# Asbestos Assessment

St. Vincent De Paul
295 Greencedar Drive, Hamilton,
ON, L9C 7M9

Prepared for:

Hamilton-Wentworth Catholic
District School Board
90 Mulberry Street
Hamilton, Ontario, L8N 3R9

August 31, 2023

Pinchin File: 320582.004

| | |
|---|---|
| **Issued to:** | **Hamilton-Wentworth Catholic District School Board** |
| **Issued on:** | **August 31, 2023** |
| **Pinchin File:** | **320582.004** |
| **Issuing Office:** | **Hamilton, ON** |
| **Primary Contact:** | **Emily Balfour, Project Manager, ebalfour@pinchin.com** |

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## EXECUTIVE SUMMARY

Hamilton-Wentworth Catholic District School Board (Client) retained Pinchin Ltd. (Pinchin) to conduct an asbestos building materials assessment of St. Vincent De Paul located at 295 Greencedar Drive, Hamilton, ON, L9C 7M9.

The objectives of the assessment were to document the locations of asbestos building materials, evaluate their condition and develop corrective action plans as required for the purposes of long-term management. The results of this assessment are not intended for construction, renovation, demolition or project tendering purposes.

## SUMMARY OF RECOMMENDATIONS

The following is a summary of significant recommendations; refer to the body of the report for detailed recommendations:

1. Maintain the Asbestos Management Program (AMP)
2. Perform a re-assessment of asbestos materials on an annual basis.
3. Perform a pre-construction assessment and remove all ACM prior to alteration or maintenance work if ACM may be disturbed by the work.
4. Follow appropriate safe work procedures when handling or disturbing asbestos.
5. Sample any presumed ACM prior to alteration or maintenance work if presumed ACM may be disturbed by the work.
6. Update the asbestos inventory report upon completion of any abatement and removal of asbestos-containing materials.

*This Executive Summary is subject to the same standard limitations as contained in the report and must be read in conjunction with the entire report.*

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## APPENDICES

## 1.0 INTRODUCTION AND SCOPE

Hamilton-Wentworth Catholic District School Board (Client) retained Pinchin Ltd. (Pinchin) to conduct an asbestos building materials assessment of St. Vincent De Paul located at 295 Greencedar Drive, Hamilton, ON, L9C 7M9.

Pinchin performed the assessment on July 12, 2023.

The objectives of the assessment were to document the locations of asbestos building materials, evaluate their condition and develop corrective action plans as required. This assessment is only to be used for the purposes of long-term management and routine maintenance. The results of this assessment are not to be used for construction, renovation, demolition, or project tendering purposes.

### 1.1 Scope of Assessment

The assessment was performed to establish the location and type of asbestos building materials incorporated in the structure(s) and its finishes. The **assessed area** consisted of all parts of the building, excluding the roof.

## 2.0 METHODOLOGY

Pinchin conducted a room-by-room assessment (rooms, corridors, service areas, exterior, etc.) to identify the asbestos-containing building materials as defined in the scope.

The assessment was limited to non-intrusive testing. Concealed spaces such as those above solid ceilings and within shafts and pipe chases were accessed via existing access panels only. Demolition of walls, solid ceilings, structural items, interior finishes or exterior building finishes, to determine the presence of concealed materials was not conducted.

For further details on the methodology including test methods, refer to Appendix III.

## 3.0 BACKGROUND INFORMATION

### 3.1 Building Year of Construction and Additions

| Item | Details |
|---|---|
| Year of Construction | 1990 |

### 3.2 Existing Reports

Pinchin previously prepared the following report, which has been reviewed as part of this assessment:

- Asbestos Reassessment Report, St. Vincent De Paul, August 2022, Pinchin File No. 303992.004.

### 3.3 Inaccessible Locations

Inaccessible locations (rooms or areas), if any, are indicated in the Location List Report in Appendix IV. These locations within the assessed area were not accessible to the surveyor and are therefore not included in the report.

## 4.0 FINDINGS

The following section summarizes the findings of the assessment and provides a general description of the asbestos-containing materials (ACM) identified and their locations. For details on approximate quantities, condition, friability, accessibility and locations of asbestos materials; refer to the Asbestos Material Summary Report and All Data Report in Appendix V and VI.

### 4.1 Excluded Asbestos Materials

A number of materials which might contain asbestos were not sampled during this assessment due to limitations in scope and methodology. Where present, these materials are assumed to contain asbestos until otherwise proven by sampling and analysis. These materials are not shown on the drawings in Appendix I. Excluded materials presumed to contain asbestos include:

- Roofing felts and tar, mastics
- Ceramic tile setting compound
- Elevator and lift brakes
- Electrical components
- Mechanical packing, ropes and gaskets
- Vermiculite
- Adhesives and duct mastics
- Caulking and putties
- Fire resistant doors
- Terrazzo
- Ropes and gaskets in cast-iron bell and spigot joints
- Sealants on pipe threads

### 4.2 Summary of Building Materials

This section includes a summary of building materials that have been confirmed asbestos-containing by sample analysis, presumed asbestos-containing by visual identification, or confirmed non-asbestos by sampling or based on the manufacture date and known end of use of asbestos in these products.

The locations of samples from historical assessments performed by Pinchin, have been included on the drawings.

Appendix II presents the asbestos bulk sample analytical results.

| Material and Application | Asbestos Type | Photo |
|---|---|---|
| Pipes are either uninsulated or insulated with non-asbestos fibreglass or elastomeric insulation (Armaflex). | None | |
| Brown duct mastic is present. | None | |
| Ducts are either uninsulated or insulated with non-asbestos fibreglass (foil-faced or canvas). | None | |
| Mechanical equipment is either uninsulated or insulated with non-asbestos fibreglass. | None | |
| All ceiling tiles are presumed to be non-asbestos based on the age of the materials determined from the age of the building. | None | |
| Asbestos in drywall joint compound was banned in Canada in 1980. The building was constructed after 1986 (1980 plus a reasonable non-compliance period based on our experience) and the drywall joint compound is assumed to contain no asbestos. | None | |
| Vinyl floor tiles and mastic present are non-asbestos based on previous sampling. | None (tile)<br>None (mastic) | |
| Gold sink undercoating is present. | Chrysotile |  |
| White sink undercoating is present. | None | |

## 5.0 RECOMMENDATIONS

### 5.1 General

Perform a detailed intrusive assessment prior to maintenance work, building renovation or demolition operations. The assessment should include destructive testing (e.g., coring and/or removal of building finishes and components), and other hazardous materials (lead, mercury, PCBs, mould, etc.) and materials not tested in this study (e.g., roofing materials, caulking, mastics).

