LE GROUPE GESFOR POIRIER, PINCHIN

DEFINING Consulting Engineering

FINAL

Assessment of Hazardous Materials

CSC Archambault
242 Gibson Boulevard,
Sainte-Anne-des-Plaines, Quebec

Prepared for:

Public Services and Procurement Canada

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Gesfor Project No.: 1708298

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ASSESSMENT SUMMARY

We, Le Groupe Gesfor Poirier, Pinchin inc., were retained by Public Services and Procurement Canada to conduct an assessment of hazardous materials at CSC Archambault, located at 242 Gibson Boulevard, in Sainte-Anne-des-Plaines, Quebec.

This assessment involved different targeted areas of the building, and aimed to determine the location of asbestos-suspect materials or equipment as well as to establish procedures to be followed for their management. According to the information provided, the building will be renovated.

Summary of Findings

Asbestos:

Asbestos-containing materials (ACM) are present as follows:

- Reinforcing material present on the irregular sections of piping contains chrysotile asbestos in rooms U-127, U-127 A to C, U 117, J-203 and J-202;
- Vermiculite present in concrete block walls contains actinolite asbestos in rooms K-100, K-204N, U-120H.1, J-203 and J-202;
- 12 in. by 12 in., grey vinyl floor tiles with white stripes in room U-127.

For complete information on all hazardous materials as well as on the recommendations and procedures to follow for their management, refer to the body of the report and the attached appendices.

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

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1.0 MANDATE

We, Le Groupe Gesfor Poirier, Pinchin inc. (Le Groupe Gesfor), were retained by Public Services and Procurement Canada (Client), represented by Ms. Isabelle Perreault, to conduct an assessment of hazardous materials at CSC Archambault, located at 242 Gibson Boulevard, in Sainte-Anne-des-Plaines, Quebec.

The survey was carried out on April 25, 2022, in the targeted rooms.

The assessment targeted part of the building and aimed to determine the location of asbestos-suspect materials or equipment and to establish procedures to be followed for their management. According to the information provided, the building will be renovated.

For the purpose of this mandate, hazardous materials are defined as follows:

- Asbestos;
- Lead;
- Mould.

As part of this assessment, Le Groupe Gesfor took into consideration the 2021-2022 annual inspection register for the medium-security sector.

2.0 LEGAL REFERENCES AND GUIDELINES

In Quebec, hazardous materials are governed by the following legislation:

- Safety Code for the construction industry, CQLR, c. S-2.1, r. 4 (SCCI);
- Act Respecting Occupational Health and Safety, CQLR, c. S-2.1 (AROHS);
- Regulation respecting occupational health and safety, CQLR, c. S-2.1, r. 13 (RROHS);
- Regulation respecting hazardous materials, CQLR, c. Q-2, r. 32 (RRHM);
- Transportation of Dangerous Substances Regulation, CQLR, c. C-24.2, r. 43.

In Canada, hazardous materials are governed by the following legislation:

- Canadian Environmental Protection Act, S.C. 1999, c. 33;
- Canada Consumer Product Safety Act (S.C. 2010, c. 21);
- Hazardous Products Act, L.R.C., 1985, c. H-3;
- Departmental Policy (DP 057), *Asbestos Management*, 1997
- Canada Occupational Health and Safety Regulations, SOR/86-304 (COHSR);
- Hazardous Products Regulations, SOR/2015-17 (HPR);

- Surface Coating Materials Regulations, SOR/2016-193;
- Workplace Hazardous Materials Information System (WHMIS).

2.1 Asbestos

The management of asbestos-containing materials is governed here by the Canada Labour Code – Part II (R.S.C. [1985], c. L-2), the Canadian Occupational Health and Safety Regulations – Part X (COHSR) (SOR/86-304), Departmental Policy PM 057 *Asbestos Management*, 1997, and by the Technical guideline to asbestos exposure management programs, written on January 16, 2018, by Employment and Social Development Canada.

All aspects that are not covered by federal legal and standard texts are covered by the legal reference texts for asbestos in Quebec, namely the Act Respecting Occupational Health and Safety, CQLR, c. S-2.1, the Regulation respecting occupational health and safety or the RROHS, CQLR, c. S-2.1, r. 13 and the Safety Code for the construction industry or the CSSI, CQLR, c. S-2.1, r. 4. The requirements for asbestos appear more specifically in Division IX.I of the RROHS (sections 69.1 to 69.17) and in section 3.23 of the SCCI.

Regarding asbestos management, Departmental Policy DP-057 requires that materials containing asbestos be reassessed every year.

In these last two legal texts, a material is defined as containing asbestos when its asbestos content is at least 0.1%.

Refer to Appendix I of this report for more details on the legal reference texts for asbestos, and Appendix II for the Departmental Policy.

2.2 Lead

The RRHM, the RROHS, the COHSR and the SCCI do not indicate a legal limit for authorized lead concentrations in paints in buildings.

Consequently, for the purpose of this assessment, when the lead content of a paint is below the laboratory detection limit, it does not represent a danger to the health of workers.

It should be noted that, according to the World Health Organization (WHO), certain groups of individuals (in particular fetuses, infants, children and pregnant women) are generally more susceptible to the harmful effects of lead, even at low concentrations[1].

[1] Limit value of 90 mg/kg according to the Surface Coating Materials Regulations, SOR/2016-193.

Moreover, according to section 3 of the RRHM, a paint containing lead and its substrate are considered hazardous materials representing a risk for the environment, when the lead concentration obtained at the end of the leaching test is equal to or greater than 5 mg/L.

2.3 Mould

The Commission des standard, de l'équité, de la santé et de la sécurité du travail (CNESST), the Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST)[2] and the Institut national de santé publique du Québec (INSPQ)[3] acknowledge that mould growth on materials inside buildings poses a risk for adverse health effects in occupants. The IRSST and the INSPQ have each published a guide on indoor mould exposure. Both guides propose methods to assess the extent of contamination and recommend that contaminated materials be decontaminated following appropriate protocols, such as those laid out by the *Mould Guidelines for the Canadian Construction Industry* (CCA 82 – 2004) published by the Canadian Construction Association (CCA)[4].

3.0 QUALIFICATIONS OF RESOURCES

The survey was carried out by Ms. Marie-Eve Bellefeuille, technician.

The project was supervised by Ms. Jocya Pellerin, Eng., senior project manager, under the direction of Mr. Vincent Soulière, Eng., PMP.

Personnel from Le Groupe Gesfor who perform assessments have completed training on asbestos and other hazardous materials in buildings, as well as on the appropriate sampling techniques.

The technician was accompanied by Mr. Éric Trottier, of CSC.

4.0 DESCRIPTION OF THE BUILDING

The Client indicated that the Archambault Institution – Medium Security unit was built between 1968 and 2012. The institution's 33 buildings consist of two or three storeys, with a total site area of approximately 200,000 square feet (ft^2).

In this report, the different targeted sectors of each building are presented in a distinct manner in order to establish a description of your planned work.

[2] Institut de recherche Robert-Sauvé en santé et en sécurité du travail. *Bioaerosols in the Workplace: Evaluation, Control and Prevention Guide.* Montreal: IRSST – Direction des communications, 2001.
[3] Institut national de santé publique du Québec. *Health Risks Associated with the Indoor Presence of Moulds.* Montreal: INSPQ, 2002.
[4] Canadian Construction Association. *CCA 82 – 2004: Mould Guidelines for the Canadian Construction Industry.* Ottawa, 2004.

5.0 METHODOLOGY

5.1 General

Le Groupe Gesfor entered each room, hallway, service area, etc., targeted for the assessment, to determine the presence of hazardous materials. When applicable, 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. Le Groupe Gesfor relied on the as-built drawings, when these were available.

5.2 Asbestos

5.2.1 Sampling of Materials

Le Groupe Gesfor verified the presence, location and condition of the targeted asbestos-suspect materials.

We sampled asbestos-suspect materials according to the bulk sampling method, which consists in taking one or several representative samples of materials that may contain asbestos.

All the materials were sampled according to the requirements of the *Guide explicatif sur les nouvelles dispositions réglementaires – Gestion sécuritaire de l'amiante*, written by the Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), dated May 2013. This guide explains the application of the new regulation in Quebec. It refers to many existing standards, including the United States Environmental Protection Agency (USEPA) protocol, dated December 1985.

The CNESST guide establishes, amongst other things, the number of samples to be taken in order to obtain an acceptable probability percentage to determine whether or not a material contains asbestos. As a result, similarly built areas (SBA) (equivalent to sections, wings or floors of a building) were defined for serial sampling of certain types of materials.

As an example, the Guide mentions that two (2) samples of flocking must be taken per SBA, and that materials mixed on-site, such as roughcast and plaster, must be sampled nine (9) times per SBA. For heat insulation, it is recommended to take three (3) samples per straight section of a single system and one (1) sample per irregular section of a single system. Finally, for manufactured products, it is necessary to take one (1) sample per visually distinct type of material.

5.2.2 Sample Analysis

The analysis of bulk samples, except for glue underneath vinyl floor tiles, was performed by polarized light microscopy (PLM) according to Method 244 established by the Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST) or according to an equivalent method, as stipulated in the Regulation Respecting Occupational Health and Safety.

However, if a sample from a single series taken in an SBA or from a single mechanical system was found to contain asbestos, analysis of the other samples of said SBA or said system was not performed. We considered that all samples from this series taken in the SBA or from the system in question contained asbestos.

If walls and ceilings are found to contain asbestos in at least one (1) sample from the same SBA, bulkheads consisting of the same material will also be considered to contain asbestos.

Bulk samples of glue underneath vinyl floor tile were analyzed by transmission electron microscopy (TEM) according to Method ELAP 198.4 from the Wadsworth Center of the New York State Department of Health. According to the IRSST, using TEM confirms the absence of asbestos fibres in these types of materials.

The laboratories responsible for the analyses are recognized by the IRRST and participate in an interlaboratory quality control program with regards to methods for identifying asbestos in bulk samples.

