborough (Client) to complete an Asbestos Reassessment Survey (survey) of the City Hall building located at 500 George Street North, Peterborough, Ontario.

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2.0 Methodology

2.1 Visual Inspection

The visual assessment included the identification of known asbestos-containing building materials within the building. In addition, the condition, quantity, and friability of the materials were noted.

Asbestos-containing materials (ACMs) were evaluated based on their condition in order to make remedial recommendations. In general, an ACM is considered to be in good condition if it shows no signs of damage or deterioration, fair if it shows signs of minor damage and poor condition if it shows significant damage.

Pipe Insulation Condition Definition

- **Good** : Insulation is completely covered in jacketing and exhibits no evidence of damage or deterioration. No insulation exposed.
- **Fair** : Minor Penetrating damage to jacketed insulation (cuts, tears, nicks, deterioration or delamination) or undamaged insulation that has never been jacketed. The extent of missing insulation ranges from minor to none.
- **Poor** : Original insulation jacket is missing, damaged, deteriorated or delaminated. Insulation is exposed and significant areas have been dislodged. Damage cannot be readily repaired.

2.2 Survey Limitations

Non-destructive investigations were conducted where ACMs were suspected of being present.

Limited access was provided above the rigid ceiling level in storage room 153 located in the second level of the east wing.

The survey was limited to areas where ACMs were previously identified. Cambium inspected additional areas where ACMs are historically known to be present, however, it is possible ACMs are present in other areas of the building.



When conducting an asbestos survey, it is standard practice to assume that certain building materials potentially contain asbestos. Depending on the material, this assumption is generally undertaken because the material is inaccessible (i.e., underground piping) or there is an inherent danger in sampling the material (i.e., high voltage wires).

Therefore, for the purpose of this survey, Cambium has assumed that the following materials, if present, are asbestos-containing:

- High voltage wiring
- Underground services or piping
- Roofing materials
- Boiler refractory material
- Caulking & adhesives
- Fire door
- Floor levelling compound
- Duct mastic
- Mechanical packing/ropes/gaskets
- Vermiculite
- Elevator and lift brakes.

The above noted building materials should be sampled in accordance with the requirements presented in O. Reg. 278/05 prior to maintenance/renovation activities.



3.0 Results and Findings

Below is a brief summary of ACMs identified during the survey. Photographs of ACMs are included in Appendix A. Drawings with the locations of ACMs materials are present in Figure 1 to Figure 5.

3.1 Thermal Mechanical Insulation (Friable)

3.1.1 Pipe Insulation

The following table summarizes the location, condition, and quantity of damaged asbestos-containing thermal systems insulation:

Thermal Systems Insulation Locations

Phase of Construction	Location	Insulation Type	Type of Asbestos and Percent (%)	Total Quantity	Quantity & Condition
				Linear Feet (LF) Fitting (FTG)	
1950	Basement – office 011	Preformed block	0.5-5% Chrysotile 10-25% Amosite	1 LF	1 LF good
1950	Basement – electrical room 013	Preformed block	0.5-5% Chrysotile 10-25% Amosite	1 LF	1 LF good
		Parging cement fitting	> 75% Chrysotile	1 FTG	1 FTG good
1950	Basement – server room	Sweatwrap (non-friable)	25-50% Chrysotile	12 LF	11 LF good * 1 LF fair
1950	Basement – storage room 017	Preformed block	0.5-5% Chrysotile 10-25% Amosite	6 LF	6 LF good
		Sweatwrap (non-friable)	25-50% Chrysotile	2 LF	2 LF good



Phase of Construction	Location	Insulation Type	Type of Asbestos and Percent (%)	Total Quantity	Quantity & Condition
				Linear Feet (LF) Fitting (FTG)	
1950	Basement – room 019	Preformed block	0.5-5% Chrysotile 10-25% Amosite	75 LF	75 LF good
		Parging cement fitting	> 75% Chrysotile	25 FTG	24 FTG good 1 FTG fair
		Sweatwrap (non-friable)	25-50% Chrysotile	45 LF	45 LF good
1950	Basement – office 023	Preformed block	0.5-5% Chrysotile 10-25% Amosite	1 LF	1 LF good
1950	Basement - east wing pipe chase	Preformed block	0.5-5% Chrysotile 10-25% Amosite	2 LF	2 LF good
		Sweatwrap (non-friable)	25-50% Chrysotile	2 LF	2 LF good
1950	Level 1 – east wing storage room 153	Preformed block	0.5-5% Chrysotile 10-25% Amosite	10 LF	10 LF good
		Parging cement fitting	> 75% Chrysotile	1 FTG	1 FTG good
		Sweatwrap (non-friable)	25-50% Chrysotile	10 LF	10 LF good
1950	Level 2 – east wing pipe chase (adjacent kitchenette)	Sweatwrap (non-friable)	25-50% Chrysotile	1 LF	** 1 LF fair
		Pipe wrap (Non-Friable)	Presumed ACM	1 LF	1 LF fair

* Unjacketed sweatwrap insulation in fair condition located in the basement server room is inaccessible due to server equipment.



