

**Hazardous Building Materials Assessment  
Front of Yonge Public School  
1504 County Road 2  
Mallorytown, Ontario**



Prepared for:  
Upper Canada District School Board  
225 Central Avenue West  
Brockville, Ontario, K6V 5X1

**Attention: Mr. Terry Closs**

February 1, 2011

Pinchin File 63221

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## EXECUTIVE SUMMARY

Pinchin Environmental Ltd. (Pinchin) was retained by the Upper Canada District School Board (UCDSB, Client) to conduct an assessment of hazardous building materials in the Front of Yonge Public School located at 1504 County Road 2 in Mallorytown, Ontario.

The assessed area included all parts of the building.

### Summary of Findings

Hazardous materials were confirmed to be present as follows:

#### Asbestos

- Friable asbestos-containing texture finishes are present on the upper portions of the walls in the gymnasium and stage (Locations 11 and 13);
- Non-friable asbestos-containing drywall joint compound is present in isolated areas throughout the building;
- Non-friable transite board is present as window panels and behind radiators around the interior perimeter of the building. The transite panels are concealed behind millwork, wall coverings, and above ceiling tiles;
- Non-friable asbestos-containing caulking is present around exterior windows and doors around the exterior perimeter of the building (Location 36); and
- Non-friable presumed asbestos-containing roofing is present on the building.

#### Lead

- Elevated levels of lead, ranging from 2.00 mg/cm<sup>2</sup> to 2.70 mg/cm<sup>2</sup> were detected in the white paint on the wallboard partitions in the classrooms throughout the building;
- Low levels of lead, ranging from 0.04 mg/cm<sup>2</sup> to 0.70 mg/cm<sup>2</sup>, were detected in purple painted texture finished walls, in the red and orange painted wood doors and in the white painted metal door frames present throughout the building;
- Lead may be present in solder throughout the building; and
- Back-up emergency lights, present throughout the building, are powered with lead-acid batteries.

#### Mercury

- Mercury vapour is present in all fluorescent lamps; and
- Mercury is present as a liquid in thermostats.

#### Silica

- Free crystalline silica (common construction sand) is present in concrete, mortar, brick, masonry, ceramics, etc., where present in the building.

### **PCBs**

- The building has not been comprehensively re-lamped with new energy efficient light ballasts and lamps, and as such, a percentage of light ballasts will be pre-1978 and contain PCB's.

### **Mould**

- Suspect mould growth or water staining was not observed during the assessment.

## **Summary of Recommendations**

### **Asbestos**

- All asbestos-containing materials were noted in good condition at the time of the assessment and as such, no remedial work is required at this time;
- We recommend from practical experience that ACM be removed if it may be disturbed by maintenance, construction or renovation activities. Refer to recommendations section for procedures required when disturbing or removing hazardous building materials; and
- Sample all materials excluded from sampling or assumed to contain asbestos immediately prior to removal where required.

### **Lead**

- Remedial action is not required at this time; and
- Construction disturbance of lead-containing products may result in excessive exposure to lead. Cutting, grinding, drilling, removing stripping or demolition of materials containing or coated with lead should be completed only with proper respiratory protection and other worker safety precautions as outlined in the Ministry of Labour Guideline – Lead on Construction Projects, 2004.

### **Mercury**

- Remedial action is not required at this time;
- Avoid direct skin contact with mercury materials and avoid inhalation of mercury vapour. Avoid breaking lamps. If disposed of, waste lamps should be treated as likely hazardous waste, due to mercury content. Pinchin recommends treatment of fluorescent lamp waste to reclaim mercury; and
- Recycle all mercury containing materials.

### **PCBs**

- Remedial action is not required at this time; and
- PCB materials and liquids that are removed as a result of planned renovation or demolition are to be packaged in accordance with R.R.O. 1990, Reg. 362 and incinerated at a provincially or federally permitted destruction facility.

### **Silica**

- Remedial action is not required at this time; and
- Construction disturbance of silica-containing products may result in excessive exposures to airborne silica, especially if performed indoors and dry. Cutting, grinding, drilling or demolition of materials containing silica should be completed only with proper respiratory protection and other worker safety precautions as outlined in the Ministry of Labour Guideline – Silica on Construction Projects, 2004.

### **Mould**

- Remedial action is not required at this time; and
- If mould is uncovered inside wall cavities during hand demolition, use appropriate precautions as outlined in the EACO (Environmental Abatement Council of Ontario) Mould Abatement Guidelines, Edition 2 (2010).

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## **1.0 INTRODUCTION AND SCOPE**

### **1.1 Introduction**

Pinchin Environmental Ltd. (Pinchin) was retained by the Upper Canada District School Board (UCDSB, Client) to conduct an assessment of hazardous building materials in the Front of Yonge Public School located at 1504 County Road 2 in Mallorytown, Ontario.

This report was prepared to fulfil the Owner's requirements under Section 30 of the Ontario Occupational Health and Safety Act, Revised Statutes of Ontario 1990, (as amended). Prior to tendering project work in the building, the building owner or owner's agent must provide this report to constructors bidding on the project work. In turn, the constructor must provide this report to contractors and subcontractors prior to requesting bids. This report also fulfills the requirements of Section 10 of O. Reg. 278/05, Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations. This requires that owners report the presence of both friable and non-friable asbestos to constructors as part of the tendering process or prior to arranging for work.

This assessment is intended for long term management of asbestos-containing materials as required in Section 8 (3) of O. Reg. 278/05 and may not provide sufficient detail for pre-construction or pre-demolition purposes.

The assessment was performed by Sarah Young of Pinchin on December 15, 2010. The surveyor was unaccompanied during the assessment.

### **1.2 Facility Description**

The facility was constructed in the 1970's. The facility is approximately 18,920 square feet in area.

### **1.3 Scope of Assessment**

The assessed area consisted of all parts of the building. The assessment was performed to establish the location and type of hazardous building materials incorporated in the structure(s) and its finishes. For the purpose of the assessment, and this report, hazardous building materials are defined as those containing the following substances:

The following Ontario Ministry of Labour Designated Substances:

- Asbestos;
- Lead;
- Mercury; and
- Silica (free crystalline silica).

The investigation included an examination for the presence of:

- Polychlorinated Biphenyls (PCBs); and
- Mould or microbial contamination (visible growth only).

The following Designated Substances are not typically found in building materials in a composition/state that is hazardous. Therefore, these materials were not addressed in this assessment. Furthermore, the Client did not report the use of any of the following Designated Substances in processes:

- Arsenic;
- Acrylonitrile;
- Benzene;
- Coke oven emissions;
- Ethylene oxide;
- Isocyanates; and
- Vinyl chloride (vinyl chloride monomer, not PVC).

Owner or occupant processes, articles within the building(s) such as stored items, furniture, etc., subsurface materials or equipment (vessels, drums, underground storage tanks, pipes, etc.), possible contaminants in the soil and groundwater on the site, and sampling of materials that could result in a hazard to the surveyor or damage to the building were not included in the assessment.

## **2.0 ASSESSMENT METHODOLOGIES AND CRITERIA**

### **2.1 Methodology**

The surveyor entered each room, corridor, service area, etc. where access was possible within the extent of the assessed area and inspected for the presence of hazardous building materials. Relevant information was recorded where hazardous building materials were observed, including approximate quantities, locations, condition, sample information and sample locations. Quantities reported are an approximate visual estimate.

The investigation was limited to non-intrusive testing at the request of the Client. Concealed locations such as spaces above solid ceilings, and within shafts and pipe chases were accessed via existing access panels only. Walls, solid ceilings, flooring, structural items, interior finishes or exterior building finishes were not removed to determine the presence of concealed materials.

### **2.2 Asbestos**

The surveyor inspected for the presence of friable and non-friable ACM. Typical examples of friable ACM include sprayed fireproofing, acoustic/texture finish, and mechanical insulation.



Typical examples of non-friable ACM include asbestos cement sheets or pipes, vinyl floor tiles, vinyl sheet flooring, drywall compound and asbestos textile products. Typical examples of non-friable ACM, which have the potential to become friable during construction, include plaster and acoustic ceiling tiles. Refer to Appendix I for a definition of friability.

### *2.2.1 Asbestos Sampling Exclusions*

A number of materials which might contain asbestos were *not* sampled during our assessment for various reasons. Reasons for not sampling these materials include:

- Sampling the material may be hazardous to the surveyor (e.g., electrical hazard);
- Sampling the materials may cause consequential damage to the property (e.g., sampling roofing may cause leaks);
- The material is inaccessible without major demolition (e.g., inside boilers etc.); or
- The material is present in such an inconsistent fashion that without complete removal of finishes, the extent of ACM cannot be determined (e.g., floor levelling compound).

If present, these materials must be presumed to be asbestos-containing and are best sampled *immediately* prior to commencing renovation (see list of presumed ACM in Findings Section).

### *2.2.2 Asbestos Sampling Strategy and Frequency*

Asbestos bulk samples were collected at a rate that was in compliance with the requirements of O. Reg. 278/05. The Regulation identifies the minimum number of samples to be collected and analyzed (1, 3, 5, or 7 depending on quantity, application and friability) from each homogeneous material, in order for the material to be considered non-asbestos. This frequency is indicated in Table 1 of the Regulation (see Appendix I). A homogeneous material is defined in Regulation 278/05 as one that is uniform in colour and texture. The surveyor used information obtained on site by visual examination, available information on the phases of the construction and any information on renovations provided by the client, to determine the extent of each homogeneous area and the number of samples required.

The use of asbestos in drywall joint compound was banned in Canada under the Federal Hazardous Products Act of 1980 but it could possibly contain asbestos as late as 1986 (due to stored material and non-compliance with the ban). Most buildings undergo constant renovation, including the removal and replacement of drywall partitions. Attempts to distinguish and delineate asbestos-containing drywall compound from new non-asbestos drywall compound is often unachievable. Therefore, drywall joint compound was sampled at exterior walls, columns or other locations which are unlikely to have been renovated in an attempt to determine the presence of asbestos in the original drywall compound.

Asbestos cement products and various other non-friable materials (e.g., vibration dampers) were visually identified as ACM where present and where visual identification is reliable.

Ontario was the first Canadian Province to ban the use of friable asbestos (March 1986, O. Reg. 654/85). Of the many non-friable materials, only drywall joint compound has been banned in Canada. Therefore in theory, all other non-friable materials and surfaces in which asbestos could have been used, should be sampled for total certainty that it is non-asbestos, even to the present day. In practice however, asbestos ceased being used in most materials by manufacturers as a result of asbestos concerns. Pinchin is aware of many of the dates that certain materials ceased being manufactured with asbestos. Based on this knowledge, we suggest that sampling of certain materials is not required after specific dates and our sampling strategy was based on this knowledge. In addition, to be conservative we allow several years past these dates in our strategy. This allows additional time so that stored ACM products would have worked through the supply chain, and allows for some uncertainty in the exact start/finish date of construction and associated usage of ACM. We believe this is a prudent and responsible limitation and that the sampling strategy is appropriate.

Exterior caulking was sampled at the client's request. Locations of caulking sampling were not repaired. Pinchin is not responsible or liable for leaks or water damage caused by sampling.

### *2.2.3 Basis of Evaluation and Recommendations regarding ACM*

The condition and the potential for disturbance of any ACM observed were evaluated. The evaluation criteria were based on the conclusions of published studies, particularly the "Royal Commission on Matters of Health and Safety Arising from the Use of Asbestos in Ontario", existing Ontario regulation, and our experience involving buildings that contain ACM.

An ACM was considered damaged (fair or poor condition) if it is sprayed material that is delaminating, mechanical insulation with damaged/missing insulation or jacketing, or non-friable materials that have been pulverized or damaged so that they have become friable.

The priority for remedial action is based not only on the evaluation of condition but is also based on several other factors which include:

- Accessibility or potential for direct contact and disturbance;
- Practicality of repair (for example, will damage to the ACM continue even if it is repaired);
- Visibility of the material; and
- 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).

Recommendations also include removal of ACM that may be disturbed by any planned renovation or demolition activity known to Pinchin.