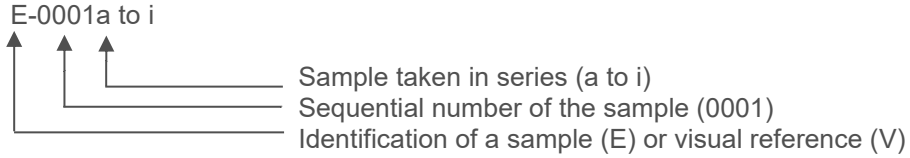
5.2.3 Sample Nomenclature

Samples are identified by a unique sequential number beginning with 0001. For samples taken in series, the number is accompanied by a suffix, which consists of a lowercase letter (for example, for nine (9) samples of a single material of an SBA, the letters “a” to “i” are used).

In the asbestos register in Appendix III-A, all collected samples are identified with the prefix “E” and visual references (materials within the building that are observed to be identical to collected samples) are identified with the prefix “V”. The analysis result of a collected sample is applicable to all visual references of the same material.

Here is an example of our nomenclature:

Numbering of samples of asbestos-suspect materials



5.2.4 Materials Excluded from the Survey

Certain materials were not sampled. The required documentary evidence for these materials are referenced in the column “Documentary Evidence” of the asbestos register in Appendix III of this report.

5.3 Lead

5.3.1 Sampling of Materials

Le Groupe Gesfor sampled paints likely to contain lead applied to the concrete block walls at the places where work is planned in the building.

We sampled targeted paints likely to contain lead according to the bulk sampling method, which consists in taking one (1) representative sample of each paint colour per substrate (type of material on which the paint is applied). It was necessary to take approximately 25 g of paint per sample, excluding the substrate.

5.3.2 Sample Analysis

In order to determine the lead concentration of a painted surface or surface coating, samples are analyzed using inductively coupled plasma mass spectrometry in accordance with ICP-MS_MA.200 – Mét. 1.2 from the Centre d’expertise en analyse environnementale du Québec (CEAEQ).

Leaching tests are then carried out on all paints with a lead concentration of 100 mg/kg or more. Below this level, even if all the lead was soluble, it would be impossible to exceed the limit of 5 mg/L as defined by the RRHM. This analysis is conducted using method MA.100 – Lix.com. 1.1 from the CEAEQ in order to determine whether these paints should be considered hazardous materials.

The laboratory responsible for this type of analysis is accredited by the ministère de l’Environnement et de la Lutte contre les changements climatiques (MELCC). The results are expressed in milligrams per kilogram (mg/kg).

5.3.3 Sample Nomenclature

Paint samples likely to contain lead are identified by the letter "P" followed by a unique sequential number starting at 01 in the certificates of analysis and on the drawings.

5.3.4 Material and Equipment Excluded from the Survey

A number of materials and equipment that may contain lead have not been identified due to limitations imposed by the scope and methodology of the assessment. If found in the building, they are presumed to contain lead until proven otherwise. These materials and equipment include:

- Electrical components, including wiring connectors, grounding conductors, and solder;
- Solder on pipe connections;
- Glazing on ceramic tiles.

5.4 Mould

5.4.1 Assessment Strategy

Le Groupe Gesfor carried out a visual inspection of the accessible areas to determine whether any materials were possibly contaminated by mould growth. This part of the assessment is based on the appearance of the materials, such as stains (stained drywall, blackened wood), discolouration (faded carpet) or other types of degradation (peeling paint, cracked plaster), and on the presence of suspicious odours. Le Groupe Gesfor did not carry out any intrusive inspections to try to find any hidden mould growth. When necessary, materials likely to be contaminated with mould growth were sampled.

6.0 FINDINGS

For complete details on the hazardous materials, the actions to be taken and the protective measures to follow, please refer to the register presented in Appendix III of this report. The information from this assessment is presented room by room in the asbestos register.

Sample analysis results are presented in Appendix IV-A and IV-B of this report.

The sampled materials are identified on the location drawings in Appendix V of this report. These drawings were provided by the Client.

7.0 RECOMMENDATIONS

All our recommendations are based on the findings obtained from our survey and on the information in the Safety Code for the construction industry and our professional judgment.

7.1 Asbestos

Our recommendations are based on the findings and on the information in the Safety Code for the construction industry in effect in Quebec.

7.1.1 Recommendations Based on the Scope of Work

Conduct the following work under asbestos conditions:

U-127

- Low Risk
  - Remove asbestos-containing vinyl floor tiles for the new opening in the wall;
- Moderate Risk
  - With a drill equipped with a dust collector, drill into the concrete block partitions filled with asbestos-containing vermiculite for the installation of new mesh dividers;

U-120H.1

- Moderate Risk
  - With a drill equipped with a dust collector, drill into the concrete block partitions filled with asbestos-containing vermiculite for the installation of a new timer on the wall;

K-204N.1 (Mechanical Room)

- Moderate Risk
  - With a drill equipped with a dust collector, drill into the concrete block partitions filled with asbestos-containing vermiculite to remove equipment and for the installation of new equipment on the walls;
- Moderate Risk
  - Remove asbestos-containing heat insulation using the glove bag method.

7.1.2 General Requirements

No law or regulation requires systematic removal of asbestos-containing or presumed asbestos-containing materials. However, if these materials are damaged, the legislation of June 6, 2013, requires that they be repaired if they have the potential to release asbestos fibres into the ambient air.

If internal personnel is given the task of performing work in Asbestos conditions, it is necessary to prepare a work plan for the repair or removal of the asbestos-containing or presumed asbestos-containing materials. This plan must include asbestos abatement training. According to the regulation in effect, training is mandatory for any person likely to handle asbestos-containing or presumed asbestos-containing materials. The work plan must also include a procedure detailing the chosen methods of repair and removal.

If the internal personnel does not carry out the work in Asbestos conditions, a company specializing in the field of asbestos abatement must be hired to carry out the work.

If major work is required by a specialized contractor on materials presumed to contain asbestos, it is mandatory that these materials be sampled and analyzed beforehand, as stipulated in the legislation. However, if minor work is required and can be conducted by maintenance staff following an asbestos procedure, sampling and analysis of materials presumed to contain asbestos are not necessary.

More broadly, the legislation requires that asbestos-suspect materials and products be verified for the presence of asbestos before work that may generate asbestos dust is undertaken. Consequently, all materials that were not characterized previously or as part of this assessment must be sampled before any work is undertaken.

Finally, legislation requires the establishment of an asbestos register, which must be updated every two years for accessible flocking and heat insulation. Updating all other materials concurrently is recommended. It is also necessary to update the register when work in the presence of asbestos is carried out. The employer must keep the register for as long as the building is under their authority and must make it available to workers within the establishment and their representatives.

7.2 Lead

7.2.1 Worker Protection

The lead content of the paint is below the laboratory detection limit value. Therefore, this paint does not represent a risk to the health of workers. Work involving the paint can thus be carried out without any special conditions for lead.

7.2.2 Environmental Protection

The assessed paint has a lead content of less than 100 mg/kg. Leaching tests were not performed since the limit of 5 mg/L cannot be exceeded as defined in the RRHM. As a result, the paint is considered non-leachable and is not a hazardous material according to the RRHM. It therefore poses no risk to the environment and can be disposed of as general waste in an engineered landfill.

7.3 Mould

No mould growth was observed. If mould is uncovered inside wall cavities during hand demolition, use appropriate precautions and protect workers using methods that comply with the *Mould Guidelines for the Canadian Construction Industry* (CCA-82 2004), by the Canadian Construction Association (CCA).

8.0 CONCLUSION

Following the assessment carried out at CSC Archambault of Public Services and Procurement Canada, Le Groupe Gesfor recommends proceeding with the management of hazardous materials using the recommendations of this report and remains at the disposal of the Client to provide support in these actions.

9.0 LIMITATIONS

9.1 Contractual Limitations

This report is subject to the clauses and conditions governing the agreement concluded between the Client and Le Groupe Gesfor.

Information provided by Le Groupe Gesfor is intended for Client use only. Le Groupe Gesfor will not provide results or any information to any party whoever they may be, unless required by law. Any use by a third party of the reports or documents authored by Le Groupe Gesfor or any reliance by a third party on or decisions made by a third party based on findings described in said documents, is the sole responsibility of said third parties. Le Groupe Gesfor accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted. No other warranty is either expressed or implied by Le Groupe Gesfor.

The work performed by Le Groupe Gesfor was conducted in accordance with generally accepted engineering or scientific practices in this geographical area at the time the work was performed. No warranty is either expressed or implied, or intended by the agreement executed with the Client, or by furnishing oral or written reports or findings. The Client acknowledges that inaccessible components and concealed conditions may vary from those encountered or inspected. Le Groupe Gesfor can only comment on the environmental conditions observed on the date(s) the assessment was performed. The assessment was limited to those areas of concern identified by the Client or outlined in Le Groupe Gesfor's proposal. Other areas of concern may exist but were not investigated within the scope of this assignment.

Le Groupe Gesfor makes no other representations whatsoever, including those concerning the legal significance of its findings or as to other legal matters mentioned in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. In regard to legal compliance, it should be noted that laws and regulations are subject to interpretation and these interpretations may change over time. Le Groupe Gesfor accepts no responsibility for consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The liability of Le Groupe Gesfor or its staff will be limited to the lesser of the fees paid or actual damages incurred by the Client. Le Groupe Gesfor will not be responsible for any consequential or indirect damages. Le Groupe Gesfor is only liable for damages resulting from negligence of Le Groupe Gesfor. Le Groupe

Gesfor will not be liable for any losses or damage if the Client has failed, within a period of three (3) years following the date upon which the claim is discovered within the meaning of the *Civil Code of Quebec*, to commence legal proceedings against the Consultant to recover such losses or damage.

9.2 Limitations of the Assessment

The often-complex nature of building construction makes access to certain components difficult and consequently imposes limits to the present survey. Certain existing conditions may not have been identified, not being apparent during the survey. Nevertheless, the observations of the site, the measurements and analyses are considered to be sufficiently detailed that Le Groupe Gesfor could proceed to a general assessment of the hazardous materials in the areas visited. Le Groupe Gesfor guarantees that the observations and conclusions found in this document were prepared in compliance with the general methods of estimation of risks related to hazardous materials. Furthermore, Le Groupe Gesfor believes that the information gathered during the survey with regard to this property is exact according to the current standards defined in the industry, without guaranteeing that they are complete or precise. No other guarantee is expressed or implied.