** Unjacketed sweatwrap insulation and presumed pipe wrap in fair condition located in the Level 2 pipe chase is inaccessible.

Additional pipe systems are presumed to be present throughout the building in concealed areas such as above rigid ceilings, within wall cavities in pipe chases, in column enclosures and within shafts. Insulating materials on piping systems in concealed areas may differ from those identified above.

Remaining pipes were observed to be either uninsulated or insulated with non-asbestos fibreglass.

3.1.2 Duct Systems

Duct systems throughout the building were either uninsulated or insulated with non-asbestos fibreglass.

3.1.3 Mechanical Equipment Insulation

Mechanical equipment throughout the building was observed to be either uninsulated or insulated with non-asbestos fibreglass.

3.2 Plaster (Friable)

Plaster was previously determined to be non-asbestos.

3.3 Texture Finish (Friable)

Texture finishes, previously reported by OHE as *Texture Coat Material*, were previously determined to be asbestos-containing and reportedly removed as part of an abatement project conducted in January 2013.

Non-asbestos texture finish is present as a ceiling finish in offices located in the south wing of Level 2.

3.4 Drywall Joint Compound (Non-Friable)

Drywall joint compound was previously determined to be non-asbestos.



3.5 Ceiling Tiles (Non-Friable)

Ceiling tiles were previously determined to be non-asbestos.

3.6 Vinyl Sheet Flooring (Non-Friable)

Vinyl sheet flooring was previously determined to be non-asbestos.

3.7 Vinyl Floor Tiles (Non-Friable)

Asbestos-containing vinyl floor tiles (beige with brown streaks), previously determined to contain 0.5-5% chrysotile asbestos, are present in the Level 2 vault. There is approximately 100 ft² present and was observed to be in good condition.

Non-asbestos 12" x 12" vinyl floor tiles (cream and brown streaks) are present in the basement.

3.8 Roofing Tar and Felts (Non-Friable)

Roofing tar and felts were previously determined to be non-asbestos.

3.9 Black Tar (Non-Friable)

Black tar present in the ground floor of the south wing was previously determined to be non-asbestos.

3.10 Firestopping (Non-Friable)

Firestopping was previously determined to be non-asbestos.

3.11 Cementitious Material (Non-Friable)

Cementitious material was previous determined to be non-asbestos.



3.12 Mastic (Non-Friable)

Cream / black coloured mastic, previously determined to contain 3% chrysotile asbestos, is present beneath carpet floor finish in office 33 located in the basement. There is approximately 250 ft² present and was observed to be in good condition.

The following mastic colours were previously determined to be non-asbestos:

- Black
- Silver
- Grey duct mastic
- Red (beneath carpet)
- Yellow (beneath carpet)
- Brown (behind baseboard and above ceiling tiles)

3.13 Caulking (Non-Friable)

The following caulking colours were previously determined to be non-asbestos:

- Red
- Grey
- White
- Black
- Brown
- Dark grey

3.14 Suspect Building Materials Not Identified

The following types of building materials which historically have been known to contain asbestos were not identified during the assessment:

- Sprayed fireproofing



- Vermiculite
- Asbestos cement products



4.0 Recommendations

Based on our findings, the following recommendations were made.

- Prior to maintenance/renovation activities, ACMs that have the potential to be disturbed must be removed in accordance with the appropriate removal procedures as outlined in O. Reg. 278/05 and disposed of as asbestos waste under O. Reg. 347.
- Repair asbestos parging cement fitting in fair condition following Type 1 procedures as outlined by O. Reg. 278/05.
- Repair asbestos pipe wrap in fair condition following Type 1 procedures as outlined by O. Reg. 278/05.
- Workers working with or in close proximity to ACMs must be informed of its presence.
- The asbestos-management program should be updated to reflect the findings of this assessment. If an asbestos management program is not in place, one must be created and implemented as per O. Reg. 278/05.
- All identified ACMs should be inspected routinely to ensure that all materials remain in good condition and are properly managed. The asbestos inventory should be updated at a minimum once every 12 months or when changes in the quantity or condition of the materials occur.