### 5.2 Remedial Work

No remedial work is recommended.

### 5.3 On-going Management and Maintenance

The following recommendations are made regarding on-going management and maintenance work involving the asbestos materials identified.

Maintain the Asbestos Management Program (AMP).

Perform a reassessment of asbestos materials on an annual basis.

Remove asbestos-containing materials (ACM) prior to alteration or maintenance work if ACM may be disturbed by the work. Follow appropriate asbestos precautions for the classification of work being performed.

Sample presumed ACM prior to alteration or maintenance work if the presumed ACM may be disturbed by the work.

Update the asbestos inventory report upon completion of any abatement and removal of asbestos-containing materials.

## 6.0 TERMS AND LIMITATIONS

This work was performed subject to the Terms and Limitations presented or referenced in the proposal for this project.

Information provided by Pinchin is intended for Client use only. Pinchin will not provide results or information to any party unless disclosure by Pinchin is required by law. Any use by a third party of reports or documents authored by Pinchin or any reliance by a third party on or decisions made by a third party based on the findings described in said documents, is the sole responsibility of such third parties. Pinchin accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted. No other warranties are implied or expressed.

## 7.0 REFERENCES

The following legislation and documents were referenced in completing the assessment and this report:

1. Asbestos on Construction Projects and in Buildings and Repair Operations, Ontario Regulation 278/05.
2. Designated Substances, Ontario Regulation 490/09.
3. Ministry of the Environment Regulation, R.R.O. 1990 Reg. 347 as amended.

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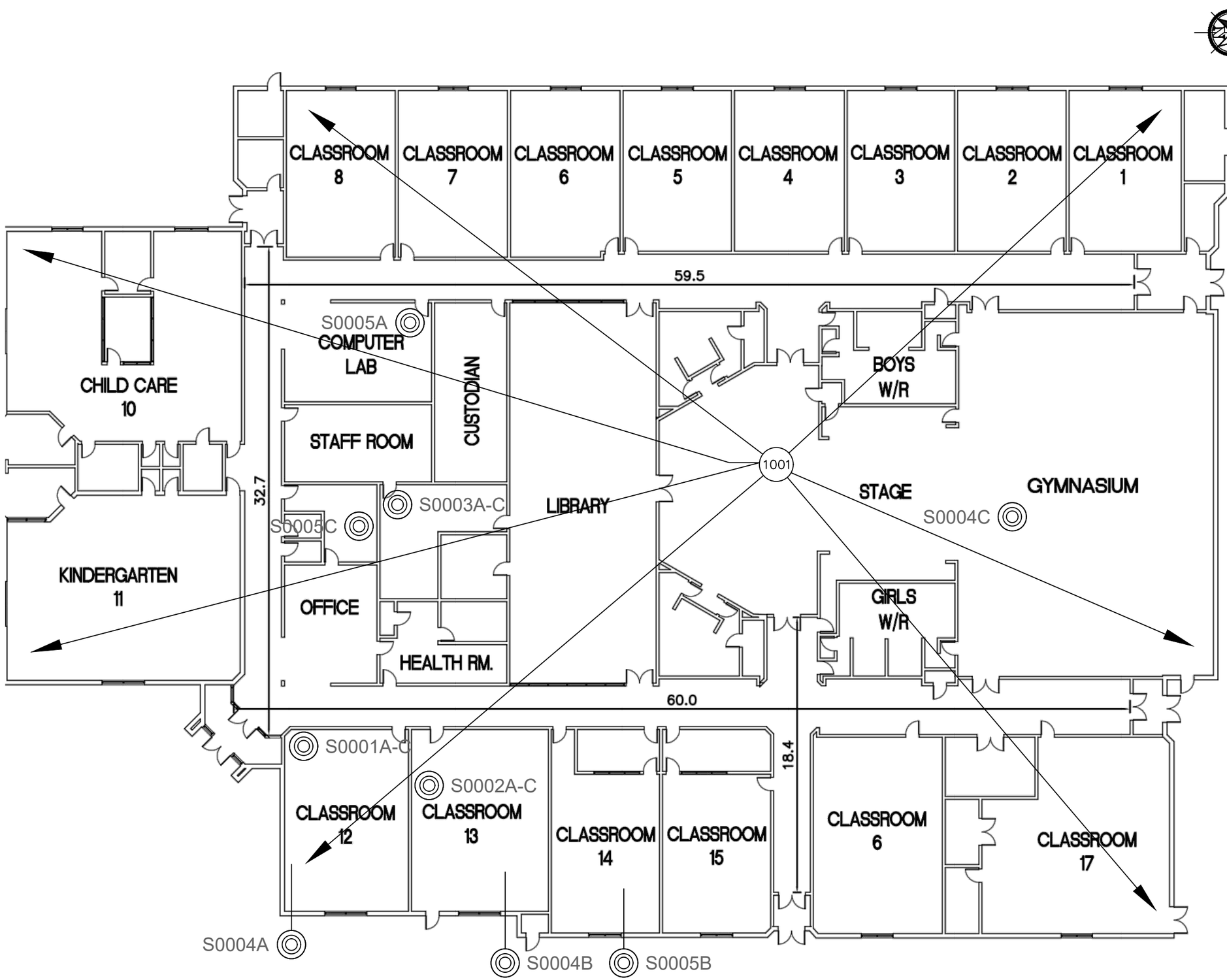
Template: Master Report for Asbestos Assessment, HAZ, July 29, 2021

**APPENDIX I**

**Drawings**




PINCHIN

905-577-6206 www.pinchin.com

LEGEND:

(X) LOCATION NUMBER

ASBESTOS BULK SAMPLE

ASBESTOS-CONTAINING GOLD MASTIC UNDERCOATING IS PRESENT SPORADICALLY ON SINKS WITHIN THE BUILDING.

BASE PLAN PROVIDED BY CLIENT.