As it is difficult to verify each of the sections of materials, Le Groupe Gesfor proceeded to their identification based on bulk sampling conducted previously and the results of their analyses, as well as visual observation and professional judgment.

The identification work has the following limitations:

1. The survey did not include the buried piping or underground services insulated with materials that may contain hazardous materials found in service spaces or shafts;
2. The survey did not include inaccessible components and materials present in the walls and ceilings;
3. The materials visually recognized as being free of hazardous materials were not sampled;
4. The quantities or dimensions mentioned in this assessment are approximate;
5. The presence of hazardous materials was not verified inside equipment (such as furnaces, fire doors and brakes);
6. Stored products that are likely to contain hazardous materials were not checked during the assessment.

APPENDIX I

General Information on Asbestos

1.0 HISTORY

Asbestos is a mineral described as very tough, even indestructible, due to its high tensile strength and its resistance to the corrosive action of chemical products and very high temperatures. In addition to these substantial qualities of thermal and electrical insulation, its cost is relatively low. Once the fibres are extracted, they do not have to undergo a sophisticated transformation to be put on the market.

During the Second World War, the use of asbestos greatly increased. During the Second World War, the use of asbestos greatly increased. In 1950, the Underwriters Laboratories of Canada (ULC)[1] approved asbestos as fireproof insulation. Since 1950, it has had various uses in automobile brakes, fireproofing in construction, heat insulation, etc. In the 1970s, its use decreased due to its potential health risk, but it could still be found until 1985.

The only type of asbestos extracted in Canada is chrysotile (white asbestos), while amosite and crocidolite (white and blue asbestos, respectively) were imported principally from South Africa. Even if Canada produces only chrysotile, amosite and crocidolite can be found in as great a proportion in materials. As the prices of the three types of asbestos are very similar on the Canadian market, engineers and architects often use one or the other according to their preferences.

2.0 ASBESTOS MANAGEMENT

Several laws and regulations have been adopted with the goal of protecting individuals against the risks related to the exposure to asbestos fibres. These risks consist principally in the appearance of diseases such as fibrosis, asbestosis, lung cancer and mesothelioma. Furthermore, the concentration of fibres in the air, the type of asbestos and the duration of exposure are significant factors in the development of diseases related to asbestos. Finally, asbestos exposure in conjunction with smoking increases the risk of developing lung cancer by 90 times.

The Act Respecting Occupational Health and Safety (CQLR, c. S-2.1), the Regulation Respecting Occupational Health and Safety (CQLR, c. S-2.1, r. 13), and the Safety Code for the construction industry (CQLR, c. S-2.1, r. 4), are the legal texts that govern the management of asbestos-containing materials in Quebec.

Quebec legislation stipulates that the employer must take the necessary measures to protect the health and ensure the safety and physical integrity of workers. Amongst other things, employers must:

- Implement a register before June 6, 2015, that identifies asbestos-containing flocking and heat insulation in buildings built before February 15, 1990, and May 20, 1999, respectively;

[1] Canadian subsidiary of an American association of insurance companies.

- Ensure that all asbestos-suspect materials and products are checked before any work likely to produce dust is undertaken, and that this information is included in the register;
- Ensure that the register is then updated every year for exposed friable asbestos-containing materials;
- Keep the register as long as the building is under their authority and must make it available to workers and their representatives working within the establishment.

Furthermore, Sections 22.1, 217.1 and 219 of the Criminal Code (R.S.C., 1985, c. C-46) on due diligence require any person directing work to take the necessary measures to avoid bodily injuries and professional diseases.

Building managers can proactively manage the risks of exposure to asbestos fibres by having asbestos-suspect materials characterized, adequately training the personnel responsible for performing the work, repairing or removing damaged asbestos-containing materials and developing and implementing an asbestos management program.

3.0 DEFINITIONS

Actinolite	Type of asbestos from the amphibole group.
Asbestos	Fibrous form of mineral silicates belonging to metamorphic rocks of the serpentine and amphibole groups.
Amosite	Type of asbestos from the amphibole group.
Libby Amphiboles	Mainly winchite-, richterite- and tremolite-type asbestos fibres found naturally at the Libby mine in Montana, USA, where vermiculite is mined.
Heat Insulation	Insulation in the form of parging cement, paperboard or glass fibre used to insulate mechanical components such as piping, tanks, boilers or ventilation systems.
Chrysotile	Type of asbestos from the serpentine group.
Drywall Joint Compound	Coating used to make the joints between the drywall panels during the construction of drywall partitions.
Roughcast	Rough cement coating used on masonry.
Crocidolite	Type of asbestos from the amphibole group.
Decorative coating	Cement product used for decorative purposes, such as stucco.

Flocking	Friable sprayed-on material to cover a surface. This includes fireproof, thermal and acoustic insulation as well as certain decorative coatings.
Manufactured	Describes a finished product obtained by industrial processing.
Mixed on Site	Describes mixing several raw materials or semi-finished products on site in order to obtain a finished product.
Fibre Cement Panel	Panel consisting of very fine fibres agglomerated with cement binder.
Parging Cement	Insulation in the form of paste, made of cement, sand and asbestos used to isolate irregular sections (elbows, valves, tees, joints, etc.) of piping in a building.
Plaster	Material used in the construction of walls and ceilings. Plaster is generally applied on metal lathing or blocks of terracotta. It is normally composed of roughcast (one or two layers) and a layer of finish called “plaster of Paris”.
Presumed to Contain Asbestos	As per Division IX.I of the RROHS, describes an asbestos-suspect material, which, upon visual verification by a qualified person, is considered to be asbestos-containing until proven otherwise (by a technical data sheet, materials safety data sheet or laboratory analysis).
Asbestos-suspect	As per Division IX.I of the RROHS, describes an asbestos-suspect material due to its date of fabrication or installation, or the method(s) used in its fabrication.
Tremolite	Type of asbestos from the amphibole group.

APPENDIX II

Departmental Policy DP 057 - Asbestos Management

DP 057
1997-12-03
ASBESTOS MANAGEMENT

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Appendix 6 - Work Procedures

1. BACKGROUND

1. Public Works and Government Services Canada shall comply with all federal, provincial, territorial and municipal regulations, statutes and requirements with regard to asbestos containing materials (ACM) in government owned or leased buildings and facilities.
2. This departmental policy and code of practice are established in response to the requirement for a comprehensive approach to departmental asbestos management. This will ensure that the responsibilities of the department, as building owner, tenant, landlord and employer, with respect to safety and health issues and environmental control issues, are fully addressed.
3. This departmental policy and code of practice specify the role and responsibilities of the Regional Asbestos Coordinator and provide standard methods and procedures to address the following:
    1. identification, assessment and inventory of ACM in buildings and facilities;
    2. notification to employees, client departments and contractors regarding the presence of friable asbestos;
    3. reassessment of friable ACM on an annual basis;
    4. maintenance of departmental information regarding ACM;
    5. training modules for PWGSC personnel, based on the responsibilities and duties to be undertaken in relation to asbestos management;
    6. identification, classification, monitoring, inspection and control of asbestos-

related work undertaken by departmental personnel or contractors.

2. POLICY

Public Works and Government Services Canada shall ensure the control of asbestos containing materials (ACM). The responsibilities of the department, as building owner, tenant, landlord and employer, with respect to safety and health issues and environmental control issues, shall be fully addressed and in accordance with the *Canada Labour Code, Part II*, the *Canada Occupational Safety and Health Regulations, Part X - Hazardous Substances*, and applicable provincial and territorial occupational health and safety and environmental protection legislation.

3. SCOPE

This departmental policy and code of practice apply to all managers, supervisors and employees where the duties required to be undertaken involve the removal, repair or maintenance of ACM. This departmental policy and code of practice apply to any building or facility in which friable material, that may contain asbestos, has been used, and all repairs, alterations or maintenance of any building or facility where ACM may exist.

4. DEFINITIONS

See Annex A.

5. ROLES AND RESPONSIBILITIES

See Annex B.

6. GUIDELINES

1. Implementation

The Director, Corporate Environment, Safety and Health shall provide the framework for departmental asbestos management through the provision of approved departmental training modules to meet requirements, and the issue of standard methods and procedures. Training requirements shall be reviewed on an annual basis.

The Regional Asbestos Coordinator shall implement the departmental methods and standards within the region and shall ensure that initial surveys for asbestos are conducted, inventories are developed and properly maintained, and that training requirements for departmental employees are identified and that the training is provided.

2. Monitoring

The Director, Corporate Environment, Safety and Health shall monitor asbestos management to ensure that requirements are met, and that procedures are established and implemented as required throughout the department.

The Regional Asbestos Coordinator and the Regional Manager responsible for Safety and Health shall review the progress of asbestos surveys and training, and

the overall implementation of asbestos management and subsequent safety and health issues, on a quarterly basis.

Training requirements, notifications, records, procedures and other safety and health issues related to asbestos management shall be reviewed on a quarterly basis by the network of Workplace Safety and Health Committees and Representatives.

Issues related to asbestos management that cannot be resolved at the workplace level shall be reported to the Regional Safety and Health Committee. Issues that cannot be resolved at the regional level shall be reported to the National Safety and Health Committee.

7. PROCEDURES

Annex C - Code of Practice

8. COMPLIANCE

Compliance with this departmental policy is mandatory and in accordance with all existing safety and health legislation. The refusal of an employee at any level to comply with this departmental policy or with the provisions of the prescribed codes, standards, regulations, and/or departmental policies will be considered as misconduct.

9. REFERENCES

Acts and Regulations:

- Canada Labour Code, Part II:
  - *Part II of the Canada Occupational Safety and Health Regulations, (COSH), Building Safety*,
  - *Part X of the Canada Occupational Safety and Health Regulations, (COSH), Hazardous Substances*,
  - *Part XIV of the Canada Occupational Safety and Health Regulations, (COSH), Materials Handling*.