5.0 Limitations

The information provided in this report with respect to the asbestos reassessment survey is limited to the specific scope of work and is solely for the exclusive use of the City of Peterborough. Cambium is not responsible for the use of this report by any third party. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties.

The field observations and analysis are considered sufficient in detail and scope to form a reasonable basis for the findings presented in this report. Cambium warrants that the findings and conclusions contained herein have been made in accordance with generally accepted industry evaluation methods and applicable regulations at the time of the performance of the asbestos reassessment survey. However, due to the nature of building construction, it is possible that conditions may exist which could not be reasonably identified within the scope of the investigation or which were not evident during the survey.

Cambium believes that the information collected during the survey is reliable but reserves the right to review and comment on any interpretation of the data or conclusions derived from this report by the City of Peterborough.



6.0 Closing

Cambium trusts that the above meets the requirements of the City of Peterborough. If you have questions or comments regarding the details within this report, please do not hesitate to contact the undersigned at (705) 742-7900.

Respectfully submitted,

Cambium Inc.

Erin Agbay, BASc.
Technician/EIT




Chris Moose
Senior Project Manager

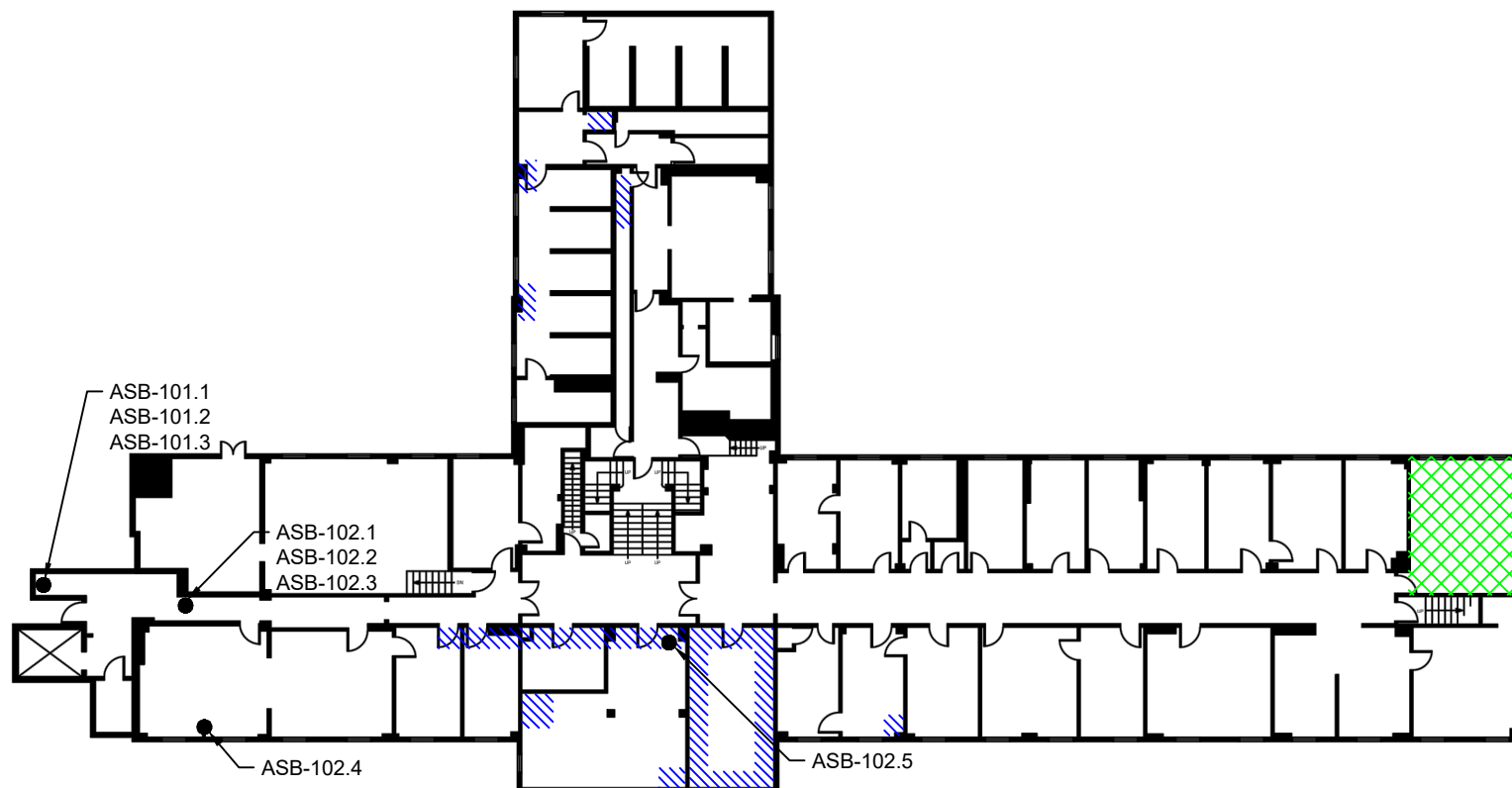


Appended Figures

**ASBESTOS REASSESSMENT
CITY HALL
CITY OF PETERBOROUGH
500 George Street North,
Peterborough, Ontario**

LEGEND

- Asbestos Sample Location
- Asbestos-Containing Materials:**
 -  Vinyl Floor Tiles
 -  Pipe Insulation
 -  Mastic



- Notes:
1. Base drawing obtained from OHE Consultants, Project No: 24953-002. Drawing No: 1.1



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BASEMENT

Project No.:	15754-001	Date:	December 2022
Horizontal Scale:	N.T.S.	Rev.:	
Vertical Scale:		Figure:	1
Drawn By:	MAT	Checked By:	CM

ASBESTOS REASSESSMENT
CITY HALL
CITY OF PETERBOROUGH
500 George Street North,
Peterborough, Ontario