CLIENT:

Hamilton-Wentworth Catholic District School Board

*Believing, Achieving, Serving*

LOCATION:

ST. VINCENT DE PAUL
295 GREENCEDAR DRIVE
HAMILTON, ONTARIO

TITLE:

ASBESTOS ASSESSMENT
FLOOR LEVEL 1

| DATE: | PROJECT # : |
|---|---|
| AUGUST 2023 | 320582.004 |
| DRAWN BY: EB | DRAWING: 1 OF 1 |
| CHECKED BY: EB | |
| SCALE: NTS | |

**APPENDIX II**

**Asbestos Analytical Certificates**

# Bulk Asbestos Analysis

**By Polarized Light Microscopy**
**EPA Method: 600/R-93/116 and 600/M4-82-020**

NVLAP Lab Code: 200664-0

**Customer:** Pinchin Ltd.
6-875 Main St West
Suite 200
Hamilton, Ontario L8S 4P9

**Project:** St Vincent de Paul

**Attn:** Leslie Cantar
Emily Balfour

**Lab Order ID:** 51817043
**Analysis ID:** 51817043_PLM
**Date Received:** 7/6/2018
**Date Reported:** 7/14/2018

| Sample ID<br>*Lab Sample ID* | Description<br>*Lab Notes* | Asbestos | Fibrous Components | Non-Fibrous Components | Attributes<br>Treatment |
|---|---|---|---|---|---|
| S0001A<br>*51817043PLM_1* | Mastic, Gold,Sink Undercoating,Loc:1001, Classroom 12 | **3% Chrysotile** | | **97% Other** | Gold<br>Non Fibrous<br>Homogeneous<br>Dissolved |
| S0001B<br>*51817043PLM_2* | Mastic, Gold,Sink Undercoating,Loc:1001, Classroom 12 | **Not Analyzed** | | | |
| S0001C<br>*51817043PLM_3* | Mastic, Gold,Sink Undercoating,Loc:1001, Classroom 12 | **Not Analyzed** | | | |
| S0002A<br>*51817043PLM_4* | Mastic, White,Sink Undercoating,Loc:1001,Classroom 13 | **None Detected** | **10% Cellulose** | **90% Other** | White<br>Non Fibrous<br>Homogeneous<br>Dissolved |
| S0002B<br>*51817043PLM_5* | Mastic, White,Sink Undercoating,Loc:1001,Classroom 13 | **None Detected** | **10% Cellulose** | **90% Other** | White<br>Non Fibrous<br>Homogeneous<br>Dissolved |
| S0002C<br>*51817043PLM_6* | Mastic, White,Sink Undercoating,Loc:1001,Classroom 13 | **None Detected** | **10% Cellulose** | **90% Other** | White<br>Non Fibrous<br>Homogeneous<br>Dissolved |
| S0003A<br>*51817043PLM_7* | Mastic,Brown,Loc:1001,Supply Room at Staff Room and Library | **None Detected** | | **100% Other** | Brown<br>Non Fibrous<br>Homogeneous<br>Dissolved |
| S0003B<br>*51817043PLM_8* | Mastic,Brown,Loc:1001,Supply Room at Staff Room and Library | **None Detected** | | **100% Other** | Brown<br>Non Fibrous<br>Homogeneous<br>Dissolved |

**Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.**

Philip Szabo (21)

**Analyst**

**Approved Signatory**

P-F-002 r15 1/16/2021

# Bulk Asbestos Analysis

**By Polarized Light Microscopy**
**EPA Method: 600/R-93/116 and 600/M4-82-020**

NVLAP Lab Code: 200664-0

**Customer:** Pinchin Ltd.
6-875 Main St West
Suite 200
Hamilton, Ontario L8S 4P9

**Project:** St Vincent de Paul

**Attn:** Leslie Cantar
Emily Balfour

**Lab Order ID:** 51817043
**Analysis ID:** 51817043_PLM
**Date Received:** 7/6/2018
**Date Reported:** 7/14/2018

| Sample ID<br>*Lab Sample ID* | Description<br>*Lab Notes* | Asbestos | Fibrous Components | Non-Fibrous Components | Attributes<br>Treatment |
|---|---|---|---|---|---|
| S0003C | Mastic,Brown,Loc:1001,Supply Room at Staff Room and Library | None Detected | | 100% Other | Brown<br>Non Fibrous<br>Homogeneous |
| *51817043PLM_9* | | | | | Dissolved |
| S0004A - A | Vinyl Floor Tile And Mastic,12"x12" Light Grey Flecks,Classroom 12 | None Detected | | 100% Other | Gray<br>Non Fibrous<br>Homogeneous |
| *51817043PLM_10* | *tile - ashed* | | | | Ashed, Dissolved |
| S0004A - B | Vinyl Floor Tile And Mastic,12"x12" Light Grey Flecks,Classroom 12 | None Detected | | 100% Other | Black<br>Non Fibrous<br>Homogeneous |
| *51817043PLM_16* | *mastic* | | | | Dissolved |
| S0004B - A | Vinyl Floor Tile And Mastic,12"x12" Green Flecks,Loc:1001,Classroom 1 | None Detected | | 100% Other | Green<br>Non Fibrous<br>Homogeneous |
| *51817043PLM_11* | *tile - ashed* | | | | Ashed, Dissolved |
| S0004B - B | Vinyl Floor Tile And Mastic,12"x12" Green Flecks,Loc:1001,Classroom 1 | None Detected | | 100% Other | Black<br>Non Fibrous<br>Homogeneous |
| *51817043PLM_17* | *mastic* | | | | Dissolved |
| S0004C - A | Vinyl Floor Tile And Mastic,12"x12" Taupe And Pink Flecks,Loc:1001,Stage | None Detected | | 100% Other | Beige<br>Non Fibrous<br>Homogeneous |
| *51817043PLM_12* | *tile - ashed* | | | | Ashed, Dissolved |
| S0004C - B | Vinyl Floor Tile And Mastic,12"x12" Taupe And Pink Flecks,Loc:1001,Stage | None Detected | | 100% Other | Yellow<br>Non Fibrous<br>Homogeneous |
| *51817043PLM_18* | *mastic* | | | | Dissolved |
| S0005A - A | Vinyl Floor Tile And Mastic,12" X 12" Purple Flecks,Loc:1001,Computer La | None Detected | | 100% Other | Purple<br>Non Fibrous<br>Homogeneous |
| *51817043PLM_13* | *tile - ashed* | | | | Ashed, Dissolved |



Philip Szabo (21)

