

Asbestos Building Materials Assessment

Multi-Residential Building
80 Water Street
Brockville ON



Prepared for:
United Counties of Leeds & Grenville
100-25 Central Avenue West
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Executive Summary

Stantec Consulting Ltd. (Stantec) was commissioned by the United Counties of Leeds & Grenville (Leeds Grenville) to conduct an Asbestos Building Materials Assessment of the multi-residential building (subject building), located at 80 Water Street in Brockville, Ontario.

The purpose of the assessment was to assist the Leeds Grenville to meet the requirements of *Ontario Regulation 278/05 Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations*, as amended (O. Reg. 278/05), made under the *Occupational Health and Safety Act* (OHSA). The assessment includes the identification of building materials suspected to be asbestos-containing materials (ACMs) that may require special attention during the operation of the building.

The assessment is intended for the long term management of asbestos-containing building materials to be included as part of an overall Asbestos Management Program (AMP) and not for construction or renovation purposes. The conclusions presented herein represent the findings for a limited number of residential units. Intrusive inspections and additional testing of suspect ACMs and presumed asbestos-containing materials (PACMs) may be required to complement the information provided in this report if any work activities are planned which may disturb ACMs and/or PACMs.

The work was carried out in accordance with the requirements of the OHSA. The site work was conducted by Victoria Pereira on January 9, 2017.

Based on the visual assessment and laboratory analysis, ACMs were identified to be present in the form of:

- 12"x12" vinyl floor tiles – white with dots (non-friable); and,
- Drywall joint-fill compound (non-friable).

The 12"x12" vinyl floor tile – white with dots was observed to be in poor condition (loose tiles) in the storage room in the common room. The remaining materials were observed to be in good condition.

The following building materials were observed to be present but not sampled, and are listed as PACMs:

- Cement pipe;
- Mastic associated with 12"x12" vinyl floor tile – pink mosaic pattern;
- Ceramic tile grout and mortar/adhesive;
- Fire rated doors;
- Brick mortar;
- Exterior door caulking – white;
- Roof caulking; and,
- Roofing materials.

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These materials were observed to be in good condition. These materials were not sampled to preserve their integrity. As these materials are known to have been manufactured with asbestos, they should be presumed to be asbestos-containing unless proven otherwise by laboratory analysis.

Similar materials are likely to present in units not assessed and these should be treated as ACMs or PACMs.

The statements made in this Executive Summary text are subject to the same limitations included in this report, and are to be read in conjunction with the remainder of this report.

Recommendations pertaining to the handling, removal, disposal and management of identified asbestos-containing materials are provided within this report.

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1.0 INTRODUCTION

Stantec Consulting Ltd. (Stantec) was commissioned by the United Counties of Leeds & Grenville (Leeds Grenville) to conduct an Asbestos Building Materials Assessment of the multi-residential building (subject building), located at 80 Water Street in Brockville, Ontario.

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The assessment is intended for the long term management of asbestos-containing building materials to be included as part of an overall Asbestos Management Program (AMP) and not for construction or renovation purposes. The conclusions presented herein represent the findings for a limited number of residential units. Intrusive inspections and additional testing of suspect ACMs and presumed asbestos-containing materials (PACMs) may be required to complement the information provided in this report if any work activities are planned which may disturb ACMs and/or PACMs.

The work was carried out in accordance with the requirements of the OHSA. The site work was conducted by Victoria Pereira on January 9, 2017.

2.0 SCOPE

The scope of work for this assessment involved the following:

- A review of existing information, including site drawings, previous assessment and/or abatement documentation and discussions with site personnel, where available;
- A visual assessment of readily accessible areas for the presence of asbestos-containing building materials. The assessment generally included common areas, mechanical rooms, and a representative number of residential units;
- The collection of representative bulk samples from building materials suspected of containing asbestos fibres;
- Submission of samples collected for laboratory analysis; and,
- Evaluation and interpretation of field findings and laboratory analytical results to develop conclusions and recommendations pertaining to the management of ACMs and PACMs identified within the building.

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2.1 LIMITATIONS

This report reflects the observations made within accessed areas and the results of analyses performed on specific materials sampled during the assessment. Analytical results reflect the sampled materials at the specific sample locations.

Concealed spaces were assessed via existing access panels, where present. Interior and exterior finishes, solid ceilings, walls, flooring and structural elements were not removed to access concealed areas. An inaccessible area, where ACMs may be present includes, but is not limited to: ceiling spaces, wall cavities, crawlspaces, and buried materials.

Due to limitations on the agreed to scope of work for this project as well as physical limitations in accessing concealed areas and limitations associated with working in occupied/operational spaces, there are specific limitations to the information that can be provided for each suspect ACM or PACM considered in this assessment. The presence and asbestos content of some building materials could not be confirmed.

Building materials that may contain asbestos but were not accessible for sampling include, but are not limited to the following:

- Roofing materials;
- Sub-grade materials (e.g., asbestos cement drainage pipe);
- Flooring material concealed beneath carpeting, ceramic tile, brickwork, hardwood flooring, and/or concealed beneath existing sub-floors;
- Insulation material present inside walls (e.g., suspected asbestos-containing vermiculite insulation inside concrete block and/or brick walls);
- Drywall and/or wall plaster and associated finish materials concealed behind new and/or additional walls;
- Woven tape inside duct connection joints;
- Mechanical (e.g., piping and ducting) insulation within wall cavities, crawlspaces tunnels or other concealed spaces;
- Insulation materials inside fire doors;
- Window and door glazing compounds;
- Heating, ventilation and air conditioning (HVAC) units mechanical inner linings and/or inner ducting insulation;
- Heat protection materials inside mechanical installations and light fixtures; and,
- Ceramic tile grout and mortar/adhesive concealed behind ceramic tiles.

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2.1.1 Project-Specific Limitations

The areas included in this assessment were limited to the following:

- Units 102, 203, 210, 304, 409, 505, 607 and 804;
- Common areas (common room, custodian office, entrance lobby, stairwells, hallways, garbage room, garage and laundry room);
- Mechanical Rooms (elevator machine room and electrical room);
- Exterior; and,
- Roof.

The following building materials were reported by UCLG to have been removed and replaced within the last 3 years:

- 12"x12" vinyl floor tiles – white observed in unit 102 kitchen; and,
- Vinyl sheet flooring – marble pattern in the washroom at unit 804.

2.1.2 Information from Previous Reports

Stantec was not provided with previous reports for review.

3.0 REGULATORY FRAMEWORK

Asbestos is included in the *Ontario Regulation, 490/09 Designated Substances*, as amended (O. Reg. 490/09) made under Ontario's OHSA, which primarily regulates worker exposure to asbestos during manufacturing of asbestos-containing products, but also includes requirements related to respiratory equipment, measurement of airborne fibres, and medical surveillance of exposed workers.

Ontario Regulation 278/05 clearly defines ACM as a material that contains 0.5 per cent or more asbestos by dry weight. Additionally, the regulation requires that the "record" (i.e., the Asbestos Building Materials Assessment) be updated at least once in each 12 month period or whenever the owner of the facility becomes aware of new information relating to the suspect and confirmed ACMs.