### **2.3 Lead**

Each distinctive paint finish present in more than very limited application was tested for lead content using a portable X-ray fluorescence analyzer (XRF). The XRF is a useful tool in indentifying paints with elevated concentrations of lead (greater than 0.5% or 1 mg/cm<sup>2</sup>). These paints are more likely to be problematic and result in worker exposure during certain activities/disturbances.

The Ontario Ministry of Labour (MOL) has not established a lower limit for concentrations of lead in paint, below which precautions do not need to be considered. The MOL will not accept U.S. Environmental Protection Agency (EPA) or U.S. Housing and Urban Development (HUD) limits (greater than 0.5%, or 1 mg/cm<sup>2</sup>) for lead for this purpose. For this report, all paints containing lead at a concentration greater than the RDL (Reliable Detection Limit) for the test method have been discussed. The RDL for the XRF is 0.04 mg/cm<sup>2</sup>.

Building materials suspected of containing lead (e.g., lead sheeting) were identified by appearance and age, and knowledge of historic applications.

### **2.4 Mercury**

Building materials suspected of containing mercury were identified by appearance, age, and knowledge of historic applications. Sampling was not performed. Dismantling of equipment suspected of containing mercury was not performed.

### **2.5 Silica**

Building materials suspected of containing crystalline silica were identified by knowledge of current and historic applications. Sampling was not performed.

### **2.6 Polychlorinated Biphenyls (PCBs)**

Information labels on electrical equipment such as transformers and capacitors for motors were examined where available to determine PCB content. The information was compared against information available in the "Handbook on PCB's in Electrical Equipment" issued by Environment Canada in order to determine PCB content of materials. Bulk sampling was not performed at live PCB impregnated cables, or of dielectric fluids or materials in transformers or capacitors.

Light ballasts are present in fluorescent and HID light fixtures. Fluorescent light fixtures were not disassembled to examine ballasts during this assessment. It is assumed in a building of this era, that some of the light ballasts will contain PCB's if the building has not been re-lamped and all ballast replaced.

Exterior caulking and sealants were analyzed for PCB content.

This assessment is intended for pre-construction or pre-demolition purposes only, and may not provide sufficient detail for long term management of PCBs or to determine end-of-use inventories as required in SOR/2008-273.

## **2.7 Mould**

Mould was identified if visibly present in a significant quantity on exposed building surfaces. If any mould growth is concealed within wall cavities it was not addressed in this assessment.

## **2.8 Analytical Methods**

### *2.8.1 Asbestos*

Bulk samples collected for asbestos identification were analyzed at the Pinchin Laboratory in Ottawa. Preliminary identification of asbestos fibres was made using polarized light microscopy, with confirmation of the presence and type of asbestos by dispersion staining optical microscopy. 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. Pinchin is certified under the National Voluntary Laboratory Accreditation Program (NVLAP) to perform asbestos analysis of bulk samples.

The asbestos analysis was completed using a stop positive approach. Only one result of greater than 0.5% asbestos content is required to determine that a material is asbestos-containing, but all samples must be analyzed to conclusively determine that a material is non-asbestos (O. Reg. 278/05). The laboratory stopped analyzing samples from a homogeneous material once greater than 0.5% asbestos was detected in any of the samples of that material. All samples of a homogeneous material were analyzed if no asbestos was detected. Where building materials are described in this report as non-asbestos, or described as containing no asbestos, this is subject to the limitations of the analytical method used, and should be understood to mean no asbestos was detected.

Analytical results are presented in Appendix II.

### *2.8.2 Lead*

Measurements for lead in paint were made on-site with an X-ray fluorescence spectrum analyzer (XRF). The XRF analyzer is a portable computerized instrument designed for on-site detection of lead in paint. The analyzer is recognized by HUD and the EPA as equivalent or superior in accuracy, to the traditional paint scraping and laboratory analysis. The XRF analyzer allows many measurements to be made compared to sample collection and laboratory analysis, and is non-destructive.

Analytical results are presented in Appendix III.

### 2.8.3 Polychlorinated Biphenyls (PCBs)

PCB samples were analyzed at Aevitas Laboratories Inc. using the ASTM D4059 - Standard Test Method for Analysis of Polychlorinated Biphenyls in Insulating Liquids by Gas Chromatography modified according to the material matrix. Aevitas Laboratories are accredited by CALA.

Analytical results are presented in Appendix IV.

## 2.9 Hazardous Materials Inventory System (HMIS) Data Sheets

Pinchin Environmental Ltd. collected information on a separate Hazardous Materials Inventory System (HMIS) field data collection sheet at each Location. This information was entered into our HMIS database.

On the HMIS data sheets, building materials found within the area or room are listed as being part of each of the following Building Systems:

- Floor;
- Ceiling;
- Wall;
- Structure;
- Pipe;
- Duct;
- Mechanical; and
- Other.

Each system is then categorized into particular Components of the Building System (e.g. Domestic Hot Water (Pipe), Exhaust Air (Duct)). Each Component is then sub-categorized to provide information under the following headings:

- *Item* that makes up the component e.g. pipe elbow or pipe fitting;
- *Material* that is present on or as the component;
- *Accessibility* of the component (ranks ranging from “accessible to all” to “inaccessible”, A-D);
- *Visible* within the room or obscured by other finishes (Yes or No);
- The *Covering* if present on the component (e.g. canvas jacket on pipe insulation);
- The *Condition* of the material (Good, Fair or Poor);
- Approximate *Quantity* of the material as appropriate (number of elbows, linear feet of pipe, square feet of material or percentage of material);
- The *Units* that apply to the quantity;
- The *Sample Number* that relates to the material;
- The *Type of Asbestos* in the Material;

- The *Action* required regarding the asbestos-containing material based on the action matrix provided in Appendix VII; and
- The *Friability* of the material (whether friable or non-friable). Refer to Appendix I for a definition.

Refer to Appendix VII for a full description of the hazard assessment criteria, definitions of Condition, Access and Visibility, and the hazard assessment matrix. Refer to Appendix VIII for a Location Summary. Refer to Appendix IX for the HMIS Confirmed and Presumed Asbestos Report.

## **2.10 Photographs**

Photographs are presented in Appendix V.

## **2.11 Drawings**

Included on the drawings in Appendix VI, are locations that samples were collected.

## **3.0 FINDINGS**

All rooms or areas of the building were accessible to the surveyor at the time of the assessment.

### **3.1 Asbestos**

#### *3.1.1 Sprayed Fireproofing and Thermal Insulation*

Sprayed fireproofing or sprayed thermal insulation was not found.

#### *3.1.2 Texture Finishes (Acoustic/Decorative)*

Texture finishes, containing 5-10% chrysotile asbestos (Samples 0003A-G), are present on the upper portions of the walls in the gymnasium and stage (Locations 11 and 13). Texture finish is a friable material, was painted and was noted in good condition. Refer to Photo 1 in Appendix V.

#### *3.1.3 Pipe Insulation*

Pipes are either not insulated or insulated with non-asbestos fibreglass.

#### *3.1.4 Duct Insulation*

Ducts are either not insulated or insulated with non-asbestos fibreglass.

#### *3.1.5 Mechanical Equipment Insulation*

Asbestos-containing insulations were not found on mechanical equipment. The hot water tank and air handling unit was either insulated with non-asbestos fibreglass or not insulated.

### 3.1.6 Acoustic Ceiling Tiles

Six visually distinct types of acoustic ceiling tile are present in the building as follows:

Tile Size (feet)	Type of Tile	Pattern	Sample Number/Date Code	Asbestos Type
2 x 4	Lay-in	AT-1, Medium and Small Clustered Pinholes	0002A-C	None Detected
2 x 4	Lay-in	AT-2, Fleck and Pinhole	05/11/09	Non-Asbestos
2 x 4	Lay-in	AT-3, Wide Random Fissures and Pinholes	0008A-C	None Detected
2 x 4	Lay-in	AT-4, Gypsum Composition	Visually Assessed	Non-Asbestos
2 x 4	Lay-in	AT-5, Fissures and Pinholes	02/13/00	Non-Asbestos
1 x 1	Glued-on	AT-6, Large and Medium Holes	0010A-C	None Detected

### 3.1.7 Vermiculite

Loose fill vermiculite was not found. Demolition of concrete block walls or solid ceilings was not performed.

### 3.1.8 Plaster

Plaster finishes were not found.

### 3.1.9 Drywall Compound

Drywall (gypsum board) is present as wall and ceiling finishes in isolated areas throughout the building. Five samples of drywall joint compound were collected (Samples 01A-E) and analysis confirmed the presence of 0.5-5% chrysotile asbestos in the joint compound. All drywall joint compound present throughout the building should be assumed to contain asbestos unless further sampling determines otherwise. Drywall joint compound is a non-friable material and was noted in good condition.

### 3.1.10 Asbestos Cement Products (Transite)

Transite board is present as window panels and behind radiators around the interior perimeter of the building. The transite panels are concealed behind millwork, wall coverings, and above ceiling tiles. Transite is a non-friable material that was visually determined to contain asbestos. All transite is in good condition. There is approximately 1500 square feet of transite throughout the building. Refer to Photo 2 in Appendix V.

### *3.1.11 Vinyl Sheet Flooring*

One visually distinct type of vinyl sheet flooring is present in the building. Blue specked vinyl sheet flooring (VSF1) is present in isolated areas throughout the building. Three samples (Samples 0004A-C) were collected and asbestos was not detected in the paper backing layer (underpad).

### *3.1.12 Vinyl Floor Tile and Mastic*

Seven visually distinct types of vinyl floor tile are present in the building, as follows:

<b>Tile and Size (inches)</b>	<b>Colour</b>	<b>Sample Numbers</b>	<b>Asbestos Type - Vinyl Floor Tile</b>	<b>Asbestos Type - Mastic</b>
VT1 – 12x12	White with Grey and Black Fleck	0005A-C	None Detected	None Detected
VT2 - 12x12	Grey Fleck	0007A-C	None Detected	None Detected
VT3 – 12x12	White with Blue Fleck	0009A-C	None Detected	None Detected
VT4 – 12x12	Light Blue Fleck	0011A-C	None Detected	None Detected
VT5 – 12x12	Brown Fleck	Not Sampled	Assumed Non- Asbestos	Assumed Non- Asbestos
VT6 – 12x12	Orange Fleck	Not Sampled	Assumed Non- asbestos	Assumed Non- asbestos
VT7 – 12x12	Beige Fleck	Not Sampled	Assumed Non- asbestos	Assumed Non- asbestos

Vinyl floor tiles that were assumed to be non-asbestos were done so based on the age of installation (post 2000) as described by the Client.

### *3.1.13 Sealants – Caulking*

Caulking, containing 0.5-5% chrysotile asbestos, is present around exterior windows and doors (Samples 0006A-C) around the exterior perimeter of the building (Location 36). Caulking is non-friable and was noted in good condition.

## **3.2 Presumed Asbestos-Containing Materials**

A number of materials which might contain asbestos were *not* sampled during our assessment. If present, these materials must be presumed to be asbestos-containing and are best sampled



*immediately* prior to commencing renovation or demolition. Materials<sup>1</sup> presumed to contain asbestos include:

- roofing, roofing felt and tar.

### **3.3 Lead**

#### *3.3.1 Lead-Containing Paint and Coatings*

Appendix III presents the Niton XRF Lead Test Results.

Elevated levels of lead, ranging from 2.00 mg/cm<sup>2</sup> to 2.70 mg/cm<sup>2</sup> were detected in the white paint on the wallboard partitions in the classrooms throughout the building.

Low levels of lead, ranging from 0.04 mg/cm<sup>2</sup> to 0.70 mg/cm<sup>2</sup>, were detected in purple painted texture finished walls, in the red and orange painted wood doors and in the white painted metal door frames present throughout the building.

Lead-containing paint was in good condition and not flaking, peeling or delaminating.

#### *3.3.2 Other Lead Applications*

Lead may be present in solder throughout the building.

Back-up emergency lights, present throughout the building, are powered with lead-acid batteries.

### **3.4 Mercury**

Mercury vapour is present in all fluorescent lamps.