**Analyst**

**Approved Signatory**

# Bulk Asbestos Analysis

**By Polarized Light Microscopy**
**EPA Method: 600/R-93/116 and 600/M4-82-020**

NVLAP Lab Code: 200664-0

**Customer:** Pinchin Ltd.
6-875 Main St West
Suite 200
Hamilton, Ontario L8S 4P9

**Project:** St Vincent de Paul

**Attn:** Leslie Cantar
Emily Balfour

**Lab Order ID:** 51817043
**Analysis ID:** 51817043_PLM
**Date Received:** 7/6/2018
**Date Reported:** 7/14/2018

| Sample ID<br>*Lab Sample ID* | Description<br>*Lab Notes* | Asbestos | Fibrous Components | Non-Fibrous Components | Attributes<br>Treatment |
|---|---|---|---|---|---|
| S0005A - B<br>*51817043PLM_19* | Vinyl Floor Tile And Mastic,12" X 12" Purple Flecks,Loc:1001,Computer La<br>*mastic* | None Detected | | 100% Other | Black<br>Non Fibrous<br>Homogeneous<br>Dissolved |
| S0005B - A<br>*51817043PLM_14* | Vinyl Floor Tile And Mastic,12"x12" Pink Flecks,Loc:1001,Classroom 1<br>*tile - ashed* | None Detected | | 100% Other | Pink<br>Non Fibrous<br>Homogeneous<br>Ashed, Dissolved |
| S0005B - B<br>*51817043PLM_20* | Vinyl Floor Tile And Mastic,12"x12" Pink Flecks,Loc:1001,Classroom 1<br>*mastic* | None Detected | | 100% Other | Black<br>Non Fibrous<br>Homogeneous<br>Dissolved |
| S0005C - A<br>*51817043PLM_15* | Vinyl Floor Tile And Mastic,12"x12" Dark Grey Flecks,Loc:1001,Principal's O<br>*tile - ashed* | None Detected | | 100% Other | Gray<br>Non Fibrous<br>Homogeneous<br>Ashed, Dissolved |
| S0005C - B<br>*51817043PLM_21* | Vinyl Floor Tile And Mastic,12"x12" Dark Grey Flecks,Loc:1001,Principal's O<br>*mastic* | None Detected | | 100% Other | Yellow<br>Non Fibrous<br>Homogeneous<br>Dissolved |



Philip Szabo (21)

**Analyst**

**Approved Signatory**

| | | | |
|---|---|---|---|
| **Client:** | Pinchin Ltd. | ***Instructions:*** | *Version 1-15-2012* |
| **Contact:** | Leslie Cantar | *Use Column "B" for your contact info* | |
| **Address:** | 6-875 Main St W, Hamilton, ON | | |
| **Phone:** | 289.237.4294 | *To See an Example Click the* | |
| **Fax:** | 905.577.6207 | *bottom Example Tab.* | |
| **Email:** | lcantar@pinchin.com; ebalfour@pinchin.com | | |
| | | ***12*** | |
| **Project:** | St Vincent de Paul<br>Stop positive on all samples.<br>Perform gravimetric reduction on third vinyl floor tile if first two are ND. | ***Begin Samples with a "<< "above the first sample*** | *Scientific Analytical* |
| | | ***and end with a ">>" below the last sample.*** | |
| **Client Notes:** | 224334 | *Only Enter your data on the first sheet "Sheet1"* | *Institute* |
| **P.O. #.** | 224334 St. Vincent | *Note: Data 1 and Data 2 are optional* | ***4604 Dundas Dr.*** |
| **Date Submitted:** | 07-04-2018 | *fields that do not show up on the official report, however they will be included* | ***Greensboro, NC 27407*** |
| **Analysis:** | PLM BULK EPA 600 | *in the electronic data returned to you* | ***Phone: 336.292.3888*** |
| **TurnAroundTime:** | 6+ Days | *to facilitate your reintegration of the report data.* | ***Fax: 336.292.3313*** |
| | | | ***Email: lab@sailab.com*** |

5181043 revised

| Sample Number | Data 1 (Lab use only) | Sample Description | Data 2 (Lab use only) |
|---|---|---|---|
| << | | | |
| S0001A | | Mastic, Gold,Sink Undercoating,Loc:1001, Classroom 12 | |
| S0001B | | Mastic, Gold,Sink Undercoating,Loc:1001, Classroom 12 | |
| S0001C | | Mastic, Gold,Sink Undercoating,Loc:1001, Classroom 12 | |
| S0002A | | Mastic, White,Sink Undercoating,Loc:1001,Classroom 13 | |
| S0002B | | Mastic, White,Sink Undercoating,Loc:1001,Classroom 13 | |
| S0002C | | Mastic, White,Sink Undercoating,Loc:1001,Classroom 13 | |
| S0003A | | Mastic,Brown,Loc:1001,Supply Room at Staff Room and Library | |
| S0003B | | Mastic,Brown,Loc:1001,Supply Room at Staff Room and Library | |
| S0003C | | Mastic,Brown,Loc:1001,Supply Room at Staff Room and Library | |
| S0004A | | Vinyl Floor Tile And Mastic,12"x12" Light Grey Flecks,Classroom 12 | |
| S0004B | | Vinyl Floor Tile And Mastic,12"x12" Green Flecks,Loc:1001,Classroom 13 | |
| S0004C | | Vinyl Floor Tile And Mastic,12"x12" Taupe And Pink Flecks,Loc:1001,Stage | |
| S0005A | | Vinyl Floor Tile And Mastic,12" X 12" Purple Flecks,Loc:1001,Computer Lab | |
| S0005B | | Vinyl Floor Tile And Mastic,12"x12" Pink Flecks,Loc:1001,Classroom 14 | |
| S0005C | | Vinyl Floor Tile And Mastic,12"x12" Dark Grey Flecks,Loc:1001,Principal's Office | |
| >> | | | |

Accepted ☑

Rejected ☐

Mrs. Fuller

7:10 3:00 P

# APPENDIX III
# Methodology

## 1.0 GENERAL

An inspection was conducted to identify the asbestos-containing materials (ACM) incorporated in the structure and its finishes as defined by the scope of work.

Information regarding the location and condition of ACM encountered and visually estimated quantities were recorded. The locations of any samples collected were recorded on small-scale plans. As-built drawings and previous reports were referenced where provided.

Sample collection (where performed) was conducted in accordance with our Standard Operating Procedures.

The inspection for asbestos included friable and non-friable asbestos-containing materials (ACM). A friable material is a material that when dry can be crumbled, pulverized or powdered by hand pressure.

Where samples were collected, a separate set of samples was collected of each type of homogenous material suspected to contain asbestos. A homogenous material is defined by the US EPA as material that is uniform in texture and appearance, was installed at one time, and is unlikely to consist of more than one type or formulation of material. The homogeneous materials were determined by visual examination and available information on the phases of construction and prior renovations.

Where samples were collected, samples were collected at a rate that is in compliance with the requirements of local regulations and guidelines. The sampling strategy was also based on known ban dates and phase out dates of the use of asbestos; sampling of certain building materials is not conducted after specific construction dates. In addition, to be conservative, several years past these dates are added to account for some uncertainty in the exact start / finish date of construction and associated usage of ACM. In some cases, manufactured products such as asbestos cement pipe were visually identified without sample confirmation.