The general waste management regulation for the province of Ontario is *R.R.O. 1990, Regulation 347 General - Waste Management*, as amended (R.R.O. 1990, 347), under the *Environmental Protection Act* (EPA) of Ontario, sets out the requirements for the proper disposal of asbestos waste in Ontario. The waste must be placed in a double sealed container, properly labeled, free of cuts, tears or punctures and disposed of at a licensed waste station which has been properly notified of the presence of asbestos waste.

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4.0 ASSESSMENT METHODOLOGY

Asbestos-containing materials are grouped into two classifications, friable and non-friable materials. Friable ACMs are those that can easily be crumbled or broken apart by mere hand pressure. When these materials break apart asbestos fibres are then released into the atmosphere. Non-friable ACMs or "manufactured products" are materials that by the nature of their manufacturing/construction do not readily allow the release of asbestos fibres. These materials should not be cut or shaped with power tools, since this procedure may allow for the release of the asbestos fibres. Some non-friable materials such as plaster, drywall and ceiling tiles are considered to be non-friable in an undisturbed state, but can release fibers when damaged or disturbed.

It is Stantec's understanding that the subject building was constructed before 1990. This construction time period is consistent with those dates when asbestos-containing building materials were commonly used.

A visual assessment of accessible areas was undertaken in order to check for the presence of materials suspected of containing asbestos. Locations to collect discrete bulk asbestos samples of suspect building materials were identified. Samples of representative materials were then collected at these locations. An assessment of the condition and accessibility was completed for each occurrence of an ACM. The Public Works and Government Services Canada (PWGSC) document entitled *Deputy Ministers Directive 057 – Asbestos Management* (Last Revised June 16, 1999) was used as the basis for the criteria that was applied in evaluating the presence of ACMs and PACMs within the subject building, where applicable.

Samples of suspect ACMs from various building materials were collected and submitted to Paracel Laboratories Ltd. (Paracel) located in Ottawa, Ontario for analysis using Polarized Light Microscopy (PLM) with dispersion staining. The analysis was conducted following the U.S. EPA/600/R-93/116 Method. Paracel is certified under the National Voluntary Laboratory Accreditation Program (NVLAP) to perform asbestos analysis of bulk samples. Asbestos-containing materials are defined as a material that contains 0.5 per cent or more asbestos by dry weight.

A positive stop option was used. Multiple samples of visually similar material were collected and submitted for laboratory analysis. Once one sample within the set is identified to contain asbestos, further analysis of the subsequent samples is deemed to be unnecessary and not conducted.

4.1 FACILITY DESCRIPTION

The multi-residential building located at 80 Water Street consists of an eight (8) level building with 82 units. The reported construction date of the building is 1976. The typical structural components and finishes associated with this building consist of brick exterior walls, various types of flooring

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including cement, vinyl floor tile, vinyl sheet flooring, ceramic tile, carpet and terrazzo flooring and interior concrete block and drywall walls with concrete and suspended ceiling tile ceilings.

4.2 DOCUMENT REVIEW

Stantec was not provided with previous reports for review.

5.0 FINDINGS

A summary list of the bulk samples collected by Stantec, including a description of the material, sampling location, type of analysis and laboratory test results is provided in **Appendix A**. A copy of the PLM Laboratory Certificates of Analysis for bulk samples collected is provided in **Appendix B**.

A summary of occurrences of ACMs and/or PACMs is provided in **Appendix C**. Each ACM occurrence includes the following information:

- Room component that contains ACM;
- Location of the ACM within the room space;
- ACM description;
- Estimated quantity;
- Original sample number or representative sample number;
- Friability;
- Condition; and
- Comments regarding recommended actions.

Selected site photographs are provided in **Appendix D**.

5.1 FRIABLE ASBESTOS-CONTAINING MATERIALS

Friable building materials suspected to be asbestos-containing were identified by laboratory analysis to be non-asbestos-containing.

5.2 NON-FRIABLE ASBESTOS-CONTAINING MATERIALS

Non-friable building materials were observed to be present and identified by laboratory analysis to be asbestos-containing in the form of:

- 12"x12" vinyl floor tiles – white with dots; and,
- Drywall joint-fill compound.

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The 12"x12" vinyl floor tile – white with dots was observed to be in poor condition (2-3 loose tiles) in the storage room located inside the common room. The remaining materials were observed to be in good condition.

It should be noted that drywall joint-fill compound is considered non-friable in its undisturbed state but can release fibers when damaged.

Similar asbestos-containing materials are likely to present in units not assessed and should be treated as asbestos-containing materials. Materials not sampled should be presumed to be asbestos-containing.

5.3 PRESUMED ASBESTOS-CONTAINING MATERIALS

The following building materials were observed to be present but not sampled, and are listed as PACMs:

- Cement pipe;
- Mastic associated with 12"x12" vinyl floor tile – pink mosaic pattern;
- Ceramic tile grout and mortar/adhesive;
- Fire rated doors;
- Brick mortar;
- Exterior door caulking – white;
- Roof caulking; and,
- Roofing materials.

These materials were observed to be in good condition. These materials were not sampled to preserve their integrity. As these materials are known to have been manufactured with asbestos, they should be presumed to be asbestos-containing unless proven otherwise by laboratory analysis.

5.4 NON-ASBESTOS-CONTAINING MATERIALS

It should be noted that the following building materials were reported by UCLG to have been removed and replaced within the last 3 years:

- 12"x12" vinyl floor tiles – white observed in unit 102 kitchen; and,
- Vinyl sheet flooring – marble pattern in the washroom at unit 804.

A summary list of the bulk samples collected during this assessment and confirmed to be non-ACMs by laboratory analysis is provided in **Appendix A**.

5.5 POTENTIAL FOR VERMICULITE INSULATION

Various walls of the subject building were comprised of masonry (concrete) blocks. Asbestos-contaminated vermiculite was historically used as insulating material in masonry block or brick

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walls. To assess for this potential ACM, destructive sampling is required, which was not conducted as part of this assessment. Although various holes, breaches and cracks were observed and no vermiculite was present, the presence of this potential ACM cannot be ruled out without destructive testing.

6.0 RECOMMENDATIONS

Stantec recommends the following with regards to meeting the requirements of O. Reg. 278/05:

- Damaged asbestos-containing 12"x12" vinyl floor tiles – white with dots (recommended corrective action), in the storage room in the common room should be removed and replaced following Type 1 abatement procedures;
- Asbestos-containing materials that may be impacted during renovation and/or demolition activities should be removed prior to the renovation and/or demolition activities;
- Prior to renovation and/or demolition activities that would disturb them, undertake testing of PACMs that may be impacted to determine their asbestos content. Confirmed asbestos materials should be handled accordingly;
- Should a material suspected to contain asbestos fibres become uncovered during renovation and/or demolition activities, all work in the areas that may disturb the material should be stopped. Samples of the suspect material should be submitted for laboratory analysis to determine if asbestos fibres are present. Confirmed asbestos materials should be handled accordingly;
- If masonry block walls are to be impacted by renovation and/or demolition work, and these walls have not been checked for the presence of vermiculite insulation, intrusive assessments for vermiculite should be undertaken prior to planned renovation and/or demolition work. If vermiculite insulation is suspected to be present, this material should be treated as an ACM until testing can show otherwise; and,
- This report should be added to the Asbestos Management Program and referred to as the current asbestos record.

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7.0 CLOSURE

This report has been prepared for the sole benefit of United Counties of Leeds & Grenville. The report may not be used or relied upon by any other person or entity without the express written consent of Stantec Consulting Ltd. and United Counties of Leeds & Grenville.