LEGEND

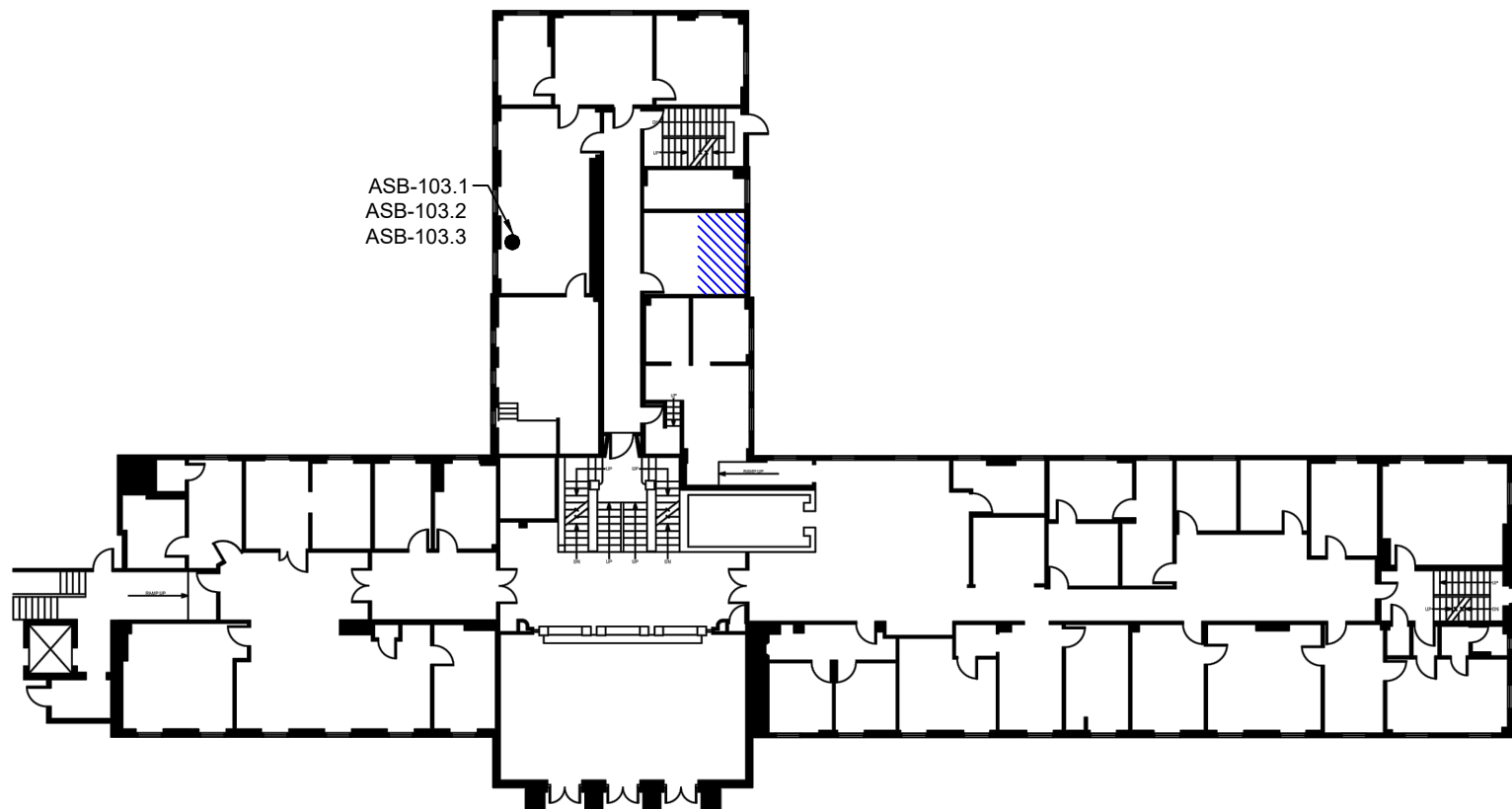
● Asbestos Sample Location

Asbestos-Containing Materials:

 Vinyl Floor Tiles

 Pipe Insulation

 Mastic



Notes:

1. Base drawing obtained from OHE Consultants, Project No: 24953-002. Drawing No: 1.2



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LEVEL 1

Project No.:	15754-001	Date:	December 2022
Horizontal Scale:	N.T.S.	Vertical Scale:	N/A
Drawn By:	MAT	Checked By:	CM
Figure:	2		