Where samples were collected, the asbestos analysis was completed using a stop-positive approach. Only one result meeting the regulated criteria was required to determine that a material is asbestos-containing, but all samples must be analyzed to conclusively determine that a material is non-asbestos. The laboratory stopped analyzing samples from a homogeneous material once a result equal to or greater than the regulated criteria is detected in any of the samples of that material. All samples of a homogeneous material were analyzed if no asbestos is detected. In some cases, all samples were analyzed in the sample set regardless of result.

Where samples were collected, the analysis was performed in accordance with Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, July 1993.

Where samples were collected, analytical results were compared to the following criteria.

| Jurisdiction* | Friable | Non-Friable |
|---|---|---|
| Ontario | 0.5% | 0.5% |

Where building materials are described in the report as “non-asbestos” or “does not contain asbestos”, this means that either no asbestos was detected by the analytical method utilized in any of the multiple samples or, if detected, it is below the lower limit of an asbestos-containing material in the applicable regulation. Additionally, these terms are used for materials which historically are known to not include asbestos in their manufacturing.

Asbestos materials were evaluated in order to make recommendations regarding remedial work. The priority for remedial action was based on several factors:

- Friability (friable or non-friable);
- Condition (good, fair, poor, debris);
- Accessibility (ranking from accessible to all building users to inaccessible);
- Visibility (whether the material is obscured by other building components).
- Efficiency of the work (for example, if damaged ACM is being removed in an area, it may be most practical to remove all ACM in the area even if it is in good condition).

For a complete description of the Evaluation Criteria and Basis of Recommendations, refer to Annex A.

# METHODOLOGY ANNEX A EVALUATION CRITERIA

## EVALUATION CRITERIA AND BASIS OF RECOMMENDATIONS

The detailed asbestos assessment provides information regarding the location, condition, accessibility and friability of the asbestos-containing materials (ACM). In order to make recommendations for compliance with current regulations, Pinchin developed the following criteria.

## EVALUATION OF CONDITION

### Friable Sprayed or Trowelled Fireproofing, Thermal Insulation and Texture Finishes (Surfacing Materials)

To evaluate the condition of ACM sprayed or trowelled on fireproofing, sprayed or trowelled thermal insulation (non-mechanical), or texture, decorative or acoustic finishes, the following criteria are applied:

| | |
|---|---|
| **Good** | Surface of material shows no significant signs of damage, deterioration or delamination. Good condition includes unencapsulated or unpainted fireproofing or texture finishes, where no or limited delamination or damage is observed, or encapsulated fireproofing or texture finishes where the encapsulant or paint has been applied after the damage or fallout occurred. |
| **Poor** | A sprayed material that shows signs of significant damage or is significantly delaminating or deteriorating. This may be limited to surface delamination or some portion of the substrate may be exposed. |

In Locations where damage exists in isolated areas, both good and poor condition may be applicable. The extent of each condition will be recorded. Fair condition is not utilized in the evaluation of ACM sprayed or trowelled fireproofing, sprayed or trowelled thermal insulation (non-mechanical), or texture, decorative or acoustic finishes.

The evaluation of the above products above ceilings may be limited by the number of observations and by building components such as ducts or full height walls that obstruct the above ceiling observations.

### Friable Mechanical or Thermal System Insulation (TSI)

To evaluate the condition of mechanical insulation on vessels, boilers, breeching, ducts, pipes, fan units, equipment etc. the following criteria are applied:

| | |
|---|---|
| **Good** | Insulation is completely covered in jacketing and exhibits no evidence of damage or deterioration. No insulation is exposed. Includes conditions where the jacketing has minor damage (i.e. scuffs or stains), but the jacketing is not penetrated. |
| **Fair** | Minor penetrating damage to jacketed insulation (cuts, tears, nicks, deterioration or delamination) or undamaged insulation that has never been jacketed. Insulation is exposed but not showing surface disintegration. The extent of missing insulation ranges from minor to none. Damage can be repaired. |

| | |
|---|---|
| **Poor** | Original insulation jacket is missing, damaged, deteriorated or delaminated. Insulation is exposed and significant areas have been dislodged. Damage cannot be readily repaired. Includes components where insulation may have been removed incompletely. |

The evaluation of mechanical insulation may be limited by the number of observations made and building components such as ducts or full height walls that obstruct observations. It is often not possible to observe each foot of mechanical insulation from all angles.

### Potentially Friable Materials and Miscellaneous Friable Materials

Potentially friable ACM are products that are basically non-friable while in place but have the potential to generate friable dust upon removal or if significantly disturbed without appropriate procedures. These products may become friable if damaged. Potentially friable materials include materials such as acoustic ceiling tiles and plaster. To evaluate the condition of potentially friable materials, the following criteria are applied:

| | |
|---|---|
| **Good** | No significant damage or deterioration. Still serving its intended use as a building material or finish. |
| **Fair** | Showing signs of some cracking or breakage, but is not deteriorating (e.g. cracked plaster, broken but in place ceiling tile, missing tile or section of plaster etc.). The condition is such that it is still serving its intended use as a building material or finish but may require repair for mainly cosmetic purposes. |
| **Poor** | Significant deterioration or breaking apart of the material. Material has deteriorated to the point it is not serving its intended use as building material or finish. Material has deteriorated to a point it has become friable. Normally potentially friable ACM in Poor condition is not repairable and requires at least localized removal and replacement. |

### Non-Friable Materials

Non-friable ACM cover a wide range of products with a wide variation in their tendency to release dust or asbestos fibres to the air. Many of these materials, (particularly where the matrix is an unweathered bitumen, asphalt or tar material) do not release fibres except in very unusual circumstances or during significant disturbance (e.g. use of abrasive power tools). Others with a cementitious matrix (asbestos-cement products) can more readily release dust due to abrasion, demolition, weathering, etc. The potential for asbestos release from non-friable ACM is always lower than from friable ACM. To evaluate the condition of non-friable Materials, the following criteria are applied:

| | |
|---|---|
| **Good** | No significant damage or deterioration. Still serving its intended use as a building material or finish. |

| | |
|---|---|
| **Fair** | Showing signs of some cracking or breakage but is not deteriorating (e.g. cracked vinyl floor tile, missing piece of tile or transite, etc.). The condition is such that it is still serving its intended use as a building material or finish but may require repair for mainly cosmetic purposes. |
| **Poor** | Significant deterioration or breaking apart of the material to the point at which it cannot be repaired, and it will require at least local removal. Material has deteriorated to the point it is not serving its intended use as building material or finish. Material may have deteriorated to a point where traffic or disturbance may cause it to become friable. |

## Evaluation of ACM Debris

The identification of the exact location or presence of debris on the top of ceiling tiles is limited by the number of observations made and the presence of building components such as ducts or full height walls that obstruct observations.