Mercury is present as a liquid in thermostats.

### **3.5 Silica**

Free crystalline silica (common construction sand) is present in concrete, mortar, brick, masonry, ceramics, asphalt, etc., where present in the building.

### **3.6 Polychlorinated Biphenyls (PCBs)**

The building has not been comprehensively re-lamped with new energy efficient light ballasts and lamps, and as such, a percentage of light ballasts will be pre-1978 and contain PCB's.

Exterior window caulking was collected (PCB Sample 1) and analysis determined that <0.5 mg/kg of PCBs was detected which is below the allowable limit of 50 mg/kg of PCBs as defined in the Environmental Protection Act R.R.O. 1990, Regulation 362. Therefore, the material does not require specific handling and disposal methods.

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<sup>1</sup> Materials are non-friable except where noted.

Appendix IV presents the analytical results for PCB analysis.

### **3.7 Mould**

Suspect mould growth or water staining was not observed during the assessment.

## **4.0 RECOMMENDATIONS**

### **4.1 General**

This report must be given to the constructor. In turn the constructor must provide this report to contractors and sub-contractors.

Dispose of waste containing hazardous materials as per the requirements of applicable waste handling regulations<sup>2</sup>.

### **4.2 Asbestos**

#### *4.2.1 Remedial Work*

All asbestos-containing materials were noted in good condition at the time of the assessment and as such, no remedial work is required at this time.

#### *4.2.2 Renovation Work*

We recommend from practical experience that ACM be removed if it may be disturbed by maintenance, construction or demolition activities.

If the identified ACM will not be removed prior to commencement of the work, disturbance of ACM must follow the appropriate asbestos precautions for the classification of work being performed (see headings below for general procedures):

Sample all materials excluded from sampling or presumed to contain asbestos immediately prior to removal where required.

#### *4.2.3 Texture finish*

If texture finish is to be disturbed use Type 3 procedures as outlined within Ontario Regulation 278/05. If only minor amounts of texture finish are to be disturbed (less than 1 square metre), Type 2 procedures would be applicable.

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<sup>2</sup> Transportation and disposal of Hazardous Building Materials are under the jurisdiction of Federal, Provincial and local government agencies. Primarily, Ministry of the Environment Regulation 347 as amended dictates disposal requirements. However, regional dumpsites have the ability to impose more stringent requirements. Disposal of some Hazardous Building Materials may require testing prior to disposal so as to classify the waste.

#### *4.2.4 Drywall Compound*

If the drywall with drywall joint compound must be removed as a result of planned demolition, renovation, etc. use Type 1 procedures as outlined within Ontario Regulation 278/05 to remove less than 1 square metre of drywall with asbestos-containing drywall joint compound, or Type 2 procedures for larger quantities.

#### *4.2.5 Asbestos-Cement (Transite) Materials*

If asbestos cement (Transite) materials must be removed as a result of planned demolition, renovation, etc. use Type 1 procedures as outlined within Ontario Regulation 278/05 if the work is done using wet methods and using hand-held non-powered tools.

#### *4.2.6 Sealants – Caulking*

If the caulking must be removed as a result of planned demolition, renovation, etc, use Type 1 procedures as outlined within Ontario Regulation 278/05 if the work is done using wet methods and using hand-held non-powered tools.

### **4.3 Lead**

Construction disturbance of lead-containing products may result in exposure to lead. Cutting, grinding, drilling, removing, stripping or demolition of materials containing or coated with lead should be completed only with proper respiratory protection and other worker safety precautions as outlined in the Ministry of Labour Guideline – Lead on Construction Projects, 2004. The Ministry has not established a lower limit for concentrations of lead in paint (or other materials) below which precautions do not need to be considered, and will not accept US EPA or HUD limits (0.5% lead) for this purpose. Therefore the need for precautions and details of worker safety will need to be assessed on a project by project basis. Pinchin recommends that the building owner and contractor seek advice to develop a site-specific safety plan (including air monitoring) that considers the various factors that would affect worker exposure to lead from paint and other materials. Performing an exposure assessment during work that disturbs lead-containing coatings may be able to alleviate the use of some of the precautions that are required.

### **4.4 Mercury**

Do not break lamps or separate liquid mercury from components. Mercury-containing materials and lamps should be recycled to reclaim the mercury. Disposal in significant quantities would require mercury-containing materials to be disposed of as hazardous waste.

### **4.5 Silica**

Construction disturbance of silica-containing products may result in excessive exposures to airborne silica, especially if performed indoors and dry. Cutting, grinding, drilling or demolition

of materials containing silica should be completed only with proper respiratory protection and other worker safety precautions as outlined in the Ministry of Labour Guideline – Silica on Construction Projects, 2004.

#### **4.6 Polychlorinated Biphenyls (PCBs)**

When light fixtures are removed, examine the ballasts for PCB content. If ballasts are not clearly labelled as “non-PCB” or are suspected to contain PCBs, handle and dispose of in accordance with SOR/2008-273.

##### *4.6.1 End of Use dates for Polychlorinated Biphenyls (PCBs)*

Regulation SOR/2008-273 specifies end of use dates for PCBs. PCB-containing materials must be phased out of use by the following dates:

<b>Site Type</b>	<b>PCB Type and Concentration (PPM)</b>	<b>End of Use Date</b>
Sensitive Site	Equipment containing $\geq 500$ PPM PCBs	December 31, 2009
Sensitive Site	Equipment containing 50-500 PPM PCBs	December 31, 2009
Sensitive Site	Light ballasts and pole top transformers $\geq 50$ PPM	December 31, 2025
Any other place	Equipment containing $\geq 500$ PPM PCBs	December 31, 2009
Any other place	Equipment containing 50-500 PPM PCBs	December 31, 2025
Any other place	Light ballasts and pole top transformers $\geq 50$ PPM	December 31, 2025

Sensitive sites include:

- Drinking Water Treatment Plant;
- Feed or Food Processing Plants;
- Child Care Facility;
- Preschool, Primary School or Secondary School;
- Hospitals;
- Senior Citizens Care Facilities; and
- On the property of any of the above, AND within 100 metres of the above.

#### **4.7 Mould**

Suspect mould growth or water staining was not observed at the time of the assessment. If mould is uncovered inside wall cavities during hand demolition, use appropriate precautions as

outlined in the EACO (Environmental Abatement Council of Ontario) Mould Abatement Guidelines, Edition 2 (2010).

## **5.0 LIMITATIONS**

This report details the hazardous building materials found within or forming part of the building envelope. The assessment only included inspections of the structure and finishes, including mechanical equipment. The assessment did not include inspection of current or past owner or occupant articles within the building (i.e., process materials or equipment, portable equipment, curriculum items, etc.) and does not report on possible contaminants in the soil and groundwater of the site, underground storage tanks, buried piping, inside drums, vessels, production equipment, or in areas not accessed by the surveyor.

The work performed by Pinchin was conducted in accordance with generally accepted engineering or scientific practices current in this geographical area at the time the work was performed. The Client acknowledges that subsurface and concealed conditions may vary from those encountered or inspected. Pinchin can only comment on the environmental conditions observed on the date(s) the assessment is performed. The work is limited to those materials or areas of concern identified by the Client or outlined in our proposal. Other areas of concern may exist but were not investigated within the scope of this assignment.

Pinchin makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issue, regulatory statutes are subject to interpretation and these interpretations may change over time. Pinchin accepts no responsibility for consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

No warranty is either expressed or implied, or intended by this agreement or by furnishing oral or written reports or findings. The liability of Pinchin or its staff will be limited to the lesser of the fees paid or actual damages incurred by the Client. Pinchin will not be responsible for any consequential or indirect damages. Pinchin will only be liable for damages resulting from negligence of Pinchin. Pinchin will not be liable for any losses or damage if client has failed, within a period of (2) years following the date upon which the claim is discovered within the meaning of the Limitations Act, 2002 (Ontario), to commence legal proceedings against Consultant to recover such losses or damage.

Information provided by Pinchin is intended for Client use only. Pinchin will not provide results or information to any party other than the Client, unless the Client, in writing, requests information to be provided to a third party or 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.

## 6.0 CLOSURE

Should there be any questions regarding the contents of this report, please contact the undersigned at (613) 541-1013.

Yours truly,

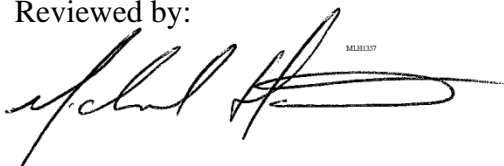
**Pinchin Environmental Ltd.**

Prepared by:

SZY1357  

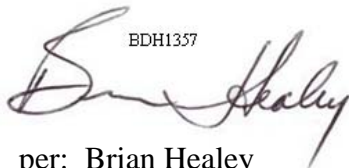

per: Sarah Young  
*Project Technologist*  
Hazardous Materials &  
Transaction Due Diligence  
[syoung@pinchin.com](mailto:syoung@pinchin.com)

Reviewed by:

MLH1357  


per: Michael Harrett  
*Operations Manager*  
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Reviewed by:

BDH1357  


per: Brian Healey  
*Senior Technical Manager*  
Hazardous Materials &  
Transaction Due Diligence  
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**APPENDIX I**  
**FRIABILITY AND REGULATIONS**

## 1.0 FRIABILITY

As per regulation 278/05, “friable material” means material that, (a) when dry, can be crumbled, pulverized or powdered by hand pressure, or (b) is crumbled, pulverized or powdered. Asbestos-containing material (ACM) that is friable has a much greater potential than non-friable ACM to release airborne asbestos fibres when disturbed. The most common friable ACM used in the past are surfacing materials (usually sprayed fireproofing, texture, decorative or acoustic sprayed finishes) and thermal insulations on mechanical systems. Asbestos-containing non-friable materials include vinyl floor tiles, drywall joint compound, gasket materials, asbestos cement pipe or board, asbestos textiles, etc. Note that though a product may be considered non-friable when new, if the product releases fine dust due to deterioration or during removal, the free dust is considered friable. Potentially friable materials (or sometimes called miscellaneous friable materials) include materials such as ceiling tiles and plaster. These materials are non-friable in place, but can generate dust upon removal.

## 2.0 TABLE 1 REGULATION 278/05 – ASBESTOS SAMPLING FREQUENCY

Type of Material	Size of Area of Homogeneous Material	Minimum Number of Samples
Surfacing material, including without limitation material that is applied to surfaces by spraying, by troweling or otherwise, such as acoustical plaster on ceilings, fireproofing materials on structural members and plaster	Less than 90 square metres	3
	90 or more square metres, but less than 450 square metres	5
	450 or more square metres	7
Thermal insulation, except as described below	Any size	3
Thermal insulation patch	Less than 2 linear metres or 0.5 square metres	1
Other material	Any size	3

## 3.0 REGULATIONS - ONTARIO

Section 30 of the Occupational Health and Safety Act requires building owners or their agents (architects, general contractors, construction managers, etc.) to prepare or have prepared, a list of designated substances present in the area of construction or facility undergoing construction work. There are eleven designated substances subject to special regulation under the Occupational Health and Safety Act. Of these eleven, asbestos, lead, mercury, and silica are



commonly found in buildings and can impact construction, demolition, and renovation projects. The owner must ensure that a prospective constructor has received a designated substance report before entering into a binding contract with the constructor/contractor.

The disturbance of asbestos-containing materials (ACM) on construction projects is controlled by Ontario Ministry of Labour Regulation 278/05 made under the Occupational Health and Safety Act (Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations). The Regulation classifies all disturbances as Type 1, Type 2, or Type 3, each of which has defined work practices. All ACM are subject to special handling and disposal, and must be removed before partial or full demolition. The Ministry of Labour must be notified prior to any project involving removal of more than a minor amount of friable ACM (Type 3 or Glove Bag abatement).