**ASBESTOS REASSESSMENT
CITY HALL
CITY OF PETERBOROUGH
500 George Street North,
Peterborough, Ontario**

LEGEND

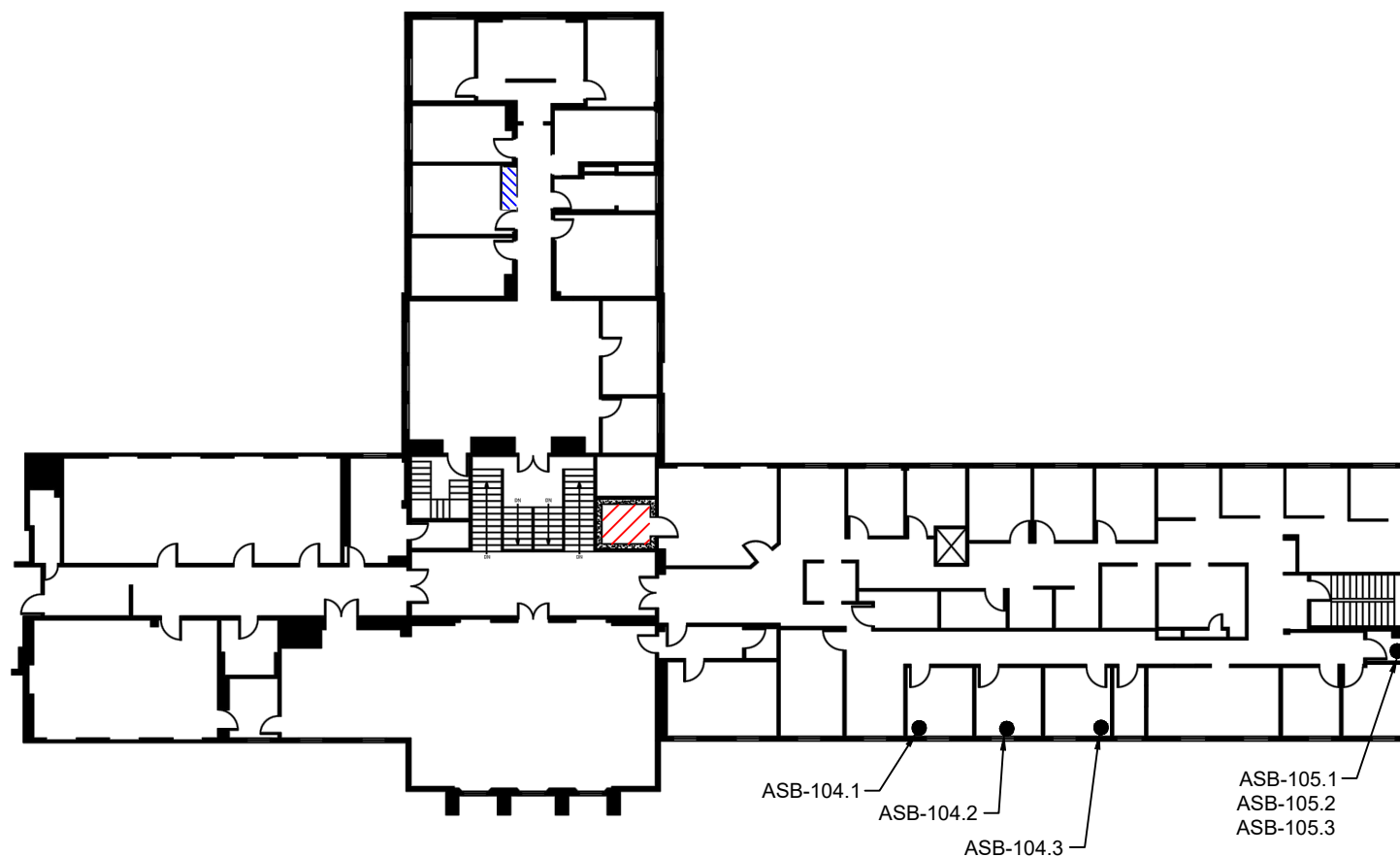
● Asbestos Sample Location

Asbestos-Containing Materials:

 Vinyl Floor Tiles

 Pipe Insulation

 Mastic



Notes:

1. Base drawing obtained from OHE Consultants, Project No: 24953-002. Drawing No: 1.3
2. Asbestos-containing pipe insulation is present in the pipe chase and is inaccessible.






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LEVEL 2

Project No.: 15754-001	Date: December 2022
Horizontal Scale: N.T.S.	Rev.: N/A
Vertical Scale: N.T.S.	Figure: 3
Drawn By: MAT	Checked By: CM