The presence of fallen or dislodged ACM is noted separately from the ACM source and is referred to as Debris. Debris may be friable if from a friable ACM source or a badly deteriorated non-friable ACM source. Debris may also be non-friable (such as fallen pieces of transite sheet or mastic fittings, or broken, dislodged floor tiles).

| | |
|---|---|
| **Debris** | Debris may be friable or non-friable but is always identified as debris. |

## Evaluation of Presumed Asbestos-Containing Material (PACM)

Presumed asbestos-containing materials (PACM), are building materials that may contain asbestos but were not sampled or analyzed due to inaccessibility or the need to perform destructive testing to obtain a reasonable sample set. Evaluation of these materials is based on the assumption that these PACM are asbestos-containing.

A list of PACM is provided in the report and they are generally not included in the detailed room by room reports. Typically, they are excluded because they are inaccessible or present in very small quantities. If PACM are evaluated, Pinchin uses the criteria that correspond with the type (and friability) of the material listed above.

## EVALUATION OF ACCESSIBILITY

The accessibility of building materials known or suspected of being ACM is rated according to the following criteria:

| | |
|---|---|
| **Access (A)** | Common areas of the building within reach of all building users (approximately 8 '-9' from floor or standard ceiling height). Includes other areas where occupant activities may result in disturbance of material that is not normally within reach from floor level, but may be disturbed by common activities (e.g. gymnasiums, workshops, warehouses) |
| **Access (B)** | Areas of the building accessed primarily by Maintenance/Caretaking/Janitorial Staff and within reach without use of a ladder. Includes areas within reach in Boiler Rooms, Electrical Rooms, Janitors Closets, Elevator Rooms, Mechanical Rooms, etc. Includes materials within reach from fixed ladders or catwalks, mezzanines, and accessible pipe chases. |
| **Access (C) and Visible** | Areas of the building above 8' - 9' where use of a ladder or scaffold is required to reach the ACM. Only includes ACM that are visible to view without the removal or opening of other building components such as ceiling tiles or service access panels. Visible column on HMIS sheets will say YES. |
| **Access (C) and not Visible** | Areas of the building above 8' - 9' where use of a ladder or scaffold is required to reach the ACM. Includes ACM that are not visible to view and require the removal of a building component to see, such as ceilings tiles or access panels to view and access. Includes rarely entered crawl spaces, attic spaces, etc. Observations will be limited to the extent visible from the access points. Visible column on HMIS sheets will say NO. |
| **Access (D)** | Areas of the building behind inaccessible solid ceiling systems, walls or equipment etc. where demolition of the ceiling, wall or equipment etc. is required to reach the ACM. Material inaccessible due to height or location or is only accessed under unusual situations. Evaluation of condition and extent of ACM is limited or impossible, depending on the surveyor's ability to visually examine materials in Access D. |

## ACTION MATRIX AND DEFINITIONS

Pinchin's evaluation of the viability of a specific asbestos control option is based on the consideration of the friability, condition, accessibility and visibility of a material. The logic used is that damaged ACM located in an area frequently accessed by all building occupants is of a higher priority than damaged ACM located in an infrequently accessed service area. The action matrix considers the potential for fibre release (primarily from friable ACM) and the possible concerns from regulatory bodies and many building occupants to all damaged ACM (including non-friable).

In any building with asbestos, many current regulations require an Asbestos Management Program be implemented. Depending on the condition and the accessibility, more active measures such as repair or removal may be recommended. The following matrix provides guidance for recommended Actions in the absence of renovation or demolition. In the event of construction or maintenance activity which will disturb ACM more aggressive control or removal will be required.

## Action Matrix

The following tables outline the action decisions based on the relationship of assessed factors. Table I applies to friable ACM. Table II applies to non-friable ACM.

**Table I Decision Matrix for Friable ACM**

| | Condition | | | |
|---|---|---|---|---|
| **Access** | **Good** | **Fair** | **Poor** | **Debris** |
| **(A)** | Action 5[1] | Action 5[2] | Action 3 | Action 1 |
| **(B)** | Action 7 | Action 6[3] | Action 3 | Action 1 |
| **(C) Visible** | Action 7 | Action 6 | Action 3 | Action 2 |
| **(C) Not Visible** | Action 7 | Action 7 | Action 4 | Action 2 |
| **(D)** | Action 7 | Action 7 | Action 7 | Action 7 |

**Table II Decision Matrix for Potentially Friable and Non-Friable ACM**

| | Condition | | | |
|---|---|---|---|---|
| **Access** | **Good** | **Fair** | **Poor** | **Debris** |
| **(A)** | Action 7 | Action 7[4] | Action 3 | Action 1 |
| **(B)** | Action 7 | Action 7 | Action 3 | Action 1 |
| **(C) Visible** | Action 7 | Action 7 | Action 4 | Action 2 |
| **(C) Not Visible** | Action 7 | Action 7 | Action 4 | Action 2 |
| **(D)** | Action 7 | Action 7 | Action 7 | Action 7 |

## Action Definitions

The following are the definitions in the Action Matrix Table presented above:

| **Action Definitions** | |
|---|---|
| **Action 1** | Clean-Up of ACM Debris<br>Restrict access that is likely to cause a disturbance of the ACM Debris and clean up ACM Debris. Utilize appropriate asbestos precautions. |

[1] If friable ACM in access (A)/Good condition is not proactively removed Action 7 (Manage) is recommended.
[2] If friable ACM in access (A)/Fair condition is not proactively removed repair is recommended.
[3] If friable ACM in access (B)/Fair condition is likely to be disturbed after repair proactive removal is recommended.
[4] Action 7 is recommended for all non-friable ACM in Fair condition however some clients may wish to repair or take some action primarily for cosmetic reasons

| Action Definitions | |
|---|---|
| **Action 2** | Precautions for Access Which may Disturb ACM Debris<br>Use appropriate means to isolate the debris or to limit entry to the area which may disturb the material. At locations where ACM Debris can remain in place in lieu of removal or clean-up (e.g. Debris on top of ceiling tiles or behind lockable door), Utilize appropriate asbestos precautions to enter the area if this will disturb debris. The precautions will be required until the ACM Debris has been cleaned up. |
| **Action 3** | ACM Removal<br>Remove ACM. Utilize asbestos procedures appropriate to the scope of the removal work. Until it is removed, restrict access to the material so it is not disturbed. |
| **Action 4** | Precautions for Work Which may Disturb ACM in Poor Condition. Utilize appropriate asbestos precautions if ACM may be disturbed by work on or near ACM. This does not require restricting access to the area, only control of work which may contact or disturb the ACM. Removal is the only viable option if work will disturb ACM. |
| **Action 5** | Proactive ACM Removal<br>Remove friable ACM where the presence of friable asbestos in Good condition is not desirable. If friable ACM in Fair condition is not removed, then Repair friable ACM. |
| **Action 6** | ACM Repair<br>Repair friable ACM in Fair condition which is not likely to be damaged again or disturbed by normal use of the area or room. Pinchin recommends proactive removal if friable ACM is likely to be damaged or disturbed during normal use of the area or room |
| **Action 7** | Asbestos Management Program with Routine Surveillance Implement an Asbestos Management Program, including routine surveillance of ACM. Reassess materials regularly (typically once per year). |