The Ministry of Labour released two documents in December 2004, Ministry of Labour Guideline - Lead on Construction Projects, and Ministry of Labour Guideline - Silica on Construction Projects. Although these documents were not released as Regulations, to quote the Ministry of Labour *“These guidelines will raise awareness of the potential hazards associated with Lead and Silica for common construction activities and tasks, and will provide assistance to employers, constructors and workers in how to take reasonable precautions to protect workers from exposure to Lead and Silica. These Guidelines include specific measures and procedures for typical construction activities and operations and can be used as best practices by the industry.”* These guidelines are expected to be widely enforced by the Ministry of Labour, via the general duty clause 25 (2) (h) of the Occupational Health and Safety Act, since there is no other construction regulation regarding lead and silica available for them to draw upon as a resource. The Ministry of Labour has also issued guidelines or proposed regulations for coal tar products and handling of mercury on construction sites.

Management, handling and transfer of PCBs are controlled by R.R.O. 1990, Reg. 362, Waste Management-PCB's Regulation, made under the Ontario Environmental Protection Act, and the PCB Regulation (SOR/2008-273) made under the federal Environmental Protection Act.

The Ontario Ministry of Labour published the hazard alert “Mould in Workplace Buildings”, in December 2000. To quote from the alert, “The sustained and/or extensive growth of any visible mould on the interior surfaces of a building is unacceptable. Mould growth on the interior surfaces of buildings is a risk factor for health problems.” The Ministry of Labour has enforced work stoppages as a result of indoor mould growth and has enforced removal using work practices similar to those required for asbestos abatement.

Waste disposal is controlled by Ministry of the Environment Regulation, R.R.O. 1990 Reg. 347 as amended.

**APPENDIX II**  
**RESULTS OF BULK SAMPLE ANALYSIS FOR ASBESTOS**

## Pinchin Environmental Asbestos Laboratory Certificate of Analysis

<b>Project Name:</b>	UCDSB, Front of Yonge Elementary School 1504 County Road 2, Mallorytown, ON		
<b>Project No.:</b>	63221	<b>Date Received:</b>	December 20, 2010
<b>Prepared For:</b>	Sarah Young	<b>Date Analyzed:</b>	January 3, 2011
<b>Lab Reference No.:</b>	b77467	<b># Samples submitted:</b>	39
<b>Analyst(s):</b>	A. Ziobrowski	<b># Phases analyzed:</b>	39

**Method of Analysis:**

**EPA 600/R-93/116 - Method for the Determination of Asbestos in Bulk Building Materials dated July, 1993**

Bulk samples are checked visually and scanned under a stereomicroscope. Slides are prepared and observed under a Polarized Light Microscope (PLM) at magnifications of 40X, 100X or 400X as appropriate. Asbestos fibres are identified by a combination of morphology, colour, refractive index, extinction, sign of elongation, birefringence and dispersion staining colours. A visual estimate is made of the percentage of asbestos present. The percentage range category reported reflects the level of uncertainty of the method for estimating quantities of asbestos in bulk samples. A reported concentration of less than (<) the regulatory threshold (see chart below) indicates the presence of confirmed asbestos in trace quantities, limited to only a few fibres or fibre bundles in an entire sample. This method complies with all provincial regulatory requirements (NIOSH 9002, I.R.S.S.T. 244-2). Multiple phases within a sample are analyzed separately.

Provincial Jurisdiction	Regulatory Threshold	Provincial Jurisdiction	Regulatory Threshold
Ontario	0.5%	Manitoba	0.1% friable 1% non-friable
Quebec	0.1%	Saskatchewan	Unstated, likely 1.0%
Alberta, British Columbia, NWT, Yukon, Nunavut	1%	Atlantic Provinces	1%

All bulk samples submitted to this laboratory for asbestos analysis are retained for a minimum of three months. Samples may be retrieved, upon request, for re-examination at any time during that period.

Pinchin Environmental Ltd. is accredited by the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 101270-0 and 200795-0) for selected test methods for the identification of asbestos in bulk samples and meets all requirements of ISO/IEC 17025:2005 and relevant requirements of ISO 9002:1994. This report relates only to the items tested.

**NOTE:** *This test report may not be reproduced, except in full, without the written approval of the laboratory. The client may not use this report to claim product endorsement by NVLAP or any agency of the U.S. Government. This report is valid only when signed in blue ink by the analyst. Vinyl asbestos floor tiles contain very fine fibres of asbestos and may be missed by some laboratories using the PLM method. Internal verification studies performed by Pinchin indicate that the chance of missing asbestos in floor tiles is no higher than about 2%. Supporting laboratory documentation is available upon request.*



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1504 County Road 2, Mallorytown, ON

**Project No.:** 63221

**Prepared For:** Sarah Young

**Lab Reference No.:** b77467

**Date Analyzed:** January 3, 2011

### BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0001A Drywall Joint Compound - Location 16, Kitchen	Homogeneous, beige, drywall joint compound.	Chrysotile 0.5-5%	Non-Fibrous Material > 75%
0001B Drywall Joint Compound - Location 29, Administration Office			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0001C Drywall Joint Compound - Location 26, Staff Room			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0001D Drywall Joint Compound - Location 7, Classroom			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0001E Drywall Joint Compound - Location 26, Staff Room			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0002A AT-1, 2x4, Medium and Small Clustered Pinholes - Location 16 Kitchen	Homogeneous, beige, layered, compressed, acoustic ceiling tile.	None Detected	Cellulose 25-50% Mineral Wool 50-75% Non-Fibrous Material 0.5-5%

ANALYST



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### BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0002B AT-1, 2x4, Medium and Small Clustered Pinholes - Location 16 Kitchen	Homogeneous, beige, layered, compressed, acoustic ceiling tile.	None Detected	Cellulose 25-50% Mineral Wool 50-75% Non-Fibrous Material 0.5-5%
0002C AT-1, 2x4, Medium and Small Clustered Pinholes - Location 16 Kitchen	Homogeneous, beige, layered, compressed, acoustic ceiling tile.	None Detected	Cellulose 25-50% Mineral Wool 50-75% Non-Fibrous Material 0.5-5%
0003A Texture Coat - Location 13, Stage	Homogeneous, purple, finishing or texture coat.	Chrysotile 5-10%	Vermiculite 5-10% Other Non-Fibrous > 75%
Comments:	Cellulose is present on the surface of this sample.		
0003B Texture Coat - Location 13, Stage			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0003C Texture Coat - Location 13, Stage			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0003D Texture Coat - Location 13, Stage			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0003E Texture Coat - Location 13, Stage			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		

ANALYST

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**Project No.:** 63221

**Prepared For:** Sarah Young

**Lab Reference No.:** b77467

**Date Analyzed:** January 3, 2011

### BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0003F Texture Coat - Location 13, Stage			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0003G Texture Coat - Location 13, Stage			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0004A VSF-1, Blue Specked - Location 24 Water Treatment	Homogeneous, grey, consolidated, fibrous material on the back of vinyl sheet flooring.	None Detected	Cellulose 50-75% Synthetic Fibres 5-10% Glass Fibres 5-10% Non-Fibrous Material 25-50%
0004B VSF-1, Blue Specked - Location 24 Water Treatment	Homogeneous, grey, consolidated, fibrous material on the back of vinyl sheet flooring.	None Detected	Cellulose 50-75% Synthetic Fibres 5-10% Glass Fibres 5-10% Non-Fibrous Material 25-50%
0004C VSF-1, Blue Specked - Location 24 Water Treatment	Homogeneous, grey, consolidated, fibrous material on the back of vinyl sheet flooring.	None Detected	Cellulose 50-75% Synthetic Fibres 5-10% Glass Fibres 5-10% Non-Fibrous Material 25-50%
0005A VT-1, 12x12 White with grey and black flecks - Location 26, Staff Room	2 Phases: a) Homogeneous, white, consolidated, vinyl floor tile.	None Detected	Non-Fibrous Material > 75%
	b) Non-homogeneous, black and yellow, soft, sticky material on the back of vinyl floor tile.	None Detected	Tar and other non-fibrous > 75%

**ANALYST**



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**Date Analyzed:** January 3, 2011

### BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0005B VT-1, 12x12 White with grey and black flecks - Location 26, Staff Room	2 Phases: a) Homogeneous, white, consolidated, vinyl floor tile.	None Detected	Non-Fibrous Material > 75%
	b) Non-homogeneous, black and yellow, soft, sticky material on the back of vinyl floor tile.	None Detected	Tar and other non-fibrous > 75%
0005C VT-1, 12x12 White with grey and black flecks - Location 26, Staff Room	2 Phases: a) Homogeneous, white, consolidated, vinyl floor tile.	None Detected	Non-Fibrous Material > 75%
	b) Non-homogeneous, black and yellow, soft, sticky material on the back of vinyl floor tile.	None Detected	Tar and other non-fibrous > 75%
0006A Window Caulking - Location 36 Exterior	Homogeneous, grey, caulking material.	Chrysotile 0.5-5%	Non-Fibrous Material > 75%
0006B Window Caulking - Location 36 Exterior			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0006C Window Caulking - Location 36 Exterior			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		

ANALYST



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**Project No.:** 63221

**Prepared For:** Sarah Young

**Lab Reference No.:** b77467

**Date Analyzed:** January 3, 2011

### BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0007A VT-2, 12x12 Grey Fleck - Location 35, Portable	2 Phases: a) Homogeneous, grey, consolidated, vinyl floor tile.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, black, soft, sticky material on the back of vinyl floor tile.	None Detected	Tar and other non-fibrous > 75%
0007B VT-2, 12x12 Grey Fleck - Location 35, Portable	2 Phases: a) Homogeneous, grey, consolidated, vinyl floor tile.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, black, soft, sticky material on the back of vinyl floor tile.	None Detected	Tar and other non-fibrous > 75%
0007C VT-2, 12x12 Grey Fleck - Location 35, Portable	2 Phases: a) Homogeneous, grey, consolidated, vinyl floor tile.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, black, soft, sticky material on the back of vinyl floor tile.	None Detected	Tar and other non-fibrous > 75%
0008A AT-3, 2x4 Wide Fissures and Pinholes - Location 35 Portable	Homogeneous, beige, layered, compressed, acoustic ceiling tile.	None Detected	Cellulose 50-75% Mineral Wool 10-25% Perlite 10-25% Other Non-Fibrous 0.5-5%

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### BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0008B AT-3, 2x4 Wide Fissures and Pinholes - Location 35 Portable	Homogeneous, beige, layered, compressed, acoustic ceiling tile.	None Detected	Cellulose 50-75% Mineral Wool 10-25% Perlite 10-25% Other Non-Fibrous 0.5-5%
0008C AT-3, 2x4 Wide Fissures and Pinholes - Location 35 Portable	Homogeneous, beige, layered, compressed, acoustic ceiling tile.	None Detected	Cellulose 50-75% Mineral Wool 10-25% Perlite 10-25% Other Non-Fibrous 0.5-5%
0009A VT-3, 12x12 White with Blue Fleck - Location 4 Classroom	2 Phases: a) Homogeneous, white, consolidated, vinyl floor tile.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, black, soft, sticky material on the back of vinyl floor tile.	None Detected	Tar and other non-fibrous > 75%
0009B VT-3, 12x12 White with Blue Fleck - Location 4 Classroom	2 Phases: a) Homogeneous, white, consolidated, vinyl floor tile.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, black, soft, sticky material on the back of vinyl floor tile.	None Detected	Tar and other non-fibrous > 75%
Comments:	Phase b) is small in size. For more reliable results, a larger sample is required.		