ASBESTOS REASSESSMENT
CITY HALL
CITY OF PETERBOROUGH
500 George Street North,
Peterborough, Ontario

LEGEND

- Asbestos Sample Location
- Asbestos-Containing Materials:**
 -  Vinyl Floor Tiles
 -  Pipe Insulation
 -  Mastic

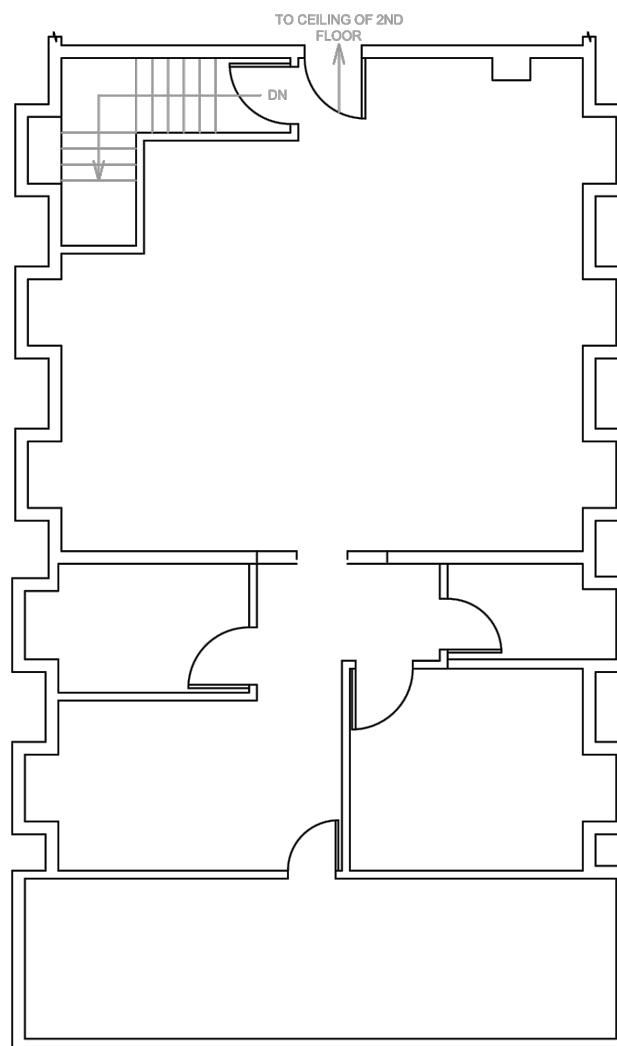
- Notes:
- Base drawing obtained from OHE Consultants, Project No: 24953-002. Drawing No: 1.4



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PENTHOUSE

Project No.:	15754-001	Date:	December 2022
Horizontal Scale:	N.T.S.	Rev.:	
Vertical Scale:		Figure:	4
Drawn By:	MAT	Checked By:	CM



ASBESTOS REASSESSMENT
CITY HALL
CITY OF PETERBOROUGH
500 George Street North,
Peterborough, Ontario