Any uses that a third party makes of this report, or any reliance on decisions based on it, are the responsibility of such third parties. Stantec Consulting Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted engineering and scientific practices current at the time the work was performed. Conclusions presented in this report should not be construed as legal advice.

The conclusions presented in this report represent the best technical judgment of Stantec Consulting Ltd. based on the data obtained from the work. The conclusions are based on the site conditions encountered by Stantec Consulting Ltd. at the time the work was performed at the specific assessment and/or sampling locations, and can only be extrapolated to an undefined limited area around these locations. The extent of the limited area depends on building construction and conditions, weather, building usage and other factors. Due to the nature of the investigation and the limited data available, Stantec Consulting Ltd. cannot warrant against undiscovered environmental liabilities.

If any conditions become apparent that differ significantly from our understanding of conditions as presented in this report, we request that we be notified immediately to reassess the conclusions provided herein.

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We trust that the above is satisfactory for your purposes at this time. Should you have any questions or concerns, or require additional information, please do not hesitate to contact the undersigned at your convenience.

This report was prepared by Victoria Pereira and reviewed by Linda Fleet and Rob Robinson.

Regards,

STANTEC CONSULTING LTD.



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Appendix A
Summary of Results for Analysis of
Bulk Samples for Asbestos Content
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Appendix A

Summary of Results for Analysis of Bulk Samples for Asbestos Content

Summary of Bulk Sample Analysis for Asbestos Type and Content

Sample Number	Sampling Location	Description of Sampled Material	Asbestos Type and Content	Analysis
80-BS-01A	8th Floor Stairs - Ceiling	Stucco Texture Coat	None Detected	PLM
80-BS-01B	7th Floor Stairs - Ceiling	Stucco Texture Coat	None Detected	PLM
80-BS-01C	6th Floor Stairs - Ceiling	Stucco Texture Coat	None Detected	PLM
80-BS-01D	5th Floor Stairs - Ceiling	Stucco Texture Coat	None Detected	PLM
80-BS-01E	4th Floor Stairs - Ceiling	Stucco Texture Coat	None Detected	PLM
80-BS-01F	3rd Floor Stairs - Ceiling	Stucco Texture Coat	None Detected	PLM
80-BS-01G	2nd Floor Stairs - Ceiling	Stucco Texture Coat	None Detected	PLM
80-BS-02A	1st Floor Entertainment Room - Floor	12"x12"Vinyl Floor Tiles - Pink Mosaic Pattern	None Detected	PLM
80-BS-02B	1st Floor Entertainment Room - Floor	12"x12"Vinyl Floor Tiles - Pink Mosaic Pattern	None Detected	PLM
80-BS-02C	1st Floor Entertainment Room - Floor	12"x12"Vinyl Floor Tiles - Pink Mosaic Pattern	None Detected	PLM
80-BS-03A	1st Floor Entertainment Room - Bulkhead	Drywall Joint-Fill Compound	3% Chrysotile	PLM
80-BS-03B	1st Floor Entertainment Room - Bulkhead	Drywall Joint-Fill Compound	Stop Positive Not Analyzed	PLM
80-BS-03C	1st Floor Stairs - Wall	Drywall Joint-Fill Compound	Stop Positive Not Analyzed	PLM
80-BS-03D	8th Floor Corridor - Wall	Drywall Joint-Fill Compound	Stop Positive Not Analyzed	PLM
80-BS-03E	1st Floor Laundry Room - Wall	Drywall Joint-Fill Compound	Stop Positive Not Analyzed	PLM
80-BS-03F	1st Floor Corridor - Wall	Drywall Joint-Fill Compound	Stop Positive Not Analyzed	PLM
80-BS-03G	1st Floor Entertainment Room - Wall	Drywall Joint-Fill Compound	Stop Positive Not Analyzed	PLM

Summary of Bulk Sample Analysis for Asbestos Type and Content

Sample Number	Sampling Location	Description of Sampled Material	Asbestos Type and Content	Analysis
80-BS-04A	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Textured with Pinholes	None Detected	PLM
80-BS-04B	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Textured with Pinholes	None Detected	PLM
80-BS-04C	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Textured with Pinholes	None Detected	PLM
80-BS-05A-FLOOR TILE	1st Floor Common Room, Storage - Floor	12"x12" Vinyl Floor Tiles - White with Dots	4.16% Chrysotile	PLM
80-BS-05A-MASTIC	1st Floor Common Room, Storage - Floor	12"x12" Vinyl Floor Tiles - White with Dots	None Detected	PLM
80-BS-05B-FLOOR TILE	1st Floor Common Room, Storage - Floor	12"x12" Vinyl Floor Tiles - White with Dots	Stop Positive Not Analyzed	PLM
80-BS-05B-MASTIC	1st Floor Common Room, Storage - Floor	12"x12" Vinyl Floor Tiles - White with Dots	None Detected	PLM
80-BS-05C-FLOOR TILE	1st Floor Common Room, Storage - Floor	12"x12" Vinyl Floor Tiles - White with Dots	Stop Positive Not Analyzed	PLM
80-BS-05C-MASTIC	1st Floor Common Room, Storage - Floor	12"x12" Vinyl Floor Tiles - White with Dots	None Detected	PLM
80-BS-06A	1st Floor Common Room - Window	Interior Glaze - Beige	None Detected	PLM
80-BS-06B	1st Floor Common Room - Window	Interior Glaze - Beige	None Detected	PLM
80-BS-06C	1st Floor Common Room - Window	Interior Glaze - Beige	None Detected	PLM
80-BS-07A	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Small Fissures and Pinholes	None Detected	PLM
80-BS-07B	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Small Fissures and Pinholes	None Detected	PLM
80-BS-07C	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Small Fissures and Pinholes	None Detected	PLM
80-BS-08A	Exterior, Entertainment - window	Exterior Caulking - Grey	None Detected	PLM
80-BS-08B	Exterior, Entertainment - Window	Exterior Caulking - Grey	None Detected	PLM

Summary of Bulk Sample Analysis for Asbestos Type and Content

Sample Number	Sampling Location	Description of Sampled Material	Asbestos Type and Content	Analysis
80-BS-08C	Exterior, Entertainment - Window	Exterior Caulking - Grey	None Detected	PLM
80-BS-09A	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Large Fissures and Pinholes	None Detected	PLM
80-BS-09B	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Large Fissures and Pinholes	None Detected	PLM
80-BS-09C	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Large Fissures and Pinholes	None Detected	PLM
80-BS-10A	8th Floor Corridor - Ceiling	2'x4' Acoustic ceiling tile - Extra Large Fissures and Pinholes	None Detected	PLM
80-BS-10B	8th Floor Corridor - Ceiling	2'x4' Acoustic ceiling tile - Extra Large Fissures and Pinholes	None Detected	PLM
80-BS-10C	8th Floor Corridor - Ceiling	2'x4' Acoustic ceiling tile - Extra Large Fissures and Pinholes	None Detected	PLM
80-BS-11A	8th Floor Corridor - Ceiling	Paper in Cement Block	None Detected	PLM
80-BS-11B	8th Floor Corridor - Ceiling	Paper in Cement Block	None Detected	PLM
80-BS-11C	8th Floor Corridor - Ceiling	Paper in Cement Block	None Detected	PLM
80-BS-12A	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Large and Small Pinholes	None Detected	PLM
80-BS-12B	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Large and Small Pinholes	None Detected	PLM
80-BS-12C	8th Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Large and Small Pinholes	None Detected	PLM
80-BS-13A	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Tiny Fissure and Small Pinholes	None Detected	PLM
80-BS-13B	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Tiny Fissure and Small Pinholes	None Detected	PLM
80-BS-13C	1st Floor Corridor - Ceiling	2'x4' Acoustic Ceiling Tile - Tiny Fissure and Small Pinholes	None Detected	PLM
80-BS-14A	Roof Elevator Machine Room - Door	Exterior Caulking - Green	None Detected	PLM