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SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0009C VT-3, 12x12 White with Blue Fleck - Location 4 Classroom	2 Phases: a) Homogeneous, white, consolidated, vinyl floor tile.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, black, soft, sticky material on the back of vinyl floor tile.	None Detected	Tar and other non-fibrous > 75%
Comments:	Phase b) is small in size. For more reliable results, a larger sample is required.		
0010A AT-6, 1x1 large and medium holes - Location 33 Pod	Homogeneous, beige, compressed, acoustic ceiling tile.	None Detected	Cellulose 25-50% Mineral Wool 50-75% Non-Fibrous Material 0.5-5%
0010B AT-6, 1x1 large and medium holes - Location 33 Pod	Homogeneous, beige, compressed, acoustic ceiling tile.	None Detected	Cellulose 25-50% Mineral Wool 50-75% Non-Fibrous Material 0.5-5%
0010C AT-6, 1x1 large and medium holes - Location 33 Pod	Homogeneous, beige, compressed, acoustic ceiling tile.	None Detected	Cellulose 25-50% Mineral Wool 50-75% Non-Fibrous Material 0.5-5%
0011A VT-4, 12x12 Light Blue Fleck - Location 9 Classroom	2 Phases: a) Homogeneous, blue, consolidated, vinyl floor tile.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, black, soft, sticky material on the back of vinyl floor tile.	None Detected	Tar and other non-fibrous > 75%

**ANALYST**





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Prepared For: Sarah Young

Lab Reference No.: b77467

Date Analyzed: January 3, 2011

### BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0011B VT-4, 12x12 Light Blue Fleck - Location 9 Classroom	2 Phases: a) Homogeneous, blue, consolidated, vinyl floor tile.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, black, soft, sticky material on the back of vinyl floor tile.	None Detected	Tar and other non- fibrous > 75%
0011C VT-4, 12x12 Light Blue Fleck - Location 9 Classroom	2 Phases: a) Homogeneous, blue, consolidated, vinyl floor tile.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, black, soft, sticky material on the back of vinyl floor tile.	None Detected	Tar and other non- fibrous > 75%

ANALYST

**APPENDIX III**  
**NITON XRF LEAD TEST RESULTS**



135 Ontario Street, Unit 1  
Kingston, Ontario  
K7L 0A5



**Client:** Upper Canada District School Board  
**Building Address:** Front of Yonge Public School - 1504 County Road 2, Mallorytown, Ontario  
**Project Number:** 63221  
**Date Sampled:** December 15, 2010  
**Units:** mg/cm<sup>2</sup>

Sample #	Type	Component	Substrate	Color	Floor	Location	Result (mg/cm <sup>2</sup> )
1	Mortar	Wall	Brick	Brown	1	Location 36 - Exterior	0.00
2	Paint	Wall	Drywall	White	1	Location 35 - Portable	0.01
3	Paint	Door	Metal	Brown	1	Location 35 - Portable	0.00
4	Paint	Door Frame	Metal	Brown	1	Location 35 - Portable	0.00
5	Paint	Wall	Concrete Block	White	1	Location 3 - Kindergarten	0.00
6	Paint	Exterior Door	Metal	Blue	1	Location 3 - Kindergarten	0.00
7	Paint	Wall	Wallboard	White	1	Location 4 - Classroom	2.30
8	Paint	Door	Wood	Red	1	Location 4 - Classroom	0.30
9	Paint	Wall	Concrete Block	White	1	Location 11 - Gym	0.01
10	Paint	Wall	Texture Finish	Purple	1	Location 13 - Stage	0.50
11	Paint	Door	Wood	Orange	1	Location 13 - Stage	0.04
12	Paint	Wall	Concrete Block	Green	1	Location 22 - Copy Room	0.01
13	Paint	Wall	Drywall	White	1	Location 16 - Kitchen	0.00
14	Paint	Door	Wood	Red	1	Location 16 - Kitchen	0.40
15	Paint	Door Frame	Metal	White	1	Location 16 - Kitchen	0.16
16	Paint	Wall	Wallboard	White	1	Location 6 - Classroom	2.30
17	Paint	Wall	Concrete Block	White	1	Location 6 - Classroom	0.00
18	Paint	Wall	Drywall	White	1	Location 7 - Classroom	0.00
19	Paint	Door	Wood	Red	1	Location 7 - Classroom	0.60
20	Paint	Door Frame	Metal	White	1	Location 7 - Classroom	0.03
21	Paint	Wall	Wallboard	White	1	Location 9 - Classroom	2.70
22	Paint	Wall	Concrete Block	White	1	Location 33 - Pod	0.00
23	Paint	Wall	Wallboard	Red	1	Location 33 - Pod	0.02
24	Paint	Wall	Wallboard	Orange	1	Location 33 - Pod	0.02
25	Paint	Wall	Wallboard	Yellow	1	Location 33 - Pod	0.03



135 Ontario Street, Unit 1  
Kingston, Ontario  
K7L 0A5



**Client** Upper Canada District School Board  
**Building Address:** Front of Yonge Public School - 1504 County Road 2, Mallorytown, Ontario  
**Project Number:** 63221  
**Date Sampled:** December 15, 2010  
**Units:** mg/cm<sup>2</sup>

Sample #	Type	Component	Substrate	Color	Floor	Location	Result (mg/cm <sup>2</sup> )
26	Paint	Wall	Wallboard	Green	1	Location 33 - Pod	0.03
27	Paint	Wall	Wallboard	Blue	1	Location 33 - Pod	0.03
28	Paint	Wall	Wallboard	Purple	1	Location 33 - Pod	0.02
29	Paint	Column	Metal	Red	1	Location 33 - Pod	0.00
30	Paint	Wall	Concrete Block	White	1	Location 34 - Pod	0.00
31	Paint	Door	Wood	Red	1	Location 34 - Pod	0.13
32	Paint	Door Frame	Metal	White	1	Location 34 - Pod	0.70
33	Paint	Wall	Wallboard	White	1	Location 5 - Classroom	2.00
34	Paint	Exterior Door	Metal	White	1	Location 15 - Corridor	0.14
35	Paint	Wall	Concrete Block	Yellow	1	Location 24 - Water Treatment	0.01
36	Paint	Floor	Concrete	Grey	1	Location 17 - Mechanical Room	0.02

**APPENDIX IV**  
**RESULTS OF BULK SAMPLE ANALYSIS FOR PCB'S**

## Certificate of Analysis

Sarah Young

Pinchin Environmental Ltd. (Kingston)  
135 Ontario Street, Unit 1, Kingston, ON, K7L 0A5

Printed: Dec 29, 2010

**Special Notes:** Project: 63221 (UCDSB - Front of Yonge Elementary School)

1 caulking sample was submitted for the following analysis from 1504 County Road 2, Mallorytown, ON.

Date Sampled: **Dec 15, 2010**

Date Tested: **Dec 29, 2010**

Sampled by: **Sarah Young**

### **Report Number: 10-1255**

No.	Analytes	Result	Units	MDL	Comment	Technique
<u>1</u>	<u>Sample ID:</u> <b>Window Caulking - Location 36 Exterior</b>					
	PCBs in Solid	<b>&lt;0.5</b>	mg/kg	0.1	MDL was adjusted upward due to sample dilution.	GC-ECD Extraction

Results relate only to the sample(s) analyzed

Analysis performed by: *Son Le*

Approved By:

Son C.H. Le, B. Eng.

Lab Manager

Phone (519) 740-1333 Ext: 30 Fax (519) 740-2320

Email - lab@aevitas.ca

The Analytical Chemistry Laboratory of Aevitas Inc. is accredited in accordance with the recognised International Standard ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation (CALA) Inc. for specific tests listed in the scope of accreditation approved by CALA.

All Analytical data is subject to uncertainty, and can vary with sample matrices, techniques and instrumental parameters. As a general guideline, uncertainty may be expressed as +/- 50 % of the result at or near the detection limit (MDL) and approximately +/-10% of the result at greater than 10 times the MDL. Method Detection Limits are defined as approximately 3 times the standard deviation (99% confidence level) of a low level standard as per Ontario MOE protocol (1999). They are determined based on undiluted samples with relatively clean matrices. Where dilutions are required, the reported MDL's will be adjusted accordingly.



**APPENDIX V**  
**PHOTOGRAPHS**



Photo 1

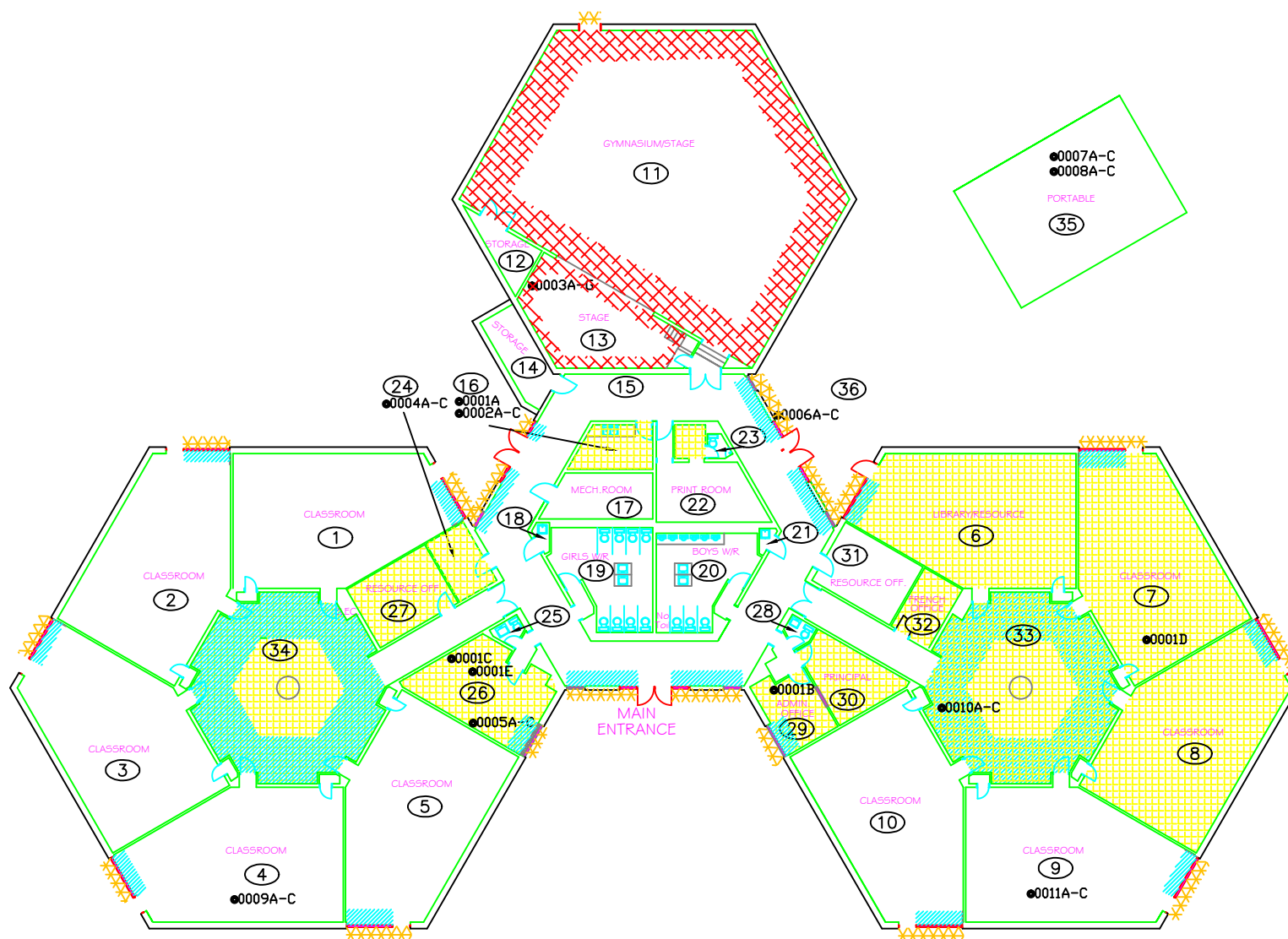
Friable asbestos-containing texture finish present on the upper portions of the walls in the gymnasium and stage (Locations 11 and 13).



Photo 2

Non-friable asbestos-containing transite board is present as window panels and behind radiators around the interior perimeter of the building. The transite panels are concealed behind millwork, wall coverings, and above ceiling tiles.