**APPENDIX IV**

**Location List**

HMIS
HAZARDOUS MATERIALS INVENTORY SYSTEM

# LOCATIONS LIST

PINCHIN
1.855.PINCHIN www.pinchin.com

**Client:Hamilton-Wentworth Catholic District Sch**
**Site: 295 Greencedar Drive, Hamilton, ON**
**Building Name: St. Vincent de Paul**
**Survey Date: 2018-07-04**
**Last Re-Assessment: 2023-07-12**
**Building Phases: A: 1990**

| Location No. | Name or Description | Area ft² | Floor No. | Bldg. Phase | Notes |
|---|---|---|---|---|---|
| 0 | Presumed Asbestos-Containing Materials | 0 | 0 | A | Where present, these materials are assumed to contain asbestos until otherwise proven by sampling and analysis. |
| 1001 | Entire Building | 0 | | A | |

**APPENDIX V**

**Summary Report / Sample Log**

HMIS
HAZARDOUS MATERIALS INVENTORY SYSTEM

# HAZARDOUS MATERIALS SUMMARY / SAMPLE LOG

PINCHIN
1.855.PINCHIN www.pinchin.com

**Client:Hamilton-Wentworth Catholic District Sch** **Site: 295 Greencedar Drive, Hamilton, ON** **Building Name: St. Vincent de Paul** **Survey Date: 2018-07-04**

| HAZMAT | Sample No | System/Component/Material/Sample Description | Locations | Bldg. Phase | LF | SF | EA | % | Type | Positive | Friability |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Asbestos | S0001 | Other \| Sink \| Mastic, Gold \| Sink Undercoating | 1001 | A | 0 | 0 | 0 | 100 | Chrysotile | Yes | NF |
| Asbestos | S0002 | Other \| \| Mastic, White \| Sink Undercoating | 1001 | A | 0 | 0 | 0 | 100 | None Detected | No | |
| Asbestos | S0003 | Duct \| \| Mastic \| Brown | 1001 | A | 0 | 0 | 0 | 100 | None Detected | No | |
| Asbestos | S0004 A | Floor \| \| Vinyl Floor Tile And Mastic \| 12"x12" Light Grey Flecks, Green Flecks, Taupe And Pink Flecks | 1001 | A | 0 | 0 | 0 | 100 | None Detected | No | |
| Asbestos | S0005 | Floor \| \| Vinyl Floor Tile And Mastic \| 12"x12" Purple Flecks, Pink Flecks, Dark Grey Flecks | 1001 | A | 0 | 0 | 0 | 100 | None Detected | No | |
| Asbestos | V9500 | Other \| \| N/a \| Roofing Tars And Mastics, Ceramic Tile Setting Compound, Elevator And Lift Brakes, Electrical Components, Mechanical Packing, Ropes, And Gaskets, Vermiculite, Adhesives And Duct Mastics, Caulking And Putties, Terrazzo, Sealants On Pipe Threads | 0 | A | 0 | 0 | 0 | 100 | Presumed Asbestos | Yes | NF |
| Asbestos | V0000 | Ceiling \| Acoustic Tile \| Ceiling Tiles (lay-in) \| All (1990 Construction) | 1001 | A | 0 | 0 | 0 | 100 | Non Asbestos | No | |
| Asbestos | V0000 | Floor \| \| Vinyl Floor Tile And Mastic \| 12"x12" Dark Grey Flecks (sample S0005c) | 1001 | A | 0 | 0 | 0 | 100 | Non Asbestos | No | |
| Asbestos | V0000 | Floor \| \| Vinyl Floor Tile And Mastic \| 12"x12" Green Flecks (sample S0004b) | 1001 | A | 0 | 0 | 0 | 100 | Non Asbestos | No | |
| Asbestos | V0000 | Floor \| \| Vinyl Floor Tile And Mastic \| 12"x12" Pink Flecks (sample S0005b) | 1001 | A | 0 | 0 | 0 | 100 | Non Asbestos | No | |
| Asbestos | V0000 | Floor \| \| Vinyl Floor Tile And Mastic \| 12"x12" Taupe And Pink Flecks (sample S0004c) | 1001 | A | 0 | 0 | 0 | 100 | Non Asbestos | No | |
| Asbestos | V0000 | Wall \| \| Drywall And Joint Compound \| (1990 Construction) | 1001 | A | 0 | 0 | 0 | 100 | Non Asbestos | No | |

# Legend:

| Sample number | |
|---|---|
| S#### | Asbestos sample collected |
| L#### | Paint sample collected |
| P#### | PCB sample collected |
| M#### | Mould sample collected |
| V#### | Material visually similar to numbered sample collected |
| V0000 | Known non Hazardous Material |
| V9000 | Material is visually identified as Hazardous Material |
| V9500 | Material is presumed to be Hazardous Material |
| [Loc. No.] | Abated Material |

| Units | |
|---|---|
| SF | Square feet |
| LF | Linear feet |
| EA | Each |
| % | Percentage |

| | |
|---|---|
| NF | Non Friable material. |
| F | Friable material |
| PF | Potentially Friable material |

**APPENDIX VI**

**HMIS All Data Report**

HMIS
HAZARDOUS MATERIALS INVENTORY SYSTEM

# ALL DATA REPORT

PINCHIN
1.855.PINCHIN www.pinchin.com

**Client: Hamilton-Wentworth Catholic District Sch** **Site: Elementary** **Building Name: St. Vincent de Paul**
**Location: #0 : Presumed Asbestos-Containing Materials** **Floor: 0** **Room #:** **Area (sqft): 0**
**Survey Date: 2018-07-04** **Last Re-Assessment: 2023-07-12**

| ASBESTOS | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| System | Component | Material | Item | Covering | A* | V* | AP* | Good | Fair | Poor | Unit | Sample | Asbestos Type | Amount | Hazard | Friable |
| Other | | N/A, Roofing tars and mastics, Ceramic tile setting compound, Elevator and lift brakes, Electrical components, Mechanical packing, ropes, and gaskets, Vermiculite, Adhesives and duct mastics, Caulking and putties, Terrazzo, Sealants on pipe threads | | | D | N | | 100(7) | | | % | V9500 | Presumed Asbestos | | Presumed Asbestos | NF |

Where present, these materials are assumed to contain asbestos until otherwise proven by sampling and analysis.