Treasury Board Publications:

- *Occupational Health Evaluation Standard*;
- *Procedures for occupational exposure to asbestos*;
- Canadian National Master Specifications, Sections 13280, 13281 and 13282.

PWGSC Publications:

- *DP 007 - Health and Safety Policy*
- *DP 017 - Personal Protective Equipment for Employees*
- *DP 018 - Hazardous Occurrence Investigating, Reporting and Recording*

Other Publications:

- Provincial and Territorial Occupational Health and Safety Legislation;
- Provincial and Territorial Environmental Protection Legislation.

10. INQUIRIES

Departmental:

Director
Corporate Environment, Safety and Health

Regional:

Regional Managers responsible for Safety and Health

R. A. Quail
Deputy Minister and
Deputy Receiver General for Canada

Annex A - Definitions

Asbestos Containing Material (ACM) (Matériau contenant de l'amiante (MCA)) means any material found to contain asbestos that is at or above the limit defined by provincial standards, as determined by the standard Polarized Light Microscopy (PLM) method for the analysis of bulk samples.

Department (ministère) means Public Works and Government Services Canada (PWGSC).

Employee (employé) means a person employed by the department.

Employer (employeur) means a supervisor who is responsible for the work of one or more employees at the workplace.

Friable asbestos product (produit friable à base d'amiante) means ACM, that when dry, can be crumbled, pulverized or powdered by hand pressure. This definition also includes dust or debris arising from non-friable materials that are, or will become, crumbled, pulverized or powdered, i.e., asbestos containing plaster disturbed by demolition. Friable asbestos-suspect products include: Sprayed asbestos products, (fireproofing, thermal insulation, acoustic insulation or decorative products), applied in 1974 or earlier; Acoustic or texture plaster applied in 1983 or earlier; Mechanical insulation installed in 1983 or earlier, (jacketed or not); Compressed mineral fibre ceiling tiles installed in 1983 or earlier.

Hazardous occurrence (situation dangereuse) means an event occurring at a PWGSC managed building or worksite, or through the course of an employee's work that results

in, or has the potential to result in, a fatality, injury, property damage or an escapement of a hazardous material. For the purpose of investigating, recording and reporting of hazardous occurrences, the following are included under this term: Critical Incidents; Disabling Injuries; Non-Disabling Injuries; Minor Injuries; Minor Occurrences and Near-Misses.

Manager in charge of worksite (gestionnaire responsable du lieu de travail) means the person to whom the supervisor reports directly.

Person in charge (personne responsable) means a qualified person, appointed by management, to ensure the safe and proper conduct of an operation, or the work of employees.

Personal protective equipment (équipement de protection individuelle) means any clothing, equipment or device worn or used by a person to protect that person from injury or illness.

Qualified person (personne qualifiée) means, with respect to a specified duty, an individual who, because of knowledge, training and experience, is qualified to safely and properly perform the duty.

Region or Regional, (région ou régional) when utilized in Safety and Health Departmental Policies and Codes of Practice, refers to all Regions and includes the National Capital Area.

Senior employer representative (représentant supérieur de l'employeur) means the individual with the delegated authority to make and carry out decisions of an operational nature, on behalf of the department, for the workplace.

Supervisor (superviseur) means the person at the workplace to whom the employee(s) report(s) directly.

Workplace (lieu de travail) means any place where an employee is engaged in work for the department.

Annex B - Roles and Responsibilities

1. **Branch/Agency Heads** are accountable for the implementation of this departmental policy within their areas of responsibility. This accountability is further referenced in *DP 007, Annex A - Accountability Framework for the Health and Safety Function*.

   In addition, Regional Directors General are responsible for appointing a qualified person as the Regional Asbestos Coordinator.

2. **Senior Employer Representatives** are responsible for ensuring that all workplaces within their area of responsibility implement the requirements of this departmental policy and code of practice.
3. The **Director, Corporate Environment, Safety and Health** is responsible for:

1. monitoring the departmental program to ensure that requirements for asbestos management are met, and that procedures are established and implemented as required throughout the department;
2. approving training modules prior to implementation, and ensuring that an annual review of training requirements is undertaken;
3. liaising, on behalf of the department, with regulatory bodies, central agencies, and provincial bodies on matters related to asbestos management.

4. The **ADM, Human Resources Branch**, is responsible for ensuring that the appropriate procedures are implemented so that Asbestos-Related Work Records are maintained on employee files for a period of thirty (30) years.
5. The **Regional Asbestos Coordinator** is responsible for:
    1. implementing the requirements for departmental asbestos management within the region;
    2. arranging for initial asbestos surveys and the reassessments of buildings and facilities;
    3. preparing standard notification letters regarding the existence of friable asbestos, for issue by Property, Facility or Project Managers;
    4. maintaining a data base of survey and reassessment information relating to the existence of ACM;
    5. issuing copies of asbestos inventory and assessment reports and updates to Property and Facility Managers;
    6. classifying asbestos-related project work on behalf of Project Managers, and arranging for the preparation of specifications when required;
    7. ensuring that Property and Facility Managers are aware of the requirements of asbestos management, and ensuring that standard procedures are implemented for asbestos work, required training is provided, current information relating to ACM is available and records are properly maintained;
    8. coordinating training requirements for departmental employees and maintaining records of training;
    9. maintaining all records relating to asbestos management within the region and asbestos work undertaken in the region, i.e., asbestos inventory and assessment reports, training records, notification letters and work records;
    10. reviewing all work requirements that have been classified as Type 3, and undertaking the direction of the work when required;
    11. assisting in the identification of circumstances where an employee is, or may be, exposed to airborne asbestos during work not subject to the precautions required by the Asbestos Management Code of Practice and ensuring that any required hazard assessments are undertaken;
    12. ensuring that the Regional Manager responsible for Safety and Health has been notified in situations where an employee has been exposed to a hazardous occurrence where an investigation may be required;
    13. reviewing asbestos-related work requirements, at random, to ensure that work has been properly classified, and that all required specifications have been addressed;
    14. reviewing, on a quarterly basis, the progress of asbestos surveys and training, and implementation of asbestos management, and safety and health issues with the Regional Manager responsible for Safety and Health.
6. **Property Managers, Facility Managers and Project Managers** shall implement this departmental policy and code of practice as required, based on the nature of their function and the duties for which they are responsible, by:

1. ensuring that the requirements for departmental asbestos management are fully implemented within their area of responsibility;
2. reviewing all maintenance work requirements against survey information to determine the possibility of friable asbestos being disturbed, and classifying the work based on the approved criteria;
3. notifying, in writing, Workplace Safety and Health Committees and Representatives, (tenant departments and PWGSC), and employees and contractors of the existence of friable ACM, and providing updates on conditions as modifications or changes are made;
4. maintaining asbestos inventory, assessment and reassessment reports and ensuring that a copy of this information is maintained in a location that is accessible to maintenance staff and contractors;
5. obtaining the approval of the Regional Asbestos Coordinator prior to arranging for the removal or repair of damaged or deteriorated friable ACM;
6. submitting all Type 3 work requirements to the Regional Asbestos Coordinator for review prior to arranging for the work to be undertaken;
7. consulting the Regional Asbestos Coordinator, when necessary, to determine the impact of a specific project with regards to ACM;
8. maintaining a stock of required equipment for work classified as Type 1 and Type 2;
9. identifying and providing a suitable storage area for waste resulting from asbestos work, and arranging for periodic waste removal.

7. **Managers in Charge of Worksites and Supervisors** shall implement this departmental policy and code of practice as required by the nature of the tasks for which they are responsible, by:
    1. ensuring that employees have been provided with the required training to undertake the work;
    2. ensuring that the appropriate personal protective equipment, tools and clothing required for the work are provided;
    3. ensuring that testing, maintenance and storage routines are established and implemented for all personal protective equipment and tools;
    4. identifying a qualified person to undertake the duties of the "Person in Charge";
    5. ensuring that an Asbestos-Related Work Record Form (PWGSC-TPSGC 55) is completed for each period of work, and that a copy of this record is submitted to Human Resources Branch to be placed on employee files, and a copy is submitted to the Regional Asbestos Coordinator;
    6. ensuring that all employees required to perform work classified as Type 2 or Type 3 undertake health evaluations as per the requirements of *DP 059 - Health Evaluations - Safety and Health, PWGSC*;
    7. notifying the Asbestos Coordinator of any hazardous occurrence that has taken place or when their has been a requirement to undertake emergency asbestos-related work for a particular situation.
8. The **Person in Charge** is responsible for:
    1. ensuring that workers on site have been provided with the required training for the work to be undertaken;
    2. ensuring that all required equipment is on site before commencement of the work;
    3. ensuring that the appropriate personal protective equipment, tools and clothing required for the work are worn and/or utilized;
    4. ensuring that the appropriate procedures for the work are implemented and that all workers are aware of, and comply with, established procedures;

5. ensuring that all procedures for inspection and air monitoring are implemented based on the classification of the work and the specified requirements;
6. immediately informing the Manager in Charge of the Worksite or the Supervisor of a hazardous occurrence involving asbestos-related work.

9. **Regional Managers responsible for Safety and Health** are responsible for:
    1. monitoring worksites periodically to ensure that standard procedures are implemented for asbestos work, required training is provided, current information relating to ACM is available and records are properly maintained;
    2. investigating specific workplace complaints concerning asbestos and asbestos-related work and taking appropriate action;
    3. providing assistance and advising the Asbestos Coordinator of specific safety and health issues and requirements related to asbestos management;
    4. reviewing, on a quarterly basis, with the Regional Asbestos Coordinator the implementation of asbestos management and safety and health issues.
10. **Workplace Safety and Health Committees and Representatives** are responsible for:
    1. participating in hazard investigations to determine the risks and hazards associated with asbestos-related work requirements;
    2. monitoring workplaces to ensure that the requirements for asbestos-related work have been addressed, i.e., training has been provided; personal protective equipment is provided and properly utilized; records are maintained and procedures are implemented;
    3. reporting immediately, specific workplace complaints related to asbestos management, to the Regional Manager responsible for Safety and Health;
    4. undertaking a review of training requirements for asbestos-related work on an annual basis.
11. **Employees** are responsible for:
    1. applying the appropriate practices, procedures and equipment for the type of asbestos-related work;
    2. wearing and/or utilizing and maintaining the required personal protective equipment, clothing and tools;
    3. reporting immediately, to the Person in Charge, the Manager in Charge of the Worksite, or the Supervisor, all known or suspected conditions or activities that are in violation of approved practices and procedures and that may cause a hazardous occurrence.