**APPENDIX VI**  
**DRAWINGS**



PROJECT NORTH:



#### LEGEND

- (X) PINCHIN LOCATION NUMBER
- ⊙ ASBESTOS SAMPLE LOCATION
- [Pattern: Yellow grid] ASBESTOS CONTAINING DRYWALL AND JOINT COMPOUND
- [Pattern: Blue diagonal lines] ASBESTOS CONTAINING TRANSITE PANELS
- [Pattern: Red cross-hatch] ASBESTOS CONTAINING TEXTURE FINISH
- [Pattern: Orange cross-hatch] ASBESTOS CONTAINING EXTERIOR CAULKING



135 Ontario Street  
Kingston, Ontario  
Phone: 1 613 541 1013

PROJECT NAME:

HAZARDOUS MATERIALS  
ASSESSMENT  
1504 COUNTY ROAD 2  
MALLORYTOWN, ONTARIO

DRAWING NAME:

FRONT OF YONGE  
PUBLIC SCHOOL  
GROUND FLOOR

SCALE:

NTS

FILE NO:

63221

DATE:

2011/02/14

REVISION NO:

-

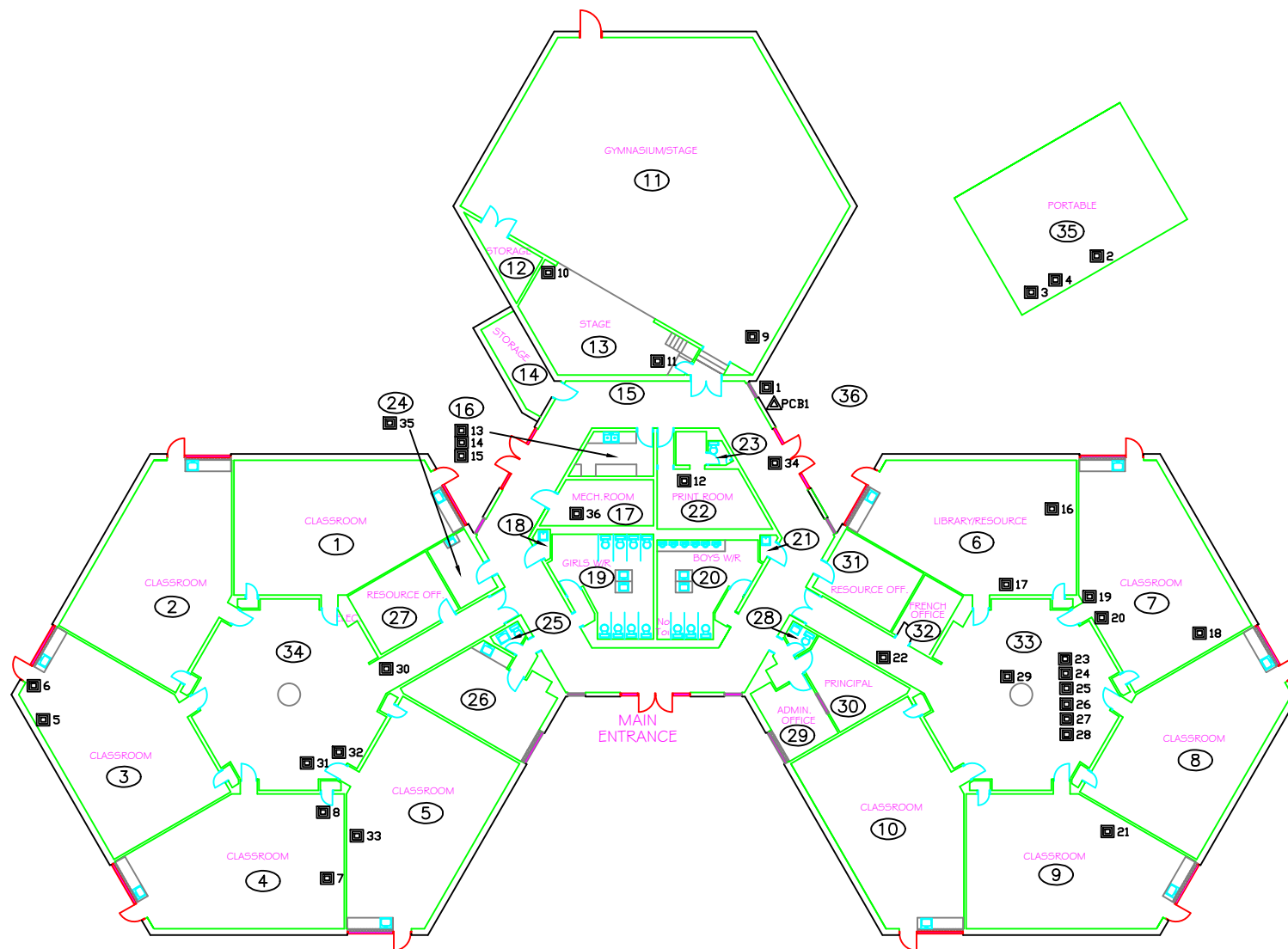
DRAWN BY:

GH

DRAWING NO:

1 of 2

CHECKED BY:  
SY



PROJECT NORTH:



#### LEGEND

- (X) PINCHIN LOCATION NUMBER
- LEAD SAMPLE LOCATION
- △ PCB SAMPLE LOCATION



THE PINCHIN GROUP



135 Ontario Street  
Kingston, Ontario  
Phone: 1 613 541 1013

PROJECT NAME:

HAZARDOUS MATERIALS  
ASSESSMENT  
1504 COUNTY ROAD 2  
MALLORYTOWN, ONTARIO

DRAWING NAME:

FRONT OF YONGE  
PUBLIC SCHOOL  
GROUND FLOOR

SCALE:  
NTS

FILE NO:  
63221

DATE:  
2011/02/14

REVISION NO:  
-

DRAWN BY:  
GH

DRAWING NO:

CHECKED BY:  
SY

2 of 2

**APPENDIX VII**  
**HMIS ASBESTOS ASSESSMENT MATRIX**

## 1.0 EVALUATION CRITERIA AND BASIS OF RECOMMENDATIONS

The detailed asbestos assessment provides information regarding the location, condition, type of asbestos, accessibility, and friability of the Asbestos-Containing Materials (ACM) used in the construction of the building. In order to make recommendations for compliance with current regulations, Pinchin Environmental Ltd. (Pinchin) developed the following ACM evaluation criteria based on the conclusions of published studies, particularly the "Royal Commission on Matters of Health and Safety Arising from the Use of Asbestos in Ontario" and our experience involving buildings that contain friable ACM.

## 2.0 EVALUATION OF CONDITION

### 2.1 Spray Applied Fireproofing, Insulation and Texture Finishes

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

<b>Good</b>	Surface of material shows no significant signs of damage, deterioration or delamination. Evaluation of sprayed materials requires the surveyor to be familiar with the typical irregular surface texture as installed. Good condition includes unencapsulated or unpainted fireproofing or texture finishes, where no delamination or damage is observed, or encapsulated fireproofing or texture finishes where the encapsulation has been applied after the damage or fallout occurred.
<b>Poor</b>	A sprayed material that shows signs of significant damage is delaminating or deteriorating. Significant delamination to surface of ACM spray. Debris from the fireproofing is present or has been reported.

In observation areas where damage exists in isolated locations, both good and poor condition may be applicable. The extent or percentage of each condition will be recorded on the HMIS Survey Form. 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 ACM sprayed or trowelled fireproofing, sprayed or trowelled thermal insulation (non-mechanical insulation), or texture, decorative or acoustic finishes which are present above ceilings, may be limited by the number of observations made, and by building components such as ducts or full height walls that obstruct the above ceiling observations. Persons entering the ceiling space are advised to be watchful for ACM debris prior to accessing or working above ceilings in areas of buildings with this type of ACM regardless of the reported condition.

## 2.2 Mechanical Insulation

The evaluation of the condition of mechanical insulation (on vessels, boilers, breeching, ducts, pipes, fan units, equipment, etc.) utilizes the following criteria:

<b>Good</b>	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.
<b>Fair</b>	Minor penetrating damage to jacketed insulation (cuts, tears, nicks, deterioration or delamination) or undamaged insulation that had 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.
<b>Poor</b>	Original insulation jacket is missing, damaged, deteriorated or delaminated. Insulation is exposed and significant areas have been dislodged. Damage cannot be readily repaired.

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 not possible to observe each foot of mechanical insulation from all angles. Persons working in proximity to ACM mechanical insulation or entering ceilings with ACM mechanical insulation are advised to be watchful of ACM debris regardless of the reported condition.

## 2.3 Non-friable and Potentially Friable Materials

Potentially friable materials (or miscellaneous friable materials) include materials such as plaster and ceiling tiles. Examples of non-friable materials include vinyl floor tiles, vinyl sheet flooring, transite, etc.

The condition of non-friable or potentially friable materials which have the potential to become friable when handled is evaluated as follows:

<b>Good</b>	No significant damage. Material may be cracked or broken but is stable and not likely to become friable upon casual contact. If there is no friable debris present, the condition is rated as good.
<b>Poor</b>	Material is severely damaged. Loose debris is present or binder has disintegrated to the point where the material has become friable.

The evaluation of the condition of non-friable and potentially friable materials does not utilize a fair condition rating.



## 2.4 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. Workers are advised to be watchful for the presence of debris prior to accessing or working in proximity to mechanical insulation or above ceilings in areas of buildings with ACM regardless of the reported presence or absence of debris.

### Debris from Friable ACM

The presence of fallen ACM is noted separately from the presumed friable ACM source and is referred to as debris. Debris is noted in poor condition only.

### Debris from Damaged Non-Friable ACM

The presence of fallen ACM from damaged non-friable ACM is also reported separately from the non-friable ACM source. Only fallen non-friable ACM that has become friable is reported as debris. Debris is noted in poor condition only.

### Evaluation of Assumed Material

The evaluation of Assumed Materials (AM), which are building materials that may contain asbestos but were not sampled or analyzed, is based on the assumption that these AM are asbestos containing.

A list of AM is provided in the Assessment Methodology and Criteria section of this Assessment Report. In the event AM are sampled the findings are included in the text of the report, and these materials are then evaluated accordingly.

## 3.0 EVALUATION OF ACCESSIBILITY

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

<b>Access (A)</b>	Common areas of the building within reach of all building users (approximately 8' - 9' from floor or standard ceiling height). Includes areas where occupant activities may result in disturbance of the Material that is not normally within reach from floor level, but may be easily disturbed by common activities (e.g. gymnasiums, workshops, warehouses). Access A describes materials that could be readily disturbed.
<b>Access (B)</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, and Mechanical Rooms etc. Includes materials within reach from fixed ladders or catwalks, mezzanines, and accessible pipe chases.

<b>Access(C) and Visible</b>	Areas of the building above 8'-9' where use of a ladder 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 or hatches. Visible column on HMIS sheets will say YES.
<b>Access (C) and not Visible</b>	Areas of the building above 8'-9' where use of a ladder is required to reach the ACM. Includes ACM that are not visible to view and require the removal of a building component, including ceilings tiles, access panels and hatches 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 or LIMITED.
<b>Access (D)</b>	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. Evaluation of condition and extent of ACM is limited or impossible, depending on the surveyor's ability to visually examine materials in access D.

#### 4.0 ACTION MATRIX AND DEFINITIONS

Pinchin's evaluation of the viability of a specific asbestos control option is based on the consideration of the condition, accessibility and visibility. 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.

In any building with asbestos, 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 required. In the event of a building alteration, it will be necessary to remove ACM regardless of condition, which is likely to be disturbed by planned renovation, demolition or maintenance work.

The following factors are also considered in making site-specific recommendations for compliance with the regulation and the practical implementation of the Asbestos Management Program:

- ACM in poor condition is not routinely repairable. If an abatement action is necessary, removal is the recommended action (enclosure is a viable option in unusual circumstances);
- Mechanical insulation in fair condition can be repaired or removed based on the following general recommendations applied on a case by case basis (Note: Either repair or removal are legally acceptable options for the treatment of ACM found in fair condition):
  - Repair ACM mechanical insulation found in fair condition in access (B) or access (C exposed) areas;
  - Remove ACM mechanical insulation found in fair condition in access (B) and access (C exposed) areas, where future damage to the ACM is likely to occur; and

- Remove ACM mechanical insulation found in fair condition in access A to eliminate the potential for future damage to the ACM by building users.
- ACM in good condition present in access (A) at a minimum is subject to surveillance, as long as it is not disturbed during future renovation, maintenance or demolition. Pinchin recommends pro-active removal of the ACM in access (A) where damage is possible by ongoing occupant activity. This recommendation exceeds current regulatory requirements;
- For non-friable or manufactured products reported in good condition, Action 7 (surveillance) is the recommended action regardless of Accessibility; and
- Removal of all ACM from a particular area where small quantities of asbestos are present may be advisable since this will negate the need for an Asbestos Management Program in that area. This is a recommendation that needs to be considered on a case by case basis.