Summary of Bulk Sample Analysis for Asbestos Type and Content

Sample Number	Sampling Location	Description of Sampled Material	Asbestos Type and Content	Analysis
80-BS-14B	Roof Elevator Machine Room - Door	Exterior Caulking - Green	None Detected	PLM
80-BS-14C	Roof Elevator Machine Room - Joint	Exterior Caulking - Green	None Detected	PLM
80-BS-15A	Roof Elevator Machine Room - Joint	Exterior Caulking - White	None Detected	PLM
80-BS-15B	Roof Elevator Machine Room - Joint	Exterior Caulking - White	None Detected	PLM
80-BS-15C	Roof Elevator Machine Room - Joint	Exterior Caulking - White	None Detected	PLM
80-BS-16A	Roof Entrance - Door	Interior Caulking - Beige	None Detected	PLM
80-BS-16B	Roof Entrance - Door	Interior Caulking - Beige	None Detected	PLM
80-BS-16C	Roof Entrance - Door	Interior Caulking - Beige	None Detected	PLM
80-BS-17A	Roof Entrance - Door	Exterior Caulking - Beige	None Detected	PLM
80-BS-17B	Roof Entrance - Door	Exterior Caulking - Beige	None Detected	PLM
80-BS-17C	Roof Entrance - Door	Exterior Caulking - Beige	None Detected	PLM
80-BS-18A	1st Floor, Electrical Room - Ceiling	Fire Stop - Grey	None Detected	PLM
80-BS-18B	1st Floor, Electrical Room - Ceiling	Fire Stop - Grey	None Detected	PLM
80-BS-18C	1st Floor, Electrical Room - Ceiling	Fire Stop - Grey	None Detected	PLM
80-BS-19A	1st Floor, Laundry Room - Floor	Vinyl Sheet Flooring - Pink and Green Mosaic	None Detected	PLM
80-BS-19B	1st Floor, Laundry Room - Floor	Vinyl Sheet Flooring - Pink and Green Mosaic	None Detected	PLM
80-BS-19C	1st Floor, Laundry Room - Floor	Vinyl Sheet Flooring - Pink and Green Mosaic	None Detected	PLM

Summary of Bulk Sample Analysis for Asbestos Type and Content

Sample Number	Sampling Location	Description of Sampled Material	Asbestos Type and Content	Analysis
80-BS-20A	1st Floor, Laundry Room - Countertop	Interior Caulking - White	None Detected	PLM
80-BS-20B	1st Floor, Laundry Room - Countertop	Interior Caulking - White	None Detected	PLM
80-BS-20C	1st Floor, Laundry Room - Countertop	Interior Caulking - White	None Detected	PLM
80-BS-21A	1st Floor, Laundry Room - Floor	Vinyl Sheet Flooring - Purple and Pink Mosaic	None Detected	PLM
80-BS-21B	1st Floor, Laundry Room - Floor	Vinyl Sheet Flooring - Purple and Pink Mosaic	None Detected	PLM
80-BS-21C	1st Floor, Laundry Room - Floor	Vinyl Sheet Flooring - Purple and Pink Mosaic	None Detected	PLM

ASBESTOS BUILDING MATERIALS ASSESSMENT

Appendix B
Laboratory Analytical Reports – Asbestos: Polarized Light Microscopy
February 17, 2017

Appendix B **Laboratory Analytical Reports – Asbestos: Polarized Light Microscopy**

Certificate of Analysis

Stantec Consulting Ltd. (Ottawa)

300-675 Cochrane Dr West Tower
Markham, ON L3R 0B8
Attn: Linda Fleet

Client PO: 122150275- 80 Water
Project: 122150275
Custody:

Report Date: 24-Jan-2017
Order Date: 16-Jan-2017

Revised Report

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1703067-01	80-BS-01A
1703067-02	80-BS-01B
1703067-03	80-BS-01C
1703067-04	80-BS-01D
1703067-05	80-BS-01E
1703067-06	80-BS-01F
1703067-07	80-BS-01G
1703067-08	80-BS-02A (Tile)
1703067-09	80-BS-02B (Tile)
1703067-10	80-BS-02C (Tile)
1703067-11	80-BS-03A
1703067-12	80-BS-03B
1703067-13	80-BS-03C
1703067-14	80-BS-03D
1703067-15	80-BS-03E
1703067-16	80-BS-03F
1703067-17	80-BS-03G
1703067-18	80-BS-04A
1703067-19	80-BS-04B
1703067-20	80-BS-04C
1703067-21	80-BS-05A (VFT)
1703067-22	80-BS-05B (VFT)
1703067-23	80-BS-05C (VFT)
1703067-24	80-BS-06A
1703067-25	80-BS-06B
1703067-26	80-BS-06C

Approved By:



Emma Diaz
Senior Analyst

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Certificate of Analysis

Client: Stantec Consulting Ltd. (Ottawa)

Client PO: 122150275- 80 Water

Report Date: 24-Jan-2017

Order Date: 16-Jan-2017

Project Description: 122150275

1703067-27	80-BS-07A
1703067-28	80-BS-07B
1703067-29	80-BS-07C
1703067-30	80-BS-08A
1703067-31	80-BS-08B
1703067-32	80-BS-08C
1703067-33	80-BS-09A
1703067-34	80-BS-09B
1703067-35	80-BS-09C
1703067-36	80-BS-10A
1703067-37	80-BS-10B
1703067-38	80-BS-10C
1703067-39	80-BS-11A
1703067-40	80-BS-11B
1703067-41	80-BS-11C
1703067-42	80-BS-12A
1703067-43	80-BS-12B
1703067-44	80-BS-12C
1703067-45	80-BS-13A
1703067-46	80-BS-13B
1703067-47	80-BS-13C
1703067-48	80-BS-14A
1703067-49	80-BS-14B
1703067-50	80-BS-14C
1703067-51	80-BS-15A
1703067-52	80-BS-15B
1703067-53	80-BS-15C
1703067-54	80-BS-16A
1703067-55	80-BS-16B
1703067-56	80-BS-16C
1703067-57	80-BS-17A
1703067-58	80-BS-17B
1703067-59	80-BS-17C
1703067-60	80-BS-18A
1703067-61	80-BS-18B
1703067-62	80-BS-18C
1703067-63	80-BS-19A (VSF)
1703067-64	80-BS-19B (VSF)
1703067-65	80-BS-19C (VSF)
1703067-66	80-BS-20A
1703067-67	80-BS-20B
1703067-68	80-BS-20C
1703067-69	80-BS-21A
1703067-70	80-BS-21B