Annex C - Code of Practice

1. Asbestos Surveys, Assessments and Inventories

To ensure that a complete inventory of ACM that includes friable ACM and the principal types of non-friable ACM is developed, it is necessary to undertake a thorough survey of all government-owned or leased facilities. Once ACMs are identified through surveys and assessments of the materials are made,

inventories shall then be established and maintained.

Leasing Space and Friable Asbestos

When space is considered for lease in a building that was constructed before 1983, PWGSC shall request and obtain from the lessor, an asbestos survey that identifies all friable asbestos materials located within the structure.

This survey shall be signed by and conducted under the direction of a qualified person, competent in asbestos control, i.e., a Professional Engineer, a Certified Industrial Hygienist, or a Registered Occupational Hygienist.

If friable asbestos is present the following rules shall be applied in considering the space:

1. the department shall not lease space when there is friable asbestos material located directly within the space to be occupied;
2. the department may lease space when friable asbestos is present elsewhere in the building, provided that there is an asbestos management program in place that meets the basic requirements of the department, as described herein by the departmental policy and code of practice for asbestos management.

Asbestos Surveys

The Regional Asbestos Coordinator shall undertake the planning and coordination of all asbestos surveys. A detailed survey of each location within the region shall be undertaken initially, in order to determine the presence of ACM, including all friable asbestos materials, applications of floor finishes and asbestos reinforced cement products, i.e., asbestos cement sheeting and piping. This survey shall be conducted on a floor-by-floor and room-by-room basis.

The Regional Asbestos Coordinator shall ensure that all surveys are conducted under the direction of a qualified person competent in asbestos control, i.e., Professional Engineer, Certified Industrial Hygienist, or Registered Occupational Hygienist.

The Regional Asbestos Coordinator shall ensure that each survey is signed off by the qualified person who directed the survey.

Assessment of Asbestos Materials

ACM that is identified during the survey shall be assessed, and recommendations regarding the action to be taken shall be determined as per the specifications provided in *Appendix 1 - Evaluation of Asbestos Containing Materials (ACM) and Recommendations for Control*.

Appendix 1 provides specific criteria for the assessment of materials based on condition and accessibility, and provides an Action Matrix, which is utilized in determining the recommended action to control ACM based on the particular circumstances. Detailed information regarding the requirements to properly

undertake each action are also provided.

NOTE: Analysis of materials to determine asbestos content shall be performed by Health Canada, or by private laboratories accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) of the U.S. National Institute of Science and Technology (NIST), in the use of the Polarized Light Microscopy method. The analysis of bulk samples shall be performed to the detection limits as indicated in Appendix 1 - Detection Limit of Bulk Analysis.

Asbestos Inventories

Once surveys have been completed and assessment of materials has been made, the Asbestos Coordinator shall ensure that this inventory information is entered into the PWGSC Asbestos Management Database. The Asbestos Coordinator shall update this information as changes are made at the various locations, or where new information identifies the existence of ACM not previously identified.

The Asbestos Coordinator shall ensure that Completed Asbestos Inventory, Assessment Reports and Reassessment Reports are forwarded to the respective Property or Facility Manager, and that current copies of these documents are made available at a location in each building or facility that is accessible to maintenance staff, contractors and workplace safety and health committee members and representatives.

NOTE: Property and Facility Managers shall notify the Regional Asbestos Coordinator prior to arranging for, or undertaking, removal or repair of damaged or deteriorated friable asbestos materials identified by the Asbestos Inventory and Assessment.

2. Notification of Friable Asbestos

The Regional Asbestos Coordinator shall provide written notice to Property and Facility Managers concerning the presence of friable ACM, as per the findings of surveys and assessments.

For those locations where a survey and assessment are pending, and the presence of friable ACM is known, the Regional Asbestos Coordinator shall provide interim written notice to the Property or Facility Manager.

Upon receipt of Asbestos Inventory and Assessment reports, the Regional Asbestos Coordinator shall provide updated written notification to Property and Facility Managers.

Property and Facility Managers shall ensure that written notice is provided to the following groups:

- Workplace Safety and Health Committees and Representatives;
- Maintenance Employees;
- Contractors, Inspectors. (Those who may enter parts of the building or facility where friable ACM may be present, i.e., telecommunications firms, boiler maintenance contractors, inspectors, etc.) See Appendix 2 -

Contractor Notification and Acknowledgement.

Copies of all notices issued to Property and Facility Managers shall be maintained by the Regional Asbestos Coordinator.

3. Reassessment of Friable Asbestos

The Regional Asbestos Coordinator shall arrange for an annual reassessment of all friable ACM present in exposed locations.

Copies of reassessment reports shall be distributed to Property and Facility Managers. Property and Facility Managers shall provide updated information to the following groups:

- Workplace Safety and Health Committees and Representatives;
- Maintenance Employees;
- Contractors, Inspectors. (Those who may enter parts of the building or facility where friable ACM may be present, i.e., telecommunications firms, boiler maintenance contractors, etc.) See Appendix 2 - Contractor Notification and Acknowledgement.

Property and Facility Managers shall notify the Regional Asbestos Coordinator prior to arranging for, or undertaking, removal or repair of damaged or deteriorated friable ACM.

4. Training

Training shall be provided to PWGSC personnel, as required, based on their roles and responsibilities related to asbestos management. Training shall be delivered in modules in order to target specific requirements and related duties, and to avoid duplication.

The duration of training and mode of delivery shall be determined by the Director, Corporate Environment, Safety and Health, in consultation with the National Safety and Health Committee.

The Regional Asbestos Coordinator and the Human Resources Branch, shall maintain records of training.

Training requirements shall be reviewed annually by the network of Workplace Safety and Health Committees and Representatives.

Asbestos Management Training

Asbestos management training shall be provided to the Regional Asbestos Coordinators, Property and Facility Managers, and Project Managers. This training will include an introduction to the asbestos inventory and assessment reports, health hazards of asbestos exposure, regulations, the Asbestos Management Code of Practice, classification of asbestos work, asbestos project control, and emergency procedures.

Asbestos Procedures Training

Training shall be provided to maintenance workers who will perform Type 1 or Type 2 work. The training will include an introduction to the asbestos inventory and assessment reports, health hazards of asbestos exposure, regulations, the Asbestos Management Code of Practice, Type 1 and Type 2 work practices, and disposal procedures. Upon completion of the training, workers shall sign a form acknowledging the training received. See Appendix 3 - *Certificate of Training for Asbestos-Related Work*.

Respirator Training

Respirator training shall be provided to all those who will perform Type 2 work, and to employees who will perform Type 1 work and request a respirator. The training will cover limitations of use, fitting, and maintenance of respirators. Persons provided with a respirator will be fit-tested with the assigned respirator, using the CSA irritant smoke method. See Appendix 6 - *Respirator Fitting, Inspection, Cleaning and Disinfecting* for procedures and related information regarding respirators.

NOTE: Employees who will utilize a respirator shall be required to undertake a medical evaluation as per the requirements of *DP 059 - Health Evaluations - Safety and Health, PWGSC*

Asbestos Awareness Training

Training shall be provided to all maintenance and operations personnel who may work near asbestos materials.

This training shall also be required for those who supervise workers or contractors who may work near asbestos materials.

The module will introduce the asbestos inventory and assessment reports, health hazards of asbestos exposure, the Asbestos Management Code of Practice, and emergency procedures.

This training shall also be made available to Workplace Safety and Health Committee Members and Representatives.

5. Identification, Classification and Control of Asbestos-Related Work

Maintenance Work

Property and Facility Managers, or their designates, are responsible to review all maintenance work for the possibility of the disturbance of ACM when required work is undertaken.

When there are friable or non-friable ACMs in the area, and this material will be disturbed by the work, then the work shall be determined as asbestos-related

work and classified as Type 1, Type 2, or Type 3. Appropriate procedures shall be implemented based on the classification of the work. See Appendix 5 - *Classification of Asbestos-Related Work*, and Appendix 6 - *Work Procedures*.

If there are friable or non-friable ACMs in the area of maintenance, that will be disturbed by the intended work, the Property or Facility Manager or designate shall classify the work as Type 1, Type 2, or Type 3. Work determined to be a Type 3 classification shall be forwarded to the Asbestos Coordinator for review.

The Regional Asbestos Coordinator shall review all work that is classified as Type 3 asbestos work. The Regional Asbestos Coordinator shall determine, based on the requirements and specific circumstances of the work, the degree of his/her personal involvement in the direction of the work.

NOTE: If there are friable ACMs in the area of maintenance, and it has been determined that these materials will not likely be disturbed by the maintenance work, the Property or Facility Manager shall inform maintenance staff and/or the contractor of the presence of friable ACMs prior to the commencement of work.

On completion of any maintenance work which involves asbestos removal or repair, a report will be provided to the Regional Asbestos Coordinator which indicates the asbestos-related work that has been completed. See Appendix 4 - Asbestos-Related Work Record. The Regional Asbestos Coordinator will then update the information in the inventory as required, and ensure that this information is distributed as required.

NOTE:

- Property and Facility Managers shall maintain a stock of the approved equipment required for Type 1 and Type 2 asbestos work, where PWGSC staff perform asbestos work.
- When asbestos work is performed by PWGSC staff, asbestos debris shall be packaged in double-bagged containers or other suitable containers, by those completing the project. These containers shall be held at a pre-determined, secure location in the building.
- The Property or Facility Manager shall arrange for periodic collection of asbestos waste containers from this location.