LEGEND

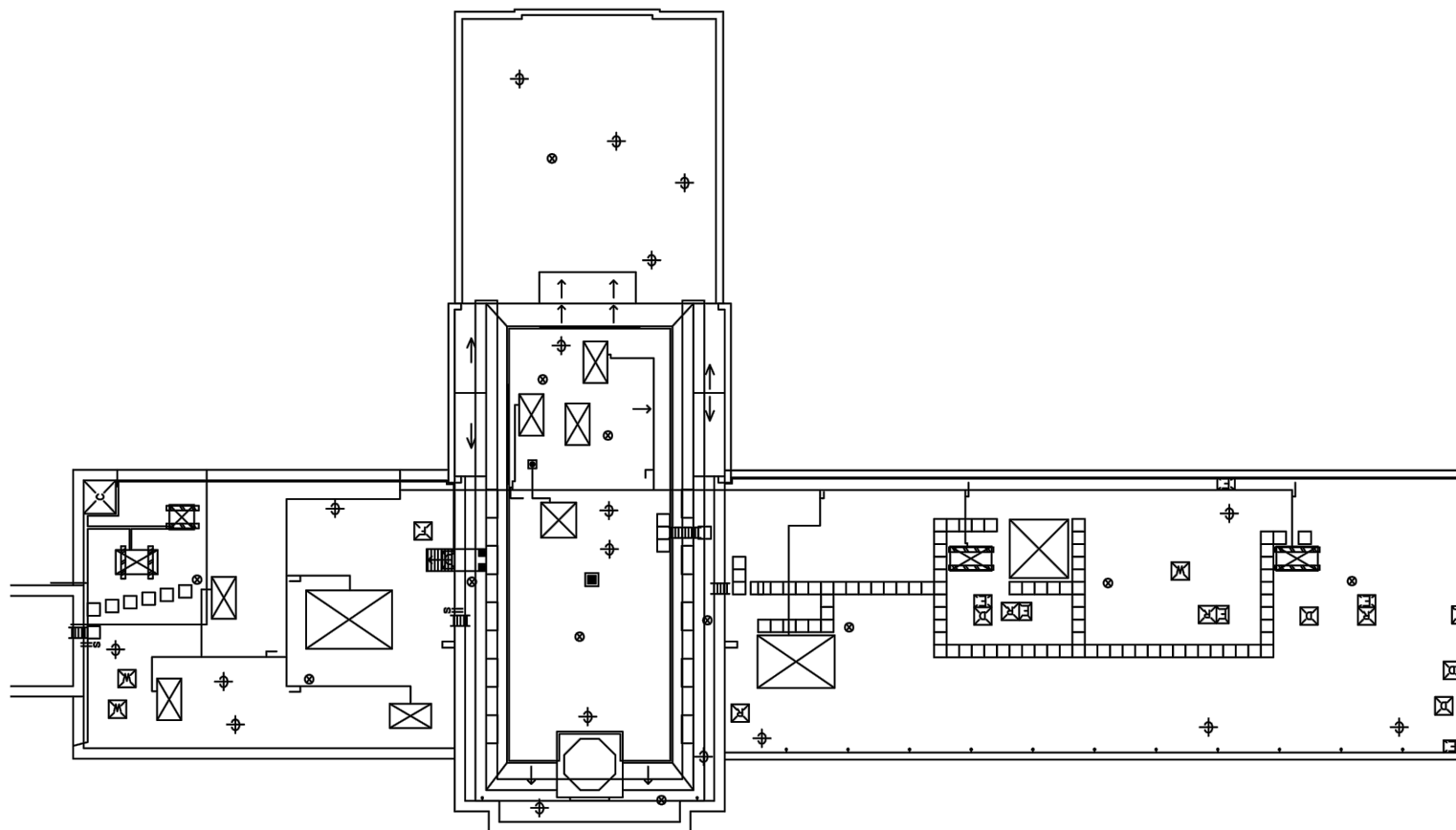
● Asbestos Sample Location

Asbestos-Containing Materials:

 Vinyl Floor Tiles

 Pipe Insulation

 Mastic



Notes:

1. Base drawing obtained from OHE Consultants, Project No: 24953-002. Drawing No: 1.5



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ROOF

Project No.:	Date:
15754-001	December 2022
Horizontal Scale:	Rev.:
N.T.S.	
Vertical Scale:	N/A
Drawn By:	Checked By:
MAT	CM
Figure:	5



Appendix A

Photographs



Photo 1 – Asbestos-containing preformed block (orange arrow) and parging cement (blue arrow) pipe insulation present in the the electrical room in the basement of the building.



Photo 2 – Asbestos-containing parging cement fitting in fair condition in the basement of the building.