**Client: Hamilton-Wentworth Catholic District Sch** **Site: Elementary** **Building Name: St. Vincent de Paul**
**Location: #1001 : Entire Building** **Floor:** **Room #:** **Area (sqft): 0**
**Survey Date: 2018-07-04** **Last Re-Assessment: 2023-07-12**

| ASBESTOS | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| System | Component | Material | Item | Covering | A* | V* | AP* | Good | Fair | Poor | Unit | Sample | Asbestos Type | Amount | Hazard | Friable |
| Ceiling | Acoustic Tile | Ceiling Tiles (lay-in), All (1990 construction) | | | C | Y | | 100 | | | % | V0000 | Non-Asbestos | | None | |
| Duct | | Mastic, Brown | | | C | N | | 100 | | | % | S0003 | None Detected | N.D. | None | |
| Floor | | Concrete (poured) | | | A | Y | | | | | | | | | | |
| Floor | | Vinyl Floor Tile and Mastic, 12"x12" light grey flecks | | | A | Y | | 100 | | | % | S0004A | None Detected | N.D. | None | |
| Floor | | Vinyl Floor Tile and Mastic, 12"x12" pink flecks (sample S0005B) | | | A | Y | | 100 | | | % | V0000 | Non-Asbestos | | None | |
| Floor | | Vinyl Floor Tile and Mastic, 12"x12" taupe and pink flecks (sample S0004C) | | | A | Y | | 100 | | | % | V0000 | Non-Asbestos | | None | |
| Floor | | Vinyl Floor Tile and Mastic, 12"x12" green flecks (sample S0004B) | | | A | Y | | 100 | | | % | V0000 | Non-Asbestos | | None | |
| Floor | | Vinyl Floor Tile and Mastic, 12"x12" dark grey flecks (sample S0005C) | | | A | Y | | 100 | | | % | V0000 | Non-Asbestos | | None | |
| Floor | | Vinyl Floor Tile and Mastic, 12" x 12" purple flecks | | | A | Y | | 100 | | | % | S0005 | None Detected | N.D. | None | |
| Floor | | Carpet | | | A | Y | | | | | | | | | | |
| Floor | | Terrazzo | | | A | Y | | | | | | | | | | |
| Floor | | Laminate | | | A | Y | | | | | | | | | | |
| Other | | Mastic, White, Sink undercoating | | | A | Y | | 100 | | | % | S0002 | None Detected | N.D. | None | |
| Other[1] | Sink | Mastic, Gold, Sink undercoating | | | A | Y | | 100(7) | | | % | S0001 | Chrysotile | 0.5-5% | Confirmed Asbestos | NF |
| Piping | | Fibreglass | | | C | Y | | | | | | | | | | |
| Piping | Rain Water Leader | Metal | | Fibreglass | A | Y | | | | | | | | | | |
| Piping | Rain Water Leader | Metal | | Fibreglass | C | Y | | | | | | | | | | |
| Structure | | Steel | | | C | Y | | | | | | | | | | |

| ASBESTOS | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| System | Component | Material | Item | Covering | A* | V* | AP* | Good | Fair | Poor | Unit | Sample | Asbestos Type | Amount | Hazard | Friable |
| Wall | | Drywall and joint compound, (1990 construction) | | | A | Y | | 100 | | | % | V0000 | Non-Asbestos | | None | |
| Wall | | Masonry | | Paint | A | Y | | | | | | | | | | |
| Wall | | Ceramic Tiles | | | A | Y | | | | | | | | | | |
| Wall | | Glass | | | A | Y | | | | | | | | | | |

1 - Classrooms 12 and 13

# Legend:

| Sample number | |
|---|---|
| S#### | Asbestos sample collected |
| V#### | Material visually similar to numbered sample collected |
| V0000 | Known non-asbestos material |
| V9000 | Visually identified as an asbestos material |
| V9500 | Material is presumed to be an asbestos material |

| Units | |
|---|---|
| SF | Square feet |
| LF | Linear feet |
| EA | Each |
| % | Percentage |

| Other | |
|---|---|
| A | Access |
| V | Visible |
| AP | Air Plenum |
| F | Friable material |
| NF | Non Friable material |
| PF | Potentially Friable material |

| Access | |
|---|---|
| A | Accessible to all building occupants |
| B | Accessible to maintenance and operations staff without a ladder |
| C | Accessible to maintenance and operations staff with a ladder. Also rarely entered, locked areas |
| D | Not normally accessible |

| Condition | |
|---|---|
| Good | No visible damage or deterioration |
| Fair | Minor, repairable damage, cracking, delamination or deterioration |
| Poor | Irreparable damage or deterioration with exposed and missing material |

| Visible | |
|---|---|
| Y | The material is visible when standing on the floor of the room, without the removal or opening of other building components (e.g. ceiling tiles or access panels). |
| N | The material is not visible to view when standing on the floor of the room and requires the removal of a building component (e.g. ceilings tiles or access panels) to view and access. Includes rarely entered crawlspaces, attic spaces, etc. Observations will be limited to the extent visible from the access points. |

| Air Plenum | |
|---|---|
| Yes or No | The material is in a return air plenum or in a direct airstream or there is evidence of air erosion (e.g. duct for heating or cooling blowing directly on or across an ACM). This field is only completed where Air Plenum consideration is required by regulation. |

| Colour Coding | |
|---|---|
| | The material is known to contain regulated concentrations of asbestos; either by analytical results or visible identification (use of the V9000 code). |
| | The material is presumed to contain asbestos; based on visual appearances; typically a material known to historically contain asbestos; however, not sampled due to limited access or the destructive nature of the sampling. |

| Action | | | | | |
|---|---|---|---|---|---|
| (1) | Clean up of ACM Debris | (2) | Precautions for Access Which may Disturb ACM Debris | (3) | ACM removal |
| (4) | Precautions for Work Which may Disturb ACM in Poor Condition | (5) | Proactive ACM removal (Minimum repair required for fair condition) | (6) | ACM repair |
| (7) | Management program and surveillance | | | | |