Renovation and Construction Work

Project Managers shall consult the Regional Asbestos Coordinator prior to undertaking renovation or construction work. The Regional Asbestos Coordinator shall review the asbestos survey reports for the possible impact on asbestos materials, prior to all renovation and construction work.

Prior to commencement of projects that include the demolition of plaster installed prior to December 1983, testing of the plaster for asbestos shall be undertaken, unless previous comprehensive testing in the building has shown this plaster to be free of asbestos. Records of plaster test results shall be maintained by the Asbestos Coordinator and the Property or Facility Manager along with the asbestos surveys of the building.

The Regional Asbestos Coordinator, on behalf of the Project Manager, shall classify the work as Type 1, Type 2, or Type 3.

In Ontario, the Project Manager, through the Regional Asbestos Coordinator, shall obtain a Designated Substance Report (a prescribed listing of asbestos, lead, silica, and other hazardous materials) prior to tendering the work.

The Regional Asbestos Coordinator, on behalf of the Project Manager, shall arrange for specifications to be prepared for asbestos work, following the National Master Specification. Alterations to specifications, in order to accommodate specific provincial requirements, shall be determined when required.

Services related to the design and preparation of specifications shall be performed by Consultants or Engineers with the appropriate training, experience and insurance for asbestos-related work. Insurance shall specifically include professional liability with pollution coverage.

When there are friable asbestos materials in the renovation area, and the Regional Asbestos Coordinator has determined that these materials are not likely to be disturbed by the work, the maintenance staff or the contractor must be notified of the presence of friable asbestos materials. The contractor shall be required to sign the Contractor Notification and Acknowledgement Form prior to commencement of the work. See Appendix 2 - *Contractor Notification and Acknowledgement*.

At the completion of any project work which alters the amount or condition of friable ACM, a report will be provided to the Regional Asbestos Coordinator which indicates the work that has been completed. See Appendix 4 - *Asbestos-Related Work Record*. The Regional Asbestos Coordinator will then update information in the inventory, and ensure that this information is distributed as required.

6. Asbestos Work Records and Medical Surveillance

Managers in Charge of Worksites and Supervisors shall ensure that an Asbestos-Related Work Record is completed for employees performing Type 2 or Type 3 work, or entering a Type 2 or Type 3 work area. A work record shall be completed for each period of work.

Managers in Charge of Worksites and Supervisors shall ensure that a copy of each work record is forwarded to Human Resources Branch and to the Regional Asbestos Coordinator. See Appendix 4, for a sample of the Asbestos-Related Work Record.

Human Resources Branch shall maintain Asbestos-Related Work Reports on employee files for a period of thirty (30) years. Asbestos-Related Work Reports shall be maintained by the Office of the Regional Asbestos Coordinator for a period of thirty (30) years.

All PWGSC employees who will perform Type 2 or Type 3 work shall undertake a medical evaluation as per the requirements of *DP 059 - Health Evaluations -*

Safety and Health, PWGSC.

7. Asbestos Work Procedures

Type 1, Type 2, and Glove Bag Procedures

Standard procedures for performing Type 1, Type 2, and Glove Bag asbestos work are provided in Appendix 6 - *Work Procedures*.

Type 3 Procedures

Type 3 procedures are not included in the standard procedures provided in Appendix 6 - *Work Procedures*.

Procedures for Type 3 work are developed for the particular work to be undertaken, and the specific circumstances and worksite. These procedures shall be developed in compliance with the National Master Specification, Section 13282, Asbestos Abatement (maximum precautions).

Emergency Procedures

Procedures for asbestos work, required on an emergency basis, as an immediate response to floods, pipe breaks, ceiling collapses, or other emergencies that affect asbestos materials, are provided in Appendix 6 - *Work Procedures*. These procedures shall be implemented to protect those undertaking the work, and to protect all others from, or limit exposure to, airborne asbestos.

Emergency procedures, indicated in Appendix 6 - *Work Procedures*, shall be followed as closely as possible, in the event of an emergency situation.

Emergency Plans

An Emergency Plan that corresponds with the emergency procedures for the specific site shall be developed and implemented, to ensure that safety and health requirements are addressed in the event of emergency situations that require work shut-down and evacuation.

8. Asbestos Work Inspection and Air Monitoring

Type 1 and Type 2 Work

Type 1 and Type 2 work shall be subject to the standard maintenance or project inspection requirements for non-asbestos work. Asbestos-specific air monitoring or inspection is not mandatory.

Type 3 Work

The Regional Asbestos Coordinator, on behalf of the Project Manager, may arrange for the inspection and air monitoring during Type 3 asbestos projects. These services shall be provided by consultants or engineers with the appropriate training, experience and insurance for asbestos-related work.

When Type 3 work is to be undertaken in an occupied building, or in a building in use, daily inspection and air monitoring shall be required. If the building is not occupied, inspection shall be at critical stages of the work, unless provincial standards require daily inspection, as necessary in Quebec and British Columbia.

All Type 3 removal projects shall be subject to final clearance air testing. The clearance criteria shall be a maximum fibre concentration of 0.01 fibre/ml of air, as determined by the standard Phase Contrast Microscope (PCM) method.

9. Air Monitoring and Bulk Analysis

Air Monitoring for Hazard Assessment

When the Regional Asbestos Coordinator is requested to, and has determined the requirement for, air monitoring under normal conditions of building use (i.e., away from asbestos work), the measurements shall be made by the Transmission Electron Microscopy (TEM) analytical method.

NOTE: Air monitoring shall not be used as the primary method for the assessment of hazard from asbestos materials.

Air Monitoring During Asbestos Work

The Regional Asbestos Coordinator shall arrange for air monitoring during Type 3 work, as required, to confirm the safety of work practices and the effectiveness of work area isolation. These measurements shall be made by the Phase Contrast Microscope (PCM) method recognized by Human Resources Development Canada (HRDC) - Labour Programs and provincial occupational health and safety authorities.

PCM measurements shall be made by National Institute of Occupational Safety and Health (NIOSH) method 7400, except work in British Columbia and Quebec, where provincial analytical methods are in place.

Analysis of PCM samples shall be performed by Health Canada or individuals or organizations successfully participating in a recognized external quality control program.

Bulk Sample Collection and Analysis

Procedures for collection and labeling of bulk samples for asbestos analysis are detailed in Appendix 6 - *Work Procedures*.

Analysis of materials to determine asbestos content shall be performed by Health

Canada or by private laboratories accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) of the U.S. National Institute of Science and Technology (NIST). The laboratories shall report to the limits of detection as indicated in Appendix 1 - *Detection Limit of Bulk Analysis*.

Maintenance of Records

The Regional Asbestos Coordinator shall maintain copies of all reports and records relating to testing, sampling and analysis undertaken for buildings and facilities within the region.

10. Hazard Investigation

When an employee is or may be exposed to airborne asbestos as a result of direct disturbance of asbestos materials during maintenance, renovation or construction work not subject to the appropriate precautions required by the Asbestos Code of Practice, or by similar inadvertent direct contact not subject to the appropriate precautions, the Regional Asbestos Coordinator shall appoint a qualified person to conduct a hazard assessment. This assessment must consider the potential hazard, and must conclude as to whether the hazardous material could be present.

The Regional Asbestos Coordinator shall notify, in writing, the Workplace Safety and Health Committee or Representatives of this assessment.

The assessment shall determine the potential hazard, and must conclude as to whether the hazardous material could be present as an airborne hazard, at a level of at least 50% of the exposure limit. When it has been determined that the hazardous material could be present at a level of at least 50% of the exposure limit, a control plan must be instituted.

Control Plans for Asbestos

When an assessment has determined that asbestos could be present as an airborne hazard, at a level of at least 50% of the exposure limit, a control plan must be established and implemented to address the following requirements:

- a record of where asbestos materials are located;
- written procedures for control;
- medical surveillance, when applicable;
- training of employees.

The control plan must be reviewed at least once per year, or as new information is received that changes the requirements of the plan.

Annex C - Appendix 1 - Evaluation of Asbestos Containing Materials (ACM) and Recommendations for Control

1. Assessment of Condition

Spray Applied Fireproofing, Insulation and Texture Finishes

In evaluating the condition of ACM spray applied as fireproofing, thermal insulation or texture, decorative or acoustic finishes, the following criteria apply:

GOOD	Surface of material shows no significant signs of damage, deterioration or delamination. Up to one percent visible damage to surface is allowed within range of GOOD. Evaluation of sprayed fireproofing requires the surveyor to be familiar with the irregular surface texture typical of sprayed asbestos products. GOOD condition includes unencapsulated or unpainted fireproofing or texture finishes, where no delamination or damage is observed, and encapsulated fireproofing or texture finishes where the encapsulation has been applied after the damage or fallout occurred.
POOR	Sprayed materials show signs of damage, delamination or deterioration. More than one percent damage to surface of ACM spray.

In observation areas, where damage exists in isolated locations, both GOOD and POOR condition may be reported. The extent or percentage of each condition will be recorded on the survey or reassessment form.

NOTE: FAIR condition is not utilized or considered as a valid criterion in the evaluation of sprayed fireproofing, sprayed insulation, or texture coat finishes.

The evaluation of ACM spray applied as fireproofing, non-mechanical thermal 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 area are advised to be watchful for ACM DEBRIS prior to accessing or working above ceilings in areas of buildings with ACM, regardless of the reported condition.

Mechanical Insulation

In evaluating the condition of mechanical insulation (on boilers, breeching, ductwork, piping, tanks, equipment etc.) the following criteria are used:

GOOD	Insulation is completely covered in jacketing and exhibits no evidence of damage or deterioration. No insulation is exposed. Includes conditions where the jacketing has minor surface damage (i.e., scuffs or stains), but the jacketing is not penetrated.
FAIR	Minor penetration damage to jacketed insulation (cuts, tears, nicks, deterioration or delamination) or undamaged insulation that has never been jacketed. Insulation is exposed but not showing surface disintegration. The extent of missing insulation ranges should be minor to none.
POOR	Original insulation jacket is missing, damaged, deteriorated or

	delaminated. Insulation is exposed and significant areas have been dislodged. Damage cannot be readily repaired.

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. In these circumstances, it is not possible to observe each foot of mechanical insulation from all angles.