With these principles in mind the following Action Matrix Tables establish the recommended asbestos control action. Note that factors not included in the above discussion, such as an upcoming renovation, an owner's policy to remove material, knowledge of upcoming maintenance, etc., may result in a recommendation that differs from this table.

## 5.0 ACTION MATRIX TABLE

The following table outlines the **action** decisions based on the relationship of **access** and **condition**:

Access	Condition			Debris <sup>1</sup>	Assumed Materials
	Good	Fair	Poor		
(A)	Action 5/7 <sup>2</sup>	Action 5/6 <sup>3</sup>	Action 3	Action 1	Action 8
(B)	Action 7	Action 6/5 <sup>4</sup>	Action 3	Action 1	Action 8
(C) Exposed	Action 7	Action 6	Action 4	Action 2	Action 8
(C) Concealed	Action 7	Action 7	Action 4	Action 2	Action 8
(D)	Action 7	Action 7	Action 7	Action 7	Action 8

## 5.1 Action Definitions

The following definitions relate to the Action Matrix Table presented above:

<sup>1</sup> Non-friable and potentially friable ACM found in poor condition, and friable debris (from a non-friable ACM source), shall be treated as poor or debris in the above table.

<sup>2</sup> If friable ACM in access (A)/good condition is not removed action 7 (Manage) is required.

<sup>3</sup> If friable ACM in access (A)/fair condition is not removed action 6 (Repair) is required.

<sup>4</sup> If friable ACM in access (B)/fair condition is likely to be disturbed action 5 (Proactive Removal) is required.

<b>ACTION DEFINITIONS</b>	
<b>Action 1</b>	<p><b>Immediate Clean-Up of Debris that is Likely to Be Disturbed</b></p> <p>Restrict access that is likely to cause a disturbance of the ACM debris and clean up ACM debris immediately. Utilize correct asbestos precautions. This action is recommended for compliance with regulatory requirements. The surveyor will immediately notify the owner of this condition.</p>
<b>Action 2</b>	<p><b>Type 2 Precautions for Entry into Areas with ACM Debris</b></p> <p>At locations where ACM debris can be isolated in lieu of removal or cleaned up (e.g., debris on top of ceiling tiles), use appropriate means to limit entry to the area. Restrict access to the area to persons utilizing Type 2 asbestos precautions. The precautions will be required until the ACM debris has been cleaned up, and the source of the debris has been stabilised or removed.</p>
<b>Action 3</b>	<p><b>ACM Removal Recommended for Compliance</b></p> <p>Remove ACM for compliance with regulatory requirements. Utilize asbestos procedures appropriate to the scope of the removal work.</p>
<b>Action 4</b>	<p><b>Type 2 Precautions for access near damaged ACM where it may be disturbed by access or work.</b></p> <p>Use Type 2 asbestos precautions when accessing the area near to this damaged ACM, and when possible to disturb the ACM. This does not imply Type 2 procedures are required to access the entire room, just when working near to and when there is a possibility of disturbance. Use Action 4 until the ACM is removed. Pinchin recommends this ACM be removed where visible as soon as practicable (Action 3).</p>
<b>Action 5</b>	<p><b>Proactive ACM Removal</b></p> <p>Remove ACM in lieu of repair, or at locations where the presence of asbestos in good condition is not desirable.</p>
<b>Action 6</b>	<p><b>ACM Repair</b></p> <p>Repair/Install jacket on ACM in fair condition, and not likely to be damaged again or disturbed by normal use of the area or room. Upon completion of the repair work treat ACM as material in good condition and implement action 7. If ACM is likely to be damaged or disturbed, during normal use of the area or room, removal is recommended (Action 5).</p>
<b>Action 7</b>	<p><b>Asbestos Management Program with Routine Surveillance</b></p> <p>Implement an Asbestos Management Program, including routine surveillance of ACM. Trained workers or contractors must use appropriate asbestos precautions during disturbance of the remaining ACM.</p>

ACTION DEFINITIONS	
<b>Action 8</b>	<b>Assumed Materials</b>  Implement the Asbestos Management Program for building materials that historically contained asbestos but cannot, or have not, been sufficiently tested for asbestos content. These materials are identified as assumed material (AM). AM are discussed in greater detail in the Assessment Criteria section of the report.  AM are to be treated as ACM and depending on access and condition are subject to the Action Matrix (actions 1 through 7) until bulk sampling confirms the absence of asbestos. Bulk sampling, of AM, is recommended prior the start of renovation, demolition, or maintenance work that will result in a significant disturbance of the AM.

**APPENDIX VIII**  
**LOCATION SUMMARY**

**Client:** Upper Canada District School Board  
**Building Number(s):** 17

**Site:** Schools

## Location List

Building#	Loc #	Floor	Room Prefix	Room Number	Room Suffix	Room Name	No Access	Square Feet	Survey Date	Surveyor	Notes
17	1	1				Classroom		300	2010-12-15	Sarah Young	
17	2	1				Classroom		300	2010-12-15	Sarah Young	
17	3	1				Kindergarten		300	2010-12-15	Sarah Young	
17	4	1				Classroom		300	2010-12-15	Sarah Young	
17	5	1				Classroom		3000	2010-12-15	Sarah Young	
17	6	1				Classroom		300	2010-12-15	Sarah Young	
17	7	1				Classroom		300	2010-12-15	Sarah Young	
17	8	1				Classroom		300	2010-12-15	Sarah Young	
17	9	1				Classroom		300	2010-12-15	Sarah Young	

**Client:** Upper Canada District School Board  
**Building Number(s):** 17

**Site:** Schools

## Location List

Building#	Loc #	Floor	Room Prefix	Room Number	Room Suffix	Room Name	No Access	Square Feet	Survey Date	Surveyor	Notes
17	10	1				Classroom		300	2010-12-15	Sarah Young	
17	11	1				Gym		600	2010-12-15	Sarah Young	
17	12	1				Storage		50	2010-12-15	Sarah Young	
17	13	1				Stage		150	2010-12-15	Sarah Young	
17	14	1				Custodian's Office		60	2010-12-15	Sarah Young	
17	15	1				Corridor		600	2010-12-15	Sarah Young	
17	16	1				Kitchen		60	2010-12-15	Sarah Young	
17	17	1				Mechanical Room		80	2010-12-15	Sarah Young	
17	18	1				Janitor's Room		10	2010-12-15	Sarah Young	



**Client:** Upper Canada District School Board  
**Building Number(s):** 17

**Site:** Schools

## Location List

Building#	Loc #	Floor	Room Prefix	Room Number	Room Suffix	Room Name	No Access	Square Feet	Survey Date	Surveyor	Notes
17	19	1				Girls Washroom		120	2010-12-15	Sarah Young	
17	20	1				Boy's Washroom		120	2010-12-15	Sarah Young	
17	21	1				Janitor's Room		10	2010-12-15	Sarah Young	
17	22	1				Copy Room		100	2010-12-15	Sarah Young	
17	23	1				Bathroom		20	2010-12-15	Sarah Young	
17	24	1				Water Treatment		50	2010-12-15	Sarah Young	
17	25	1				Staff Washroom		10	2010-12-15	Sarah Young	
17	26	1				Staff Room and Corridor		100	2010-12-15	Sarah Young	
17	27	1				Resource Office		100	2010-12-15	Sarah Young	

**Client:** Upper Canada District School Board  
**Building Number(s):** 17

**Site:** Schools

## Location List

Building#	Loc #	Floor	Room Prefix	Room Number	Room Suffix	Room Name	No Access	Square Feet	Survey Date	Surveyor	Notes
17	28	1				Staff Washroom		10	2010-12-15	Sarah Young	
17	29	1				Admin Office and Corridor		50	2010-12-15	Sarah Young	
17	30	1				Principal's Office		50	2010-12-15	Sarah Young	
17	31	1				Resource Office		100	2010-12-15	Sarah Young	
17	32	1				French Office		50	2010-12-15	Sarah Young	
17	33	1				Pod and Corridor		300	2010-12-15	Sarah Young	
17	34	1				Pod and Corridor		300	2010-12-15	Sarah Young	
17	35	1				Portable		250	2010-12-15	Sarah Young	Fibreglass insulation present above ceiling tiles.
17	36	1				Exterior			2010-12-15	Sarah Young	

**APPENDIX IX**

**HMIS ASSESSMENT – CONFIRMED AND PRESUMED ASBESTOS REPORT**



**Client:** Upper Canada District School Board **Site:** Schools

**Building Number(s):** 17

## Confirmed Asbestos and Presumed Asbestos Report

<b>Building #: 17</b>		<b>Building Name: Front of Yonge Public School</b>		<b>Surveyor: Sarah Young</b>		<b>Survey Date: 2010-12-15</b>									
<b>Location #: 1</b>		<b>Location Name: Classroom</b>		<b>Floor: 1</b>		<b>Room #:</b>				<b>Square ft: 300</b>					
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action					Units	Sample	Hazard	Friability
							Good		Fair		Poor				
Other	Window Liner	Transite			A	N	50	(7)				SF	V9000	Confirmed Asbestos	Non-Friable

Building #: 17		Building Name: Front of Yonge Public School		Surveyor: Sarah Young		Survey Date: 2010-12-15								
Location #: 2		Location Name: Classroom		Floor: 1		Room #:				Square ft: 300				
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good	Fair	Poor					
Other	Window Liner	Transite			A	N	50	(7)			SF	V9000	Confirmed Asbestos	Non-Friable

Building #: 17		Building Name: Front of Yonge Public School		Surveyor: Sarah Young		Survey Date: 2010-12-15								
Location #: 3		Location Name: Kindergarten		Floor: 1		Room #:				Square ft: 300				
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good	Fair	Poor					
Other	Window Liner	Transite			A	N	50	(7)			SF	V9000	Confirmed Asbestos	Non-Friable

<b>Building #: 17</b>		<b>Building Name: Front of Yonge Public School</b>		<b>Surveyor: Sarah Young</b>		<b>Survey Date: 2010-12-15</b>								
<b>Location #: 4</b>		<b>Location Name: Classroom</b>		<b>Floor: 1</b>		<b>Room #:</b>				<b>Square ft: 300</b>				
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good	Fair	Poor					
Other	Window Liner	Transite			A	N	50	(7)			SF	V9000	Confirmed Asbestos	Non-Friable

## Confirmed Asbestos and Presumed Asbestos Report

<b>Building #: 17</b>		<b>Building Name: Front of Yonge Public School</b>		<b>Surveyor: Sarah Young</b>		<b>Survey Date: 2010-12-15</b>									
<b>Location #: 5</b>		<b>Location Name: Classroom</b>		<b>Floor: 1</b>		<b>Room #:</b>				<b>Square ft: 3000</b>					
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action					Units	Sample	Hazard	Friability
							Good		Fair		Poor				
Other	Window Liner	Transite			A	N	50	(7)				SF	V9000	Confirmed Asbestos	Non-Friable

<b>Building #: 17</b>		<b>Building Name: Front of Yonge Public School</b>		<b>Surveyor: Sarah Young</b>		<b>Survey Date: 2010-12-15</b>									
<b>Location #: 6</b>		<b>Location Name: Classroom</b>		<b>Floor: 1</b>		<b>Room #:</b>				<b>Square ft: 300</b>					
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability	
							Good		Fair						Poor
Walls	All	Drywall and joint compound				A	Y	50	(7)			SF	V0001	Confirmed Asbestos	Non-Friable
Other	Window Liner	Transite				A	N	50	(7)			SF	V9000	Confirmed Asbestos	Non-Friable