Certificate of Analysis

Client: **Stantec Consulting Ltd. (Ottawa)**

Client PO: **122150275- 80 Water**

Report Date: 24-Jan-2017

Order Date: 16-Jan-2017

Project Description: **122150275**

1703067-71	80-BS-21C
1703067-72	80-BS-05A (Mastic)
1703067-73	80-BS-05B (Mastic)
1703067-74	80-BS-05C (Mastic)

Certificate of Analysis
 Client: **Stantec Consulting Ltd. (Ottawa)**
 Client PO: **122150275- 80 Water**

Report Date: 24-Jan-2017
 Order Date: 16-Jan-2017
 Project Description: **122150275**

Asbestos, PLM Visual Estimation **MDL - 0.5%**

<i>Parcel I.D.</i>	<i>Sample Date</i>	<i>Layers Analyzed</i>	<i>Colour</i>	<i>Description</i>	<i>Asbestos Detected:</i>	<i>Material Identification</i>	<i>% Content</i>
1703067-01	13-Jan-17	sample homogenized	White	Texture Coat	No	Client ID: 80-BS-01A Non-Fibers	100
1703067-02	13-Jan-17	sample homogenized	White	Texture Coat	No	Client ID: 80-BS-01B Non-Fibers	100
1703067-03	13-Jan-17	sample homogenized	White	Texture Coat	No	Client ID: 80-BS-01C Non-Fibers	100
1703067-04	13-Jan-17	sample homogenized	White	Texture Coat	No	Client ID: 80-BS-01D Non-Fibers	100
1703067-05	13-Jan-17	sample homogenized	White	Texture Coat	No	Client ID: 80-BS-01E Non-Fibers	100
1703067-06	13-Jan-17	sample homogenized	White	Texture Coat	No	Client ID: 80-BS-01F Non-Fibers	100
1703067-07	13-Jan-17	sample homogenized	White	Texture Coat	No	Client ID: 80-BS-01G Non-Fibers	100
1703067-08	13-Jan-17	sample homogenized	Pink	Floor Tile	No	Client ID: 80-BS-02A (Tile) Non-Fibers	[AS-PRE] 100
1703067-09	13-Jan-17	sample homogenized	Pink	Floor Tile	No	Client ID: 80-BS-02B (Tile) Non-Fibers	[AS-PRE] 100
1703067-10	13-Jan-17	sample homogenized	Pink	Floor Tile	No	Client ID: 80-BS-02C (Tile) Non-Fibers	[AS-PRE] 100
1703067-11	13-Jan-17	sample homogenized	Grey	Drywall Joint Compound	Yes	Client ID: 80-BS-03A Chrysotile Non-Fibers	3 97
1703067-12	13-Jan-17					Client ID: 80-BS-03B not analyzed	
1703067-13	13-Jan-17					Client ID: 80-BS-03C not analyzed	
1703067-14	13-Jan-17					Client ID: 80-BS-03D not analyzed	
1703067-15	13-Jan-17					Client ID: 80-BS-03E not analyzed	
1703067-16	13-Jan-17					Client ID: 80-BS-03F not analyzed	
1703067-17	13-Jan-17					Client ID: 80-BS-03G not analyzed	

Certificate of Analysis
 Client: **Stantec Consulting Ltd. (Ottawa)**
 Client PO: **122150275- 80 Water**

Report Date: 24-Jan-2017
 Order Date: 16-Jan-2017
 Project Description: **122150275**

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel I.D.	Sample Date	Layers Analyzed	Colour	Description	Asbestos Detected:	Material Identification	% Content
1703067-18	13-Jan-17	sample homogenized	White/Brown	Ceiling Tile	No	Client ID: 80-BS-04A [AS-PRE] Cellulose	50
						MMVF	10
						Non-Fibers	40
1703067-19	13-Jan-17	sample homogenized	White/Brown	Ceiling Tile	No	Client ID: 80-BS-04B [AS-PRE] Cellulose	50
						MMVF	10
						Non-Fibers	40
1703067-20	13-Jan-17	sample homogenized	White/Brown	Ceiling Tile	No	Client ID: 80-BS-04C [AS-PRE] Cellulose	50
						MMVF	10
						Non-Fibers	40
1703067-21	13-Jan-17	sample homogenized	White	Floor Tile	Yes	Client ID: 80-BS-05A (VFT) [AS-PRE] Chrysotile	4.16
						Non-Fibers	95.84
1703067-22	13-Jan-17					Client ID: 80-BS-05B (VFT) not analyzed	
1703067-23	13-Jan-17					Client ID: 80-BS-05C (VFT) not analyzed	
1703067-24	13-Jan-17	sample homogenized	Red/Beige	Caulking	No	Client ID: 80-BS-06A [AS-PRE] Non-Fibers	100
1703067-25	13-Jan-17	sample homogenized	Red/Beige	Caulking	No	Client ID: 80-BS-06B [AS-PRE] Non-Fibers	100
1703067-26	13-Jan-17	sample homogenized	Red/Beige	Caulking	No	Client ID: 80-BS-06C [AS-PRE] Non-Fibers	100
1703067-27	13-Jan-17	sample homogenized	White/Brown	Ceiling Tile	No	Client ID: 80-BS-07A [AS-PRE] Cellulose	50
						MMVF	10
						Non-Fibers	40
1703067-28	13-Jan-17	sample homogenized	White/Brown	Ceiling Tile	No	Client ID: 80-BS-07B [AS-PRE] Cellulose	50
						MMVF	10
						Non-Fibers	40

Certificate of Analysis
 Client: **Stantec Consulting Ltd. (Ottawa)**
 Client PO: **122150275- 80 Water**

Report Date: 24-Jan-2017
 Order Date: 16-Jan-2017
 Project Description: **122150275**

Asbestos, PLM Visual Estimation **MDL - 0.5%**

<i>Parcel I.D.</i>	<i>Sample Date</i>	<i>Layers Analyzed</i>	<i>Colour</i>	<i>Description</i>	<i>Asbestos Detected:</i>	<i>Material Identification</i>	<i>% Content</i>
1703067-29	13-Jan-17	sample homogenized	White/Brown	Ceiling Tile	No	Client ID: 80-BS-07C [AS-PRE]	
						Cellulose	50
						MMVF	10
						Non-Fibers	40
1703067-30	13-Jan-17	sample homogenized	Grey	Caulking	No	Client ID: 80-BS-08A [AS-PRE]	
						Non-Fibers	100
1703067-31	13-Jan-17	sample homogenized	Grey	Caulking	No	Client ID: 80-BS-08B [AS-PRE]	
						Non-Fibers	100
1703067-32	13-Jan-17	sample homogenized	Grey	Caulking	No	Client ID: 80-BS-08C [AS-PRE]	
						Non-Fibers	100
1703067-33	13-Jan-17	sample homogenized	White/Brown	Ceiling Tile	No	Client ID: 80-BS-09A [AS-PRE]	
						Cellulose	40
						MMVF	20
						Non-Fibers	40
1703067-34	13-Jan-17	sample homogenized	White/Brown	Ceiling Tile	No	Client ID: 80-BS-09B [AS-PRE]	
						Cellulose	40
						MMVF	20
						Non-Fibers	40
1703067-35	13-Jan-17	sample homogenized	White/Brown	Ceiling Tile	No	Client ID: 80-BS-09C [AS-PRE]	
						Cellulose	40
						MMVF	20
						Non-Fibers	40
1703067-36	13-Jan-17	sample homogenized	White/Grey	Ceiling Tile	No	Client ID: 80-BS-10A [AS-PRE]	
						Cellulose	40
						MMVF	20
						Non-Fibers	40
1703067-37	13-Jan-17	sample homogenized	White/Grey	Ceiling Tile	No	Client ID: 80-BS-10B [AS-PRE]	
						Cellulose	40
						MMVF	20
						Non-Fibers	40
1703067-38	13-Jan-17	sample homogenized	White/Grey	Ceiling Tile	No	Client ID: 80-BS-10C [AS-PRE]	
						Cellulose	40
						MMVF	20
						Non-Fibers	40