Non-Friable and Potentially Friable Materials

Non-friable materials generally have little potential to release airborne fibres, even when damaged by mechanical breakage. However, some non-friable materials, i.e., exterior asbestos cement products, may have deteriorated so that the binder no longer effectively contains the asbestos fibres. In such cases of significantly deteriorated non-friable material, the material will be treated as a friable product.

2. Evaluation of Accessibility

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

ACCESS (A)	Areas of the building within reach (from floor level) of all building users. Includes areas such as gymnasiums, workshops, and storage areas where activities of the building users may result in disturbance of ACM not normally within reach from floor level.
ACCESS (B)	Frequently entered maintenance areas within reach of maintenance staff, without the need for a ladder. Includes: frequently entered pipe chases, tunnels and service areas or areas within reach from a fixed ladder or catwalk, i.e., tops of equipment, mezzanines.
ACCESS (C) EXPOSED	Areas of the building above 8'0" where use of a ladder is required to reach the ACM. Only refers to ACM materials that are exposed to view, from the floor or ladder, without removing or opening other building components such as ceiling tiles, or service access doors or hatches. Does not include infrequently accessed service areas of the building.
ACCESS (C) CONCEALED	Areas of the building which require the removal of a building component, including lay-in ceilings and access panels into solid ceiling systems. Includes rarely entered crawl spaces, attic spaces, etc. Observations are limited to the extent visible from the access points.
ACCESS (D)	Areas of the building behind inaccessible solid ceiling systems, walls, or mechanical equipment, etc., where demolition of the

ceiling, wall or equipment, etc., is required to reach the ACM. Evaluation of condition and extent of ACM is limited or impossible, depending on the surveyor's ability to visually examine the materials in Access D.

3. ACM Debris

Debris from Friable ACM

The presence of fallen ACM is noted separately from the presumed friable ACM source (sprayed fireproofing, thermal insulation, texture, decorative or acoustic finishes or mechanical insulation) and is referred to as DEBRIS.

Debris from Damaged Non-Friable ACM

The presence of fallen ACM, from damaged non-friable ACM, is reported separately from the non-friable ACM source. Only fallen non-friable ACM, that has become friable, is reported as 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 ceiling areas of buildings with ACM, regardless of the reported presence or absence of DEBRIS.

4. Action Matrix and Action Descriptions

The Asbestos Management Program requires the following responses:

- Immediate clean-up of DEBRIS that is likely to be disturbed;
- The removal, repair or enclosure of friable ACM in POOR or FAIR condition where continued deterioration will result in DEBRIS that is likely to be disturbed.

The following factors shall be considered in making site-specific recommendations for compliance with the regulation, and for the practical implementation of asbestos management:

3. 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).

4. Mechanical insulation in FAIR condition will be repaired or removed based on the following general recommendations, applied on a case by case basis.

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.

5. ACM in GOOD condition present in ACCESS (A) can be managed by surveillance, as long as it is not disturbed by future renovation, maintenance or demolition. Proactive removal of the ACM in ACCESS (A) will be considered where damage is possible by ongoing occupant activity (accidental or intentional).
6. Non-friable or manufactured products are considered in the action matrix as follows:
    - Non-friable and manufactured products reported in POOR condition, or friable DEBRIS resulting from the deterioration of non-friable ACM, are treated as friable materials and the appropriate Action, depending on accessibility, is determined from the Action Matrix for friable ACM.
    - For non-friable or manufactured products reported in GOOD condition, Action 7 (surveillance) is recommended regardless of Accessibility.

7. Remove all ACM from a particular area where small quantities of asbestos are present and removal will negate the need for the use of the Asbestos Management Program in that area.

The Action Matrix provided below establishes the recommended asbestos control action. The ACTIONS are described in full following the matrix.

ACTION MATRIX TABLE

FRIABLE ACM

ACCESS	CONDITION			DEBRIS
	GOOD	FAIR	POOR	
(A)	ACTION 5/7[1]	ACTION 5/6[2]	ACTION 3	ACTION 1
(B)	ACTION 7	ACTION 6/5[3]	ACTION 3	ACTION 1
(C) exposed	ACTION 7	ACTION 6	ACTION 4	ACTION 2

(C) concealed	ACTION 7	ACTION 7	ACTION 4	ACTION 2
(D)	ACTION 7	ACTION 7	ACTION 7	ACTION 7

[1]If material in **ACCESS (A)/GOOD** condition is not removed **ACTION 7** is required.
[2]If material in **ACCESS (A)/FAIR** condition is not removed **ACTION 6** is required.
[3]Remove **ACM** in **ACCESS (B)/FAIR** condition if **ACM** is likely to be disturbed.

ACTION 1	**Immediate Clean-up of Debris That is Likely to be Disturbed** Restrict access that is likely to cause a disturbance of the ACM DEBRIS and clean up ACM DEBRIS immediately. Utilize correct asbestos procedures. This action is required for compliance with regulatory requirements. The surveyor should immediately notify the Regional Asbestos Coordinator of this condition.
ACTION 2	**Entry Into Areas With ACM Debris - Type 2 Precautions** At locations where ACM DEBRIS can be isolated in lieu of removal or cleaned up, use appropriate means to limit entry to the area. Restrict access to the area to persons utilizing Type 2 asbestos-work precautions. The precautions will be required until the ACM DEBRIS has been cleaned up, and the source of the DEBRIS has been stabilized or removed.
ACTION 3	**ACM Removal Required for Compliance** Remove ACM for compliance with regulatory requirements. Utilize asbestos procedures appropriate to the scope of the removal work.
ACTION 4	**Access into Areas Where ACM is Present and Likely to be Disturbed by Access - Type 2 Precautions** Use Type 2 asbestos precautions when entry or access into an area is likely to disturb the ACM. ACTION 4 must be used until the ACM is removed (Use ACTION 1 or 2 if DEBRIS is present).
ACTION 5	**Proactive ACM Removal** Remove ACM in lieu of repair, or at locations where the presence of asbestos in GOOD condition is not desirable.
ACTION 6	**ACM Repair** Repair ACM found 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, implement ACTION 5.

ACTION 7	**Routine Surveillance** Institute routine surveillance of the ACM. Trained workers or contractors must use appropriate asbestos precautions (Type 1, Type 2 or Type 3) during disturbance of the remaining ACM.

5. Detection Limit of Bulk Analysis

Asbestos containing material, (ACM), is defined as any material found to contain asbestos at or above the limit for an asbestos containing material, (ACM), set provincially, as determined by the standard Polarized Light Microscopy method for the analysis of bulk samples. The provincially regulated limits, or generally accepted guidelines, to consider a material as an asbestos containing material, (ACM), subject to asbestos in buildings regulation, is provided as follows:

MINIMUM CONCENTRATION TO CONSIDER AS AN ASBESTOS CONTAINING MATERIAL (BY PROVINCE)	
PROVINCE/REGION	
NEWFOUNDLAND NOVA SCOTIA PRINCE EDWARD ISLAND NEW BRUNSWICK ALBERTA BRITISH COLUMBIA	1.0%
ONTARIO (includes part of National Capital Region) SASKATCHEWAN (no published concentration)	0.5%
QUEBEC (includes part of National Capital Region) MANITOBA	0.1%

Annex C - Appendix 2 - Contractor Notification and Acknowledgement

Form PWGSC-TPSGC 16

Annex C - Appendix 3 - Certificate of Training for Asbestos-Related Work

Form PWGSC-TPSGC 15

Annex C - Appendix 4 - Asbestos-Related Work Record

Form PWGSC-TPSGC 55

Annex C - Appendix 5 - Classification of Asbestos-Related Work

The following criteria shall be utilized in determining the classification of asbestos work.

TYPE 1 WORK

- Installation or removal of a non-friable ACM with a hand tool.
- Disturbance of a non-friable ACM with a powered tool equipped with a HEPA dust collection device.
- Removal of drywall materials where joint filling materials contain asbestos.
- Removal or replacement of ten or less asbestos-containing compressed mineral fibre type ceiling tiles.
- Collecting samples of asbestos-suspect friable materials.
- Working close to friable sprayed asbestos, where the material may be affected by the work activities.

TYPE 2 WORK

- Removal or replacement of more than ten asbestos-containing compressed mineral fibre type ceiling tiles.
- Entry into ceiling spaces, crawlspaces, pipe tunnels, etc., where friable asbestos debris is present.
- In British Columbia, removal of drywall installed before 1980.
- Minor removal of friable ACM. Type 2 removal is limited to a maximum per work period of:
    - In British Columbia - 0.1 m^2 surface area, or 3 lineal metres of pipe insulation;
    - In Quebec - 0.03 m^2 of Debris;
    - All Others - 1 m^2 of surface area.
- Repair of asbestos mechanical insulation. (No limit is imposed as to the amount of repair permitted under Type 2 conditions.)

TYPE 3 WORK

- More than minor removal or disturbance of friable ACM.
- Use of a power tool on non-friable ACM without HEPA exhausted dust collection.

- The spray application of an encapsulant or sealer to friable asbestos surfacing materials.
- Disturbance of the ductwork and air handling equipment serving or passing through areas of buildings with sprayed asbestos fireproofing or insulation.
- Repair, alteration or demolition of a boiler, furnace, kiln, or similar equipment with asbestos-containing refractory.

Annex C - Appendix 6 - Work Procedures

TYPE 1 - Work Procedures

For locations of non-friable ACM, refer to the current version of the Asbestos Inventory and Assessment Report.

NOTE: These Type 1 procedures assume the non-friable material can be removed with relatively little loose dry dust released. Generation of debris is permissible as long as the debris can be well wetted before being removed. If the work will release more than a trivial amount of dry loose dust, do not proceed. The Regional Asbestos Coordinator will determine which of Type 1, 2 or 3 procedures are appropriate.

1. **Equipment**

   All equipment must be on site before proceeding.