Building #: 17		Building Name: Front of Yonge Public School		Surveyor: Sarah Young		Survey Date: 2010-12-15								
Location #: 7		Location Name: Classroom		Floor: 1		Room #:				Square ft: 300				
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good		Fair	Poor				
Walls	All	Drywall and joint compound			A	Y	50	(7)			SF	S0001	Confirmed Asbestos	Non-Friable
Other	Window Liner	Transite			A	N	50	(7)			SF	V9000	Confirmed Asbestos	Non-Friable

Building #: 17		Building Name: Front of Yonge Public School		Surveyor: Sarah Young		Survey Date: 2010-12-15								
Location #: 8		Location Name: Classroom		Floor: 1		Room #:				Square ft: 300				
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good		Fair	Poor				
Walls	All	Drywall and joint compound			A	Y	50	(7)			SF	S0001	Confirmed Asbestos	Non-Friable
Other	Window Liner	Transite			A	N	50	(7)			SF	V9000	Confirmed Asbestos	Non-Friable

**Client:** Upper Canada District School Board

**Site:** Schools

**Building Number(s):** 17

## Confirmed Asbestos and Presumed Asbestos Report

<b>Building #: 17</b>		<b>Building Name: Front of Yonge Public School</b>		<b>Surveyor: Sarah Young</b>		<b>Survey Date: 2010-12-15</b>									
<b>Location #: 9</b>		<b>Location Name: Classroom</b>		<b>Floor: 1</b>		<b>Room #:</b>				<b>Square ft: 300</b>					
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action					Units	Sample	Hazard	Friability
							Good		Fair		Poor				
Other	Window Liner	Transite			A	N	50	(7)				SF	V9000	Confirmed Asbestos	Non-Friable

Building #: 17		Building Name: Front of Yonge Public School		Surveyor: Sarah Young		Survey Date: 2010-12-15								
Location #: 10		Location Name: Classroom		Floor: 1		Room #:				Square ft: 300				
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good	Fair	Poor					
Other	Window Liner	Transite			A	N	50	(7)			SF	V9000	Confirmed Asbestos	Non-Friable

Building #: 17		Building Name: Front of Yonge Public School		Surveyor: Sarah Young		Survey Date: 2010-12-15								
Location #: 11		Location Name: Gym		Floor: 1		Room #:				Square ft: 600				
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good		Fair					
Walls	All	Texture Coat			C	Y	1200	(7)			SF	V0003	Confirmed Asbestos	Friable

Building #: 17		Building Name: Front of Yonge Public School		Surveyor: Sarah Young		Survey Date: 2010-12-15								
Location #: 13		Location Name: Stage		Floor: 1		Room #:				Square ft: 150				
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good		Fair					
Walls	All	Texture Coat			C	Y	500	(7)			SF	S0003	Confirmed Asbestos	Friable

## Confirmed Asbestos and Presumed Asbestos Report

<b>Building #: 17</b>		<b>Building Name: Front of Yonge Public School</b>		<b>Surveyor: Sarah Young</b>		<b>Survey Date: 2010-12-15</b>									
<b>Location #: 15</b>		<b>Location Name: Corridor</b>		<b>Floor: 1</b>		<b>Room #:</b>				<b>Square ft: 600</b>					
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action					Units	Sample	Hazard	Friability
							Good		Fair		Poor				
Other	Window Liner	Transite		Wall covering	A	N	300	(7)				SF	V9000	Confirmed Asbestos	Non-Friable

Building #: 17		Building Name: Front of Yonge Public School		Surveyor: Sarah Young		Survey Date: 2010-12-15								
Location #: 16		Location Name: Kitchen		Floor: 1		Room #:				Square ft: 60				
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good		Fair					
Ceiling	Bulkhead	Drywall and joint compound			C	Y	30	(7)			SF	S0001	Confirmed Asbestos	Non-Friable

Building #: 17		Building Name: Front of Yonge Public School		Surveyor: Sarah Young		Survey Date: 2010-12-15								
Location #: 22		Location Name: Copy Room		Floor: 1		Room #:				Square ft: 100				
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good		Fair					
Ceiling	All	Drywall and joint compound			C	Y	20	(7)			SF	V0001	Confirmed Asbestos	Non-Friable

Building #: 17		Building Name: Front of Yonge Public School		Surveyor: Sarah Young		Survey Date: 2010-12-15								
Location #: 24		Location Name: Water Treatment		Floor: 1		Room #:				Square ft: 50				
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good		Fair					
Walls	All	Drywall and joint compound			A	Y	50	(7)			SF	V0001	Confirmed Asbestos	Non-Friable

**Client:** Upper Canada District School Board

**Site:** Schools

**Building Number(s):** 17

## Confirmed Asbestos and Presumed Asbestos Report

<b>Building #: 17</b>		<b>Building Name: Front of Yonge Public School</b>		<b>Surveyor: Sarah Young</b>		<b>Survey Date: 2010-12-15</b>											
<b>Location #: 26</b>		<b>Location Name: Staff Room and Corridor</b>		<b>Floor: 1</b>		<b>Room #:</b>		<b>Square ft: 100</b>									
<b>System</b>	<b>Component</b>	<b>Material</b>	<b>Item</b>	<b>Covering</b>	<b>Access</b>	<b>Visible</b>	<b>Condition, Quantity &amp; Action</b>					<b>Units</b>	<b>Sample</b>	<b>Hazard</b>	<b>Friability</b>		
							<b>Good</b>		<b>Fair</b>		<b>Poor</b>						
Walls	All	Drywall and joint compound			A	Y	50	(7)					SF	S0001	Confirmed Asbestos	Non-Friable	
Other	Window Liner	Transite			Wall covering	A	N	50	(7)					SF	V9000	Confirmed Asbestos	Non-Friable
<b>Building #: 17</b>		<b>Building Name: Front of Yonge Public School</b>		<b>Surveyor: Sarah Young</b>		<b>Survey Date: 2010-12-15</b>											
<b>Location #: 27</b>		<b>Location Name: Resource Office</b>		<b>Floor: 1</b>		<b>Room #:</b>		<b>Square ft: 100</b>									
<b>System</b>	<b>Component</b>	<b>Material</b>	<b>Item</b>	<b>Covering</b>	<b>Access</b>	<b>Visible</b>	<b>Condition, Quantity &amp; Action</b>					<b>Units</b>	<b>Sample</b>	<b>Hazard</b>	<b>Friability</b>		
							<b>Good</b>		<b>Fair</b>		<b>Poor</b>						
Walls	All	Drywall and joint compound			A	Y	50	(7)					SF	V0001	Confirmed Asbestos	Non-Friable	
<b>Building #: 17</b>		<b>Building Name: Front of Yonge Public School</b>		<b>Surveyor: Sarah Young</b>		<b>Survey Date: 2010-12-15</b>											
<b>Location #: 29</b>		<b>Location Name: Admin Office and Corridor</b>		<b>Floor: 1</b>		<b>Room #:</b>		<b>Square ft: 50</b>									
<b>System</b>	<b>Component</b>	<b>Material</b>	<b>Item</b>	<b>Covering</b>	<b>Access</b>	<b>Visible</b>	<b>Condition, Quantity &amp; Action</b>					<b>Units</b>	<b>Sample</b>	<b>Hazard</b>	<b>Friability</b>		
							<b>Good</b>		<b>Fair</b>		<b>Poor</b>						
Walls	All	Drywall and joint compound			A	Y	100	(7)					SF	S0001	Confirmed Asbestos	Non-Friable	
Other	Window Liner	Transite			Wall covering	A	N	50	(7)					SF	V9000	Confirmed Asbestos	Non-Friable
<b>Building #: 17</b>		<b>Building Name: Front of Yonge Public School</b>		<b>Surveyor: Sarah Young</b>		<b>Survey Date: 2010-12-15</b>											
<b>Location #: 30</b>		<b>Location Name: Principal's Office</b>		<b>Floor: 1</b>		<b>Room #:</b>		<b>Square ft: 50</b>									
<b>System</b>	<b>Component</b>	<b>Material</b>	<b>Item</b>	<b>Covering</b>	<b>Access</b>	<b>Visible</b>	<b>Condition, Quantity &amp; Action</b>					<b>Units</b>	<b>Sample</b>	<b>Hazard</b>	<b>Friability</b>		
							<b>Good</b>		<b>Fair</b>		<b>Poor</b>						
Walls	All	Drywall and joint compound			A	Y	50	(7)					SF	V0001	Confirmed Asbestos	Non-Friable	



## Confirmed Asbestos and Presumed Asbestos Report

<b>Building #: 17</b>		<b>Building Name: Front of Yonge Public School</b>		<b>Surveyor: Sarah Young</b>		<b>Survey Date: 2010-12-15</b>									
<b>Location #: 32</b>		<b>Location Name: French Office</b>		<b>Floor: 1</b>		<b>Room #:</b>				<b>Square ft: 50</b>					
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action					Units	Sample	Hazard	Friability
							Good		Fair		Poor				
Walls	All	Drywall and joint compound				A	Y	50	(7)			SF	V0001	Confirmed Asbestos	Non-Friable

Building #: 17		Building Name: Front of Yonge Public School		Surveyor: Sarah Young		Survey Date: 2010-12-15											
Location #: 33		Location Name: Pod and Corridor		Floor: 1		Room #:						Square ft: 300					
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action						Units	Sample	Hazard	Friability	
							Good		Fair		Poor						
Walls	All	Drywall and joint compound			A	Y	100	(7)						SF	V0001	Confirmed Asbestos	Non-Friable
Other	Window Liner	Transite			C	N	300	(7)						SF	V9000	Confirmed Asbestos	Non-Friable

<b>Building #: 17</b>		<b>Building Name: Front of Yonge Public School</b>		<b>Surveyor: Sarah Young</b>		<b>Survey Date: 2010-12-15</b>													
<b>Location #: 34</b>		<b>Location Name: Pod and Corridor</b>		<b>Floor: 1</b>		<b>Room #:</b>				<b>Square ft: 300</b>									
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action						Units	Sample	Hazard	Friability			
							Good		Fair		Poor								
Walls	All	Drywall and joint compound			A	Y	100	(7)						SF	V0001	Confirmed Asbestos	Non-Friable		
Other	Window Liner	Transite			C	N	300	(7)						SF	V9000	Confirmed Asbestos	Non-Friable		

Building #: 17		Building Name: Front of Yonge Public School		Surveyor: Sarah Young		Survey Date: 2010-12-15												
Location #: 36		Location Name: Exterior		Floor: 1		Room #:				Square ft:								
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action						Units	Sample	Hazard	Friability		
							Good		Fair		Poor							
Other	Roof	Mastic					C	Y	100	(7)					%	V9500	Presumed Asbestos	Non-Friable
Other	All	Grey Caulking					A	Y	100	(7)					%	S0006	Confirmed Asbestos	Non-Friable

## Confirmed Asbestos and Presumed Asbestos Report

### Legend:

Action			Access		Condition		Sample Number		
(1)	Clean Up of ACM Debris	(2)	Precautions for Access Which may Disturb ACM Debris	A	Accessible to all building occupants	Good	No visible damage or deterioration.	S####	Sample collected
(3)	ACM removal	(4)	Precautions for Work Which may Disturb ACM in Poor Condition	B	Accessible to maintenance and operations staff without a ladder	Fair	Minor, repairable damage, cracking or deterioration.	V####	Material is visually identified to be identical to S###
(5)	Proactive ACM removal (Minimum repair required for fair condition)	(6)	ACM repair	C	Accessible to maintenance and operations staff with a ladder. Also rarely entered, locked areas	Poor	Irreparable damage or deterioration with exposed and missing material	V0000	Known non-asbestos material
(7)	Management program and surveillance			D	Not normally accessible or without demolition	NOTE: See report for full definitions of action, access and condition		V9000	Material is visually identified to contain asbestos
								V9500	Material is presumed to contain asbestos
NOTE: Actions in round brackets ( ) are auto-calculated. Actions in square brackets [ ] are manual								Note: Presumed various materials identified in the report are ACM if not sampled.	

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