Certificate of Analysis

Report Date: 24-Jan-2017

Client: Stantec Consulting Ltd. (Ottawa)

Order Date: 16-Jan-2017

Client PO: 122150275- 80 Water

Project Description: 122150275

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel I.D.	Sample Date	Layers Analyzed	Colour	Description	Asbestos Detected:	Material Identification	% Content
1703067-39	13-Jan-17	sample homogenized	Brown	Paper	No	Client ID: 80-BS-11A [AS-PRE]	
						Cellulose	95
						Non-Fibers	5
1703067-40	13-Jan-17	sample homogenized	Brown	Paper	No	Client ID: 80-BS-11B [AS-PRE]	
						Cellulose	95
						Non-Fibers	5
1703067-41	13-Jan-17	sample homogenized	Brown	Paper	No	Client ID: 80-BS-11C [AS-PRE]	
						Cellulose	95
						Non-Fibers	5
1703067-42	13-Jan-17	sample homogenized	White/Brown	Ceiling Tile	No	Client ID: 80-BS-12A [AS-PRE]	
						Cellulose	40
						MMVF	20
1703067-43	13-Jan-17	sample homogenized	White/Brown	Ceiling Tile	No	Client ID: 80-BS-12B [AS-PRE]	
						Cellulose	40
						MMVF	20
1703067-44	13-Jan-17	sample homogenized	White/Brown	Ceiling Tile	No	Client ID: 80-BS-12C [AS-PRE]	
						Cellulose	40
						MMVF	20
1703067-45	13-Jan-17	sample homogenized	White/Grey	Ceiling Tile	No	Client ID: 80-BS-13A [AS-PRE]	
						Cellulose	40
						MMVF	20
1703067-46	13-Jan-17	sample homogenized	White/Grey	Ceiling Tile	No	Client ID: 80-BS-13B [AS-PRE]	
						Cellulose	40
						MMVF	40
1703067-47	13-Jan-17	sample homogenized	White/Grey	Ceiling Tile	No	Client ID: 80-BS-13C [AS-PRE]	
						Cellulose	40
						MMVF	20
1703067-48	13-Jan-17	sample homogenized	Green	Caulking	No	Client ID: 80-BS-14A [AS-PRE]	
						Non-Fibers	100

Certificate of Analysis

Report Date: 24-Jan-2017

Client: Stantec Consulting Ltd. (Ottawa)

Order Date: 16-Jan-2017

Client PO: 122150275- 80 Water

Project Description: 122150275

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel I.D.	Sample Date	Layers Analyzed	Colour	Description	Asbestos Detected:	Material Identification	% Content
1703067-49	13-Jan-17	sample homogenized	Green	Caulking	No	Client ID: 80-BS-14B [AS-PRE] Non-Fibers	100
1703067-50	13-Jan-17	sample homogenized	Green	Caulking	No	Client ID: 80-BS-14C [AS-PRE] Non-Fibers	100
1703067-51	13-Jan-17	sample homogenized	White	Caulking	No	Client ID: 80-BS-15A [AS-PRE] Non-Fibers	100
1703067-52	13-Jan-17	sample homogenized	White	Caulking	No	Client ID: 80-BS-15B [AS-PRE] Non-Fibers	100
1703067-53	13-Jan-17	sample homogenized	White	Caulking	No	Client ID: 80-BS-15C [AS-PRE] Non-Fibers	100
1703067-54	13-Jan-17	sample homogenized	Beige	Caulking	No	Client ID: 80-BS-16A [AS-PRE] Non-Fibers	100
1703067-55	13-Jan-17	sample homogenized	Beige	Caulking	No	Client ID: 80-BS-16B [AS-PRE] Non-Fibers	100
1703067-56	13-Jan-17	sample homogenized	Beige	Caulking	No	Client ID: 80-BS-16C [AS-PRE] Non-Fibers	100
1703067-57	13-Jan-17	sample homogenized	Beige	Caulking	No	Client ID: 80-BS-17A [AS-PRE] Non-Fibers	100
1703067-58	13-Jan-17	sample homogenized	Beige	Caulking	No	Client ID: 80-BS-17B [AS-PRE] Non-Fibers	100
1703067-59	13-Jan-17	sample homogenized	Beige	Caulking	No	Client ID: 80-BS-17C [AS-PRE] Non-Fibers	100
1703067-60	13-Jan-17	sample homogenized	Grey	Firestop	No	Client ID: 80-BS-18A MMVF Non-Fibers	1 99
1703067-61	13-Jan-17	sample homogenized	Grey	Firestop	No	Client ID: 80-BS-18B MMVF Non-Fibers	1 99
1703067-62	13-Jan-17	sample homogenized	Grey	Firestop	No	Client ID: 80-BS-18C MMVF Non-Fibers	1 99
1703067-63	13-Jan-17	sample homogenized	Pink/Green	Vinyl Floor Tile	No	Client ID: 80-BS-19A (VSF) [AS-PRE] Non-Fibers	100
1703067-64	13-Jan-17	sample homogenized	Pink/Green	Vinyl Floor Tile	No	Client ID: 80-BS-19B (VSF) [AS-PRE] Non-Fibers	100

Certificate of Analysis

Report Date: 24-Jan-2017

Client: Stantec Consulting Ltd. (Ottawa)

Order Date: 16-Jan-2017

Client PO: 122150275- 80 Water

Project Description: 122150275

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel I.D.	Sample Date	Layers Analyzed	Colour	Description	Asbestos Detected:	Material Identification	% Content
1703067-65	13-Jan-17	sample homogenized	Pink/Green	Vinyl Floor Tile	No	Client ID: 80-BS-19C (VSF) [AS-PRE] Non-Fibers	100
1703067-66	13-Jan-17	sample homogenized	White	Caulking	No	Client ID: 80-BS-20A [AS-PRE] Non-Fibers	100
1703067-67	13-Jan-17	sample homogenized	White	Caulking	No	Client ID: 80-BS-20B [AS-PRE] Non-Fibers	100
1703067-68	13-Jan-17	sample homogenized	White	Caulking	No	Client ID: 80-BS-20C [AS-PRE] Non-Fibers	100
1703067-69	13-Jan-17	sample homogenized	Purple/Pink	Vinyl Floor Tile	No	Client ID: 80-BS-21A [AS-PRE] Non-Fibers	100
1703067-70	13-Jan-17	sample homogenized	Purple/Pink	Vinyl Floor Tile	No	Client ID: 80-BS-21B [AS-PRE] Non-Fibers	100
1703067-71	13-Jan-17	sample homogenized	Purple/Pink	Vinyl Floor Tile	No	Client ID: 80-BS-21C [AS-PRE] Non-Fibers	100
1703067-72	13-Jan-17	sample homogenized	Black	Mastic	No	Client ID: 80-BS-05A (Mastic) [AS-PRE] Non-Fibers	100
1703067-73	13-Jan-17	sample homogenized	Black	Mastic	No	Client ID: 80-BS-05B (Mastic) [AS-PRE] Non-Fibers	100
1703067-74	13-Jan-17	sample homogenized	Black	Mastic	No	Client ID: 80-BS-05C (Mastic) [AS-PRE] Non-Fibers	100

* MMVF: Man Made Vitreous Fibers: Fiberglass, Mineral Wool, Rockwool, Glasswool

** Analytes in bold indicate asbestos mineral content.

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	NVLAP Lab Code *	Analysis Date
Asbestos, PLM Visual Estimation	by EPA 600/R-93/116	2 - Ottawa West Lab	200812-0	18-Jan-17

* Reference to the NVLAP term does not permit the user of this report to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Qualifier Notes

Sample Qualifiers :

AS-PRE: Due to the difficult nature of the bulk sample (interfering fibers/binders), additional NOB preparation was required prior to analysis

Certificate of Analysis

Report Date: 24-Jan-2017

Client: **Stantec Consulting Ltd. (Ottawa)**

Order Date: 16-Jan-2017

Client PO: **122150275- 80 Water**

Project Description: 122150275

Work Order Revisions / Comments

REV 1 - Additional samples (mastic samples) added per client.

ASBESTOS BUILDING MATERIALS ASSESSMENT

Appendix C
Summary of Occurrences of Asbestos-Containing Materials
February 17, 2017

Appendix C

Summary of Occurrences of Asbestos-Containing Materials

Summary of Occurrences of Asbestos-Containing Materials

Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable? Visible?	Access.	ACM Condition	Comments/ Notes
1	Common Room	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	150 sq. m	80-BS-03A	Yes	3% Chrysotile	No Yes	A	good	ACM
1	Common Room	Storage Room	Floor	12"x12"Vinyl Floor Tiles - White with Dots	10 sq. m	80-BS-05A-Floor Tile	Yes	4.16% Chrysotile	No Yes	A	poor	2-3 LOOSE TILES OBSERVED
1	Common Room	Kitchen	Under Floor Tile	12"x12" Vinyl Floor Tile - Pink Mosaic Pattern	15 sq.m	NS	No	PACM	No No	D	unknown (PACM)	PACM
1	Common Room	Storage Room	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
1	Corridors	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
1	Corridors	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	175 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
1	Custodian Office	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
1	Custodian Office	Floor	Floor	12"x12"Vinyl Floor Tiles - White with Dots	10 sq. m	Ref: 80-BS-05A-Floor Tile	No	4.16% Chrysotile	No Yes	A	good	ACM
1	Electrical Room	Mechanical	Below Ceiling	Cement Pipe	3 m	NS	No	PACM	No Yes	B	good (PACM)	PACM
1	Electrical Room	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
1	Elevator Lobby	Walls and Floors	Walls and Floors	Ceramic Tile Grout and Mortar / Adhesive	15 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM
1	Garage	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM

Accessibility Classification

- A - Areas of the building within reach (from floor level) of all building users
- B - Frequently entered maintenance areas within reach of maintenance staff, without the need for a ladder
- C - Areas of the building above 2.4 m where use of a ladder is required to reach the asbestos
- D - Areas of the building behind inaccessible solid ceiling systems, walls, or mechanical equipment, etc., where demolition of the ceiling, wall, or equipment, etc., is required to reach the asbestos

Visibility

- Yes - Suspect material is visible without opening hatches or lifting ceiling tiles
- No - Suspect material can only be viewed if access hatches are opened or ceiling tiles lifted.

* Based on a non-intrusive inspection of visible surfaces within the room space.

- Notes:
- ACM - asbestos-containing material
 - PACM - presumed asbestos-containing material
 - Access. - accessibility
 - nq - not quantified
 - na - not applicable
 - ns - not sampled
 - ref - reference sample
 - F - friable
 - NF - non friable
 - RCA - recommend corrective action
 - BS - bulk sample

Summary of Occurrences of Asbestos-Containing Materials

Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable? Visible?	Access.	ACM Condition	Comments/ Notes
1	Garbage Room	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
1	Laundry Room	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
1	Stairwells	West	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
1	Stairwells	East	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
1	Stairwells	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
1	Unit 102	Washroom	Walls	Ceramic Tile Grout and Mortar / Adhesive	5 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM
1	Unit 102	Hallway, Closet, Washroom, Bedroom and Living Room	Floor	12"x12"Vinyl Floor Tiles - White with Dots	45 sq. m	Ref: 80-BS-05A-Floor Tile	No	4.16% Chrysotile	No Yes	A	good	ACM
1	Unit 102	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Walls and Bulkheads	Drywall Joint-Fill Compound	100 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
2	Corridors	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM

Accessibility Classification

- A - Areas of the building within reach (from floor level) of all building users
- B - Frequently entered maintenance areas within reach of maintenance staff, without the need for a ladder
- C - Areas of the building above 2.4 m where use of a ladder is required to reach the asbestos
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Summary of Occurrences of Asbestos-Containing Materials

Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable? Visible?	Access.	ACM Condition	Comments/ Notes
2	Corridors	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	175 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
2	Elevator Lobby	Walls and Floors	Walls and Floors	Ceramic Tile Grout and Mortar / Adhesive	15 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM
2	Stairwells	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
2	Stairwells	West	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
2	Stairwells	East	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
2	Unit 203	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Floor	12"x12"Vinyl Floor Tiles - White with Dots	45 sq. m	Ref: 80-BS-05A-Floor Tile	No	4.16% Chrysotile	No Yes	A	good	ACM
2	Unit 203	Washroom	Walls	Ceramic Tile Grout and Mortar / Adhesive	5 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM
2	Unit 203	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Walls and Bulkheads	Drywall Joint-Fill Compound	100 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
2	Unit 210	Washroom	Walls	Ceramic Tile Grout and Mortar / Adhesive	5 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM

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2	Unit 210	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Walls and Bulkheads	Drywall Joint-Fill Compound	100 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
2	Unit 210	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Floor	12"x12"Vinyl Floor Tiles - White with Dots	45 sq. m	Ref: 80-BS-05A-Floor Tile	No	4.16% Chrysotile	No Yes	A	good	ACM
3	Corridors	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	175 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
3	Corridors	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
3	Elevator Lobby	Walls and Floors	Walls and Floors	Ceramic Tile Grout and Mortar / Adhesive	15 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM
3	Stairwells	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
3	Stairwells	West	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
3	Stairwells	East	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
3	Unit 304	Washroom	Walls	Ceramic Tile Grout and Mortar / Adhesive	5 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM

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Summary of Occurrences of Asbestos-Containing Materials

Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable? Visible?	Access.	ACM Condition	Comments/ Notes
3	Unit 304	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Walls and Bulkheads	Drywall Joint-Fill Compound	100 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
3	Unit 304	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Floor	12"x12"Vinyl Floor Tiles - White with Dots	45 sq. m	Ref: 80-BS-05A-Floor Tile	No	4.16% Chrysotile	No Yes	A	good	ACM
4	Corridors	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	175 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
4	Corridors	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
4	Elevator Lobby	Walls and Floors	Walls and Floors	Ceramic Tile Grout and Mortar / Adhesive	15 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM
4	Stairwells	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
4	Stairwells	East	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
4	Stairwells	West	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
4	Unit 409	Washroom	Walls	Ceramic Tile Grout and Mortar / Adhesive	5 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM

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Summary of Occurrences of Asbestos-Containing Materials

Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable? Visible?	Access.	ACM Condition	Comments/ Notes
4	Unit 409	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Walls and Bulkheads	Drywall Joint-Fill Compound	100 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
4	Unit 409	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Floor	12"x12"Vinyl Floor Tiles - White with Dots	45 sq. m	Ref: 80-BS-05A-Floor Tile	No	4.16% Chrysotile	No Yes	A	good	ACM
5	Corridors	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	175 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
5	Corridors	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
5	Elevator Lobby	Walls and Floors	Walls and Floors	Ceramic Tile Grout and Mortar / Adhesive	15 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM
5	Stairwells	East	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
5	Stairwells	West	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
5	Stairwells	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
5	Unit 505	Washroom	Walls	Ceramic Tile Grout and Mortar / Adhesive	5 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM

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Level	Room	Specific Location	ACM Location	ACM Type	Estimated Quantity	Sample Number	Original Sample?	Asbestos Content	Friable? Visible?	Access.	ACM Condition	Comments/ Notes
5	Unit 505	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Walls and Bulkheads	Drywall Joint-Fill Compound	100 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
5	Unit 505	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Floor	12"x12"Vinyl Floor Tiles - White with Dots	45 sq. m	Ref: 80-BS-05A-Floor Tile	No	4.16% Chrysotile	No Yes	A	good	ACM
6	Corridors	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	175 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
6	Corridors	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
6	Elevator Lobby	Walls and Floors	Walls and Floors	Ceramic Tile Grout and Mortar / Adhesive	15 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM
6	Stairwells	East	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
6	Stairwells	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
6	Stairwells	West	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM

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6	Unit 607	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Floor	12"x12"Vinyl Floor Tiles - White with Dots	45 sq. m	Ref: 80-BS-05A-Floor Tile	No	4.16% Chrysotile	No Yes	A	good	ACM
6	Unit 607	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Walls and Bulkheads	Drywall Joint-Fill Compound	100 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
6	Unit 607	Washroom	Walls	Ceramic Tile Grout and Mortar / Adhesive	5 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM
7	Corridors	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	175 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
7	Corridors	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
7	Elevator Lobby	Walls and Floors	Walls and Floors	Ceramic Tile Grout and Mortar / Adhesive	15 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM
7	Stairwells	West	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
7	Stairwells	East	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
7	Stairwells	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM

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8	Corridors	Walls and Bulkheads	Walls and Bulkheads	Drywall Joint-Fill Compound	175 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
8	Elevator Lobby	Walls and Floors	Walls and Floors	Ceramic Tile Grout and Mortar / Adhesive	15 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM
8	Stairwells	East	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
8	Stairwells	Doors	Doors	Fire Rated Doors	NQ	NS	No	PACM	No Yes	A	good (PACM)	PACM
8	Stairwells	West	Walls and Bulkheads	Drywall Joint-Fill Compound	30 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
8	Unit 804	Hallway, Closet, Washroom, Bedroom, Living Room and Kitchen	Walls and Bulkheads	Drywall Joint-Fill Compound	100 sq. m	Ref: 80-BS-03A	No	3% Chrysotile	No Yes	A	good	ACM
8	Unit 804	Washroom	Walls	Ceramic Tile Grout and Mortar / Adhesive	5 sq. m	NS	No	PACM	No Yes	A	good (PACM)	PACM
8	Unit 804	Hallway, Closet, Bedroom, Living Room and Kitchen	Floor	12"x12"Vinyl Floor Tiles - White with Dots	45 sq. m	Ref: 80-BS-05A-Floor Tile	No	4.16% Chrysotile	No Yes	A	good	ACM

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Exterior	Exterior	Back Entrance	Door	Exterior Caulking - White	5 m	NS	No	PACM	No	Yes	A	good (PACM)	PACM
Exterior	Exterior	Electrical Room	Door	Exterior Caulking - White	10 m	NS	No	PACM	No	Yes	A	good (PACM)	PACM
Exterior	Exterior	Garbage Room	Door	Exterior Caulking - White	10 m	NS	No	PACM	No	Yes	A	good (PACM)	PACM
Exterior	Exterior	Stairwell	Door	Exterior Caulking - White	10 m	NS	No	PACM	No	Yes	A	good (PACM)	PACM
Exterior	Exterior	Garage Door	Door	Exterior Caulking - White	10 m	NS	No	PACM	No	Yes	A	good (PACM)	PACM
Exterior	Exterior	Walls	Walls	Brick Mortar	NQ	NS	No	PACM	No	Yes	A	good (PACM)	PACM
Roof	Roof	Roofing	Roofing	Roofing Materials	NQ	NS	No	PACM	No	Yes	B	good (PACM)	PACM
Roof	Roof	Roofing	Roofing	Roof Caulking	NQ	NS	No	PACM	No	Yes	B	good (PACM)	PACM

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ASBESTOS BUILDING MATERIALS ASSESSMENT

Appendix D
Selected Site Photographs
February 17, 2017

Appendix D
Selected Site Photographs

ASBESTOS BUILDING MATERIALS ASSESSMENT

Appendix D
Selected Site Photographs
February 17, 2017



Photo 1: Asbestos-containing 12"x"12" vinyl floor tiles – white with dots was observed to be in poor condition (loose tile) in the storage room in the common room.



Photo 2: Presumed to be asbestos-containing ceramic tile grout and mortar/adhesive in the lobby.

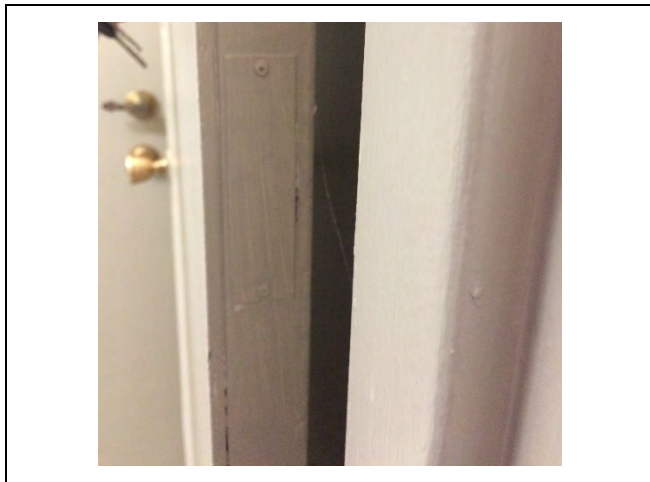


Photo 3: Presumed asbestos-containing fire rated door to the 1st floor stairwell.



Photo 4: Asbestos-containing drywall joint-fill compound in the 8th floor corridor near the elevator lobby.

ASBESTOS BUILDING MATERIALS ASSESSMENT

Appendix D
Selected Site Photographs
February 17, 2017



Photo 5: Presumed asbestos-containing mastic associated with 12"x12" vinyl floor tiles – pink mosaic pattern.



Photo 6: Presumed asbestos-containing brick mortar and exterior door caulking – white (under beige paint) at the back entrance near the elevator door.