   1. *Vacuum*

      Use of a vacuum is optional. Wet cleaning methods may be used in place of a vacuum. If a vacuum is used it must be equipped with a high efficiency particulate (HEPA) filter and all brushes, fittings, etc. The vacuum must only be opened in an enclosure, following Type 2 procedures, or in a laboratory exhaust hood. The vacuum exterior should be carefully wet cleaned after emptying. A HEPA filter is at least 99.97% efficient in collecting a 0.3 micrometre particle.

   2. *Respirators*

      Use of a respirator is optional for Type 1 work. However, a respirator is strongly advised for work on sheet flooring, any type of ceiling tile, any other work performed overhead. Respirators shall be supplied by the employer upon request. The type of respirator supplied shall be a half-face respirator with HEPA filter. Training in the proper use of the respirator and qualitative fit testing shall also be provided. Respirators must be NIOSH approved and acceptable to the Provincial Authorities having jurisdiction. Respirators shall be used according to the written procedures for use, provided to the worker during training sessions. Filters must be changed after 24 hours of wear, or sooner if breathing resistance increases.

      NOTE: Employees are required to undertake a medical evaluation as specified by *DP 059 - Health Evaluations - Safety and Health, PWGSC* prior to being trained in

the proper use of respirators.

3. *Protective Clothing*

   Reusable or disposable clothing may be used. Non-disposable clothing with visible asbestos contamination shall be cleaned with a HEPA vacuum and laundered as asbestos contaminated. Disposable clothing and respirator filters will be disposed of as asbestos waste.

4. *Other Equipment*
   - plastic sheet (0.15 mm (6 mil) polyethylene) - to serve as a drop sheet;
   - pump sprayer with mister nozzle, or alternate method to wet material;
   - labelled, yellow asbestos waste bags, 0.15 mm (6 mil) - for all asbestos waste, disposable equipment, plastic, etc.;
   - small tools and cleaning supplies - e.g., scouring pads, sponges, brushes, buckets, etc.

2. Other Protective Measures

1. Do not eat, drink or smoke in the work area.
2. On leaving work area, proceed to washroom and wash all exposed skin on hands and face.

3. Preparation

1. Before disturbing non-friable asbestos materials, (wherever practical) cover floor and surfaces below work with polyethylene sheeting to catch debris.
2. Wherever dust on a surface is likely to be disturbed, remove with HEPA vacuum or damp cloth.

4. Execution

1. Removal of Vinyl Asbestos Floor Tile
   1. Do not use electric powered scrapers.
   2. Start removal by wedging a heavy duty scraper in seam of two adjoining tiles and gradually force edge of one tile up and away from floor. Do not break off pieces of tile, but continue to force balance of tile up.
   3. Continue removal of tiles using hand tools, removing tiles intact wherever possible. When adhesive is spread heavily or is quite hard, it may prove easier to force scraper through tightly adhered areas by striking scraper handle with a hammer using blows of moderate force while maintaining scraper at 25° to 30° angle to floor. When this technique does not loosen tile, removal can be simplified by heating tile thoroughly with a hot air gun until heat penetrates through tile and softens the adhesive.
   4. As each tile is removed, place into asbestos waste receptor. Do not break into smaller pieces.
   5. After removal of a small area, scrape up adhesive remaining on floor with a hand scraper until only a thin smooth film remains. Where deposits are

heavy or difficult to scrape, a hot air gun may be used. Deposit scrapings in the asbestos waste disposal bag. Do not dry scrape surface pieces of tile that remain adhered. Do not use powered electric scrapers.

6. On completion of the area, vacuum clean floor with HEPA vacuum or wet mop. Dispose of the mop head as contaminated waste.

2. Removal of Asbestos-Containing Sheet Flooring
    1. Remove binding strips or other restrictive mouldings. Workers shall wear air purifying respirator fitted with high efficiency filter, and coveralls, at all times.
    2. Make series of cuts 100 mm to 200 mm (4" to 8") apart through top layers and about halfway through felt backing, parallel to wall.
    3. Start at end of room furthest from door and pry up corner of strip, separating top sheet from backing layer. Pull top layer back upon itself slowly and evenly, and half backing and top layers should pull free. After it is removed, roll up strip face out into tight roll, tape or tie securely, and place into asbestos waste receptor. Wet the asbestos felt underlay remaining on floor as soon as exposed.
    4. Continue with successive strips. Avoid walking on exposed asbestos felt. Seal asbestos waste receptors when filled. Remove maximum of three strips before wet scraping exposed felt underlay.
    5. Remove remaining adhered underlay by wet scraping. Soak area with water applied by sprayer. Allow water to penetrate felt. Scrape off remaining material. Maintain material wet by applying more water. Place scrapings in asbestos waste receptor.
    6. Continue this procedure alternately removing top sheets and then wet scraping felt, three strips at a time. Be careful not to walk on stripped floor.
    7. When whole floor has been cleaned of asbestos felt, allow it to dry and vacuum up any dirt with a HEPA vacuum or wet mop. Do *not* dry sweep. Dispose of the mop head as contaminated waste.
    8. Thoroughly clean tools and equipment with a damp cloth before returning to regular service. Dispose of cloth as contaminated waste.

3. Installing, Cutting or Drilling Non-Friable Asbestos Materials
    1. Work using power tools not fitted with HEPA filter dust collectors, must not be performed as Type 1 work.
    2. Where possible wet all materials to be disturbed.
    3. Immediately place waste in asbestos waste receptor. Clean area frequently during work with HEPA vacuum or by wet methods.
    4. At completion of work, drop sheets that will be reused must be cleaned with HEPA vacuum or by wet methods.
    5. Drop sheets that will not be reused must be disposed of as asbestos waste.

4. Removal of Other Non-Friable Asbestos Materials
    1. Type 1 procedures apply only to materials which can be removed intact, or in sections, without producing a pulverized or powdered waste. This method is most applicable to asbestos-cement board products, acoustic

ceiling tiles, gaskets, etc.
2. Where possible wet all material to be disturbed.
3. Undo fasteners necessary to remove material. Whenever possible remove asbestos cement panels intact. Break only if unavoidable. If broken, wet freshly exposed edges.
4. Where sections are adhered to the substrate, wet material and use hand scraping to remove adhering material.
5. Place removed material into asbestos waste receptor. Clean surrounding surfaces and asbestos work area frequently with HEPA vacuum or with wet methods (i.e., damp cloth that is disposed of as asbestos waste after cleaning).
6. Drop sheets shall be disposed of as asbestos waste.

5. **Waste Transport and Disposal**

1. Place waste into asbestos labelled disposal bag, seal with tape, clean the exterior of the bag with a clean cloth, and place into a second clean bag, also to be sealed with tape. Use a barrel, fibre drum, or cardboard or wooden box in place of the second bag when the asbestos waste material is likely to tear the inner bag. Seal the outer container.
2. Place waste containers in storage area for holding asbestos waste. Containers shall be labelled and assigned exclusively for asbestos waste.
3. Prepare waste for disposal in compliance with provincial regulations. The Property Manager will arrange for disposal.

TYPE 2 - Work Procedures

For locations of asbestos materials, refer to the current version of the Asbestos Inventory and Assessment Report.

1. **Equipment**

Equipment required for the work must be on-site before proceeding.

1. *Vacuum*

An asbestos-approved vacuum (HEPA filtered), equipped with brushes, fittings, etc. Vacuum must not be opened except by a fully protected worker within a Type 2 enclosure. The vacuum exterior shall be carefully wet cleaned after emptying. A HEPA filter is at least 99.97% efficient in collecting a 0.3 micrometre particle.

2. *Respirators*

Workers within the work area shall wear approved respirator. Respirators and filters will be provided by the employer, and individually assigned to workers. Respirator shall be a half-facepiece respirator with high efficiency filters. Respirators must be NIOSH approved and acceptable to the Provincial Authorities having jurisdiction. Respirators shall be kept in position throughout the entire time the worker is in the area of the work, from first disturbance of a ceiling tile or asbestos material, until the

final cleaning of the area and bagging of waste is complete. Change filters after 24 hours of wear or sooner if breathing resistance increases.

3. *Protective Clothing*

   All workers shall wear disposable coveralls with attached elasticized hood. Coveralls should be worn with the hood in place at all times. Coveralls may be vacuumed or wet wiped clean for reuse, for a maximum of 8 hours cumulative wear. Suit and head cover shall remain in place until worker leaves work area or the enclosure is dismantled. Boot covers or dedicated boots are recommended.

4. *Other Equipment*
   - plastic sheet (0.15 mm (6 mil) polyethylene) - to erect a total enclosure or to serve as drop sheet;
   - wood framing or clips to support polyethylene sheeting, as appropriate to work area;
   - tape - to fasten plastic enclosure to ceiling or to tape drop sheet to floor; ¾" double-sided tape recommended for attaching polyethylene to T-bar ceiling;
   - labelled asbestos waste bag 0.15 mm (6 mil) - for all asbestos waste, disposable suit, plastic for disposal, etc.;
   - pump sprayer containing water with wetting agent to wet asbestos as necessary (dilute wetting agent as per manufacturer's recommendations);
   - asbestos warning signs;
   - cleaning supplies - e.g., scouring pads, sponges, brushes, buckets, etc.;
   - insulation repair supplies (lagging compound, cloth, PVC covers);
   - encapsulating sealer, for brush or airless spray application.

2. Other Protective Measures

1. Do not eat, drink or smoke in the work area.
2. On leaving work area, proceed to washroom and wash all exposed skin on hands and face.

3. Scheduling of Work

1. Schedule work when occupants are absent. If persons are present, do not start work.
2. If work above ceiling is required on an emergency basis, and the area is occupied, ensure that client department(s) advise occupants to vacate area until work is complete and clearance is given to return.

4. Preparation

1. Shut down ventilation systems to and from the work area. Seal over all ventilation openings, diffusers, grilles, etc., with plastic and tape.
2. Where practical, clear areas of movable furnishings or equipment. This should include anything that occupants may wish to use during work period. Any furnishings or equipment not removed shall be adequately covered and sealed

using 0.15 mm (6 mil) polyethylene and tape. The intent of the protection is to provide an airtight envelope to protect the articles from airborne dust or splashed debris.
3. Post signs or barrier tape, appropriate to the work area, to indicate asbestos hazard