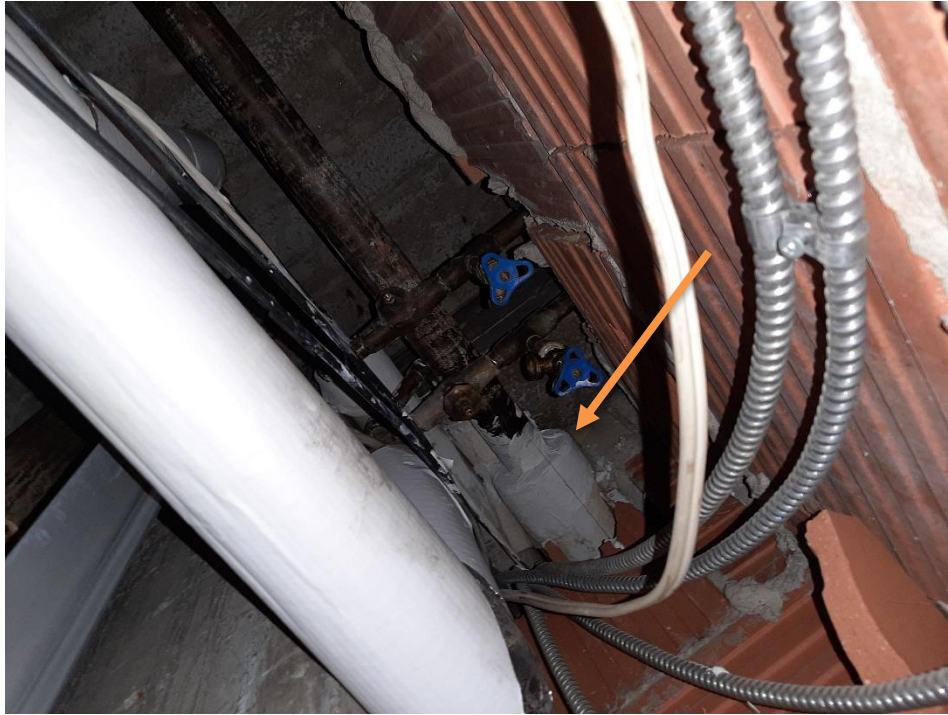


Photo 3 – Asbestos-containing sweatwrap in east wing pipe chase in the basement of the building.

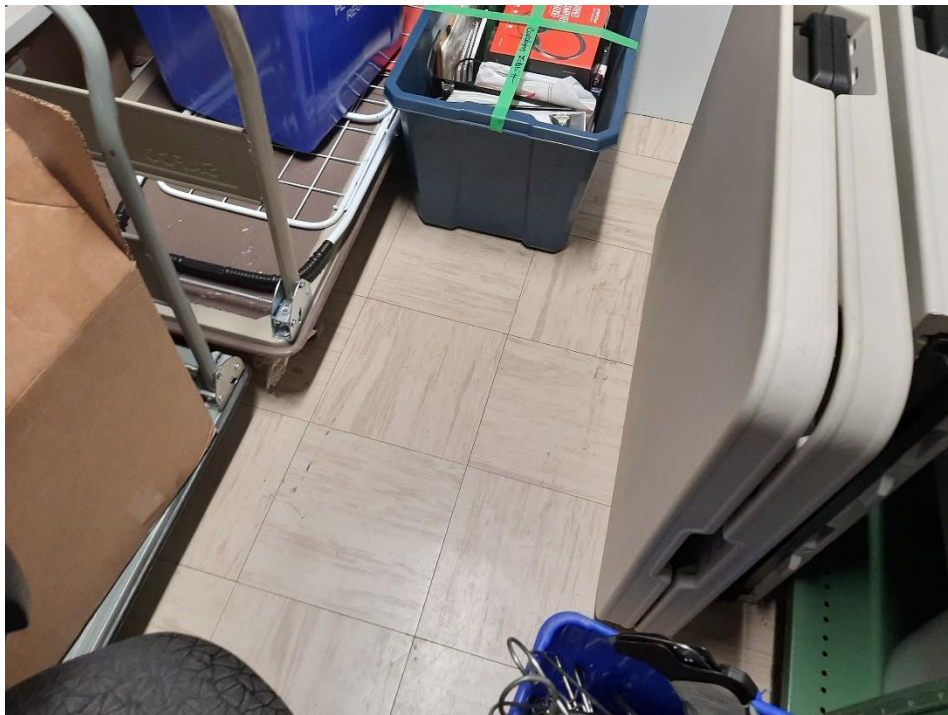


Photo 4 – Asbestos-containing vinyl floor tiles present in the Level 2 vault.



Photo 5 – Asbestos-containing mastic present under the carpet in office 33 located in the basement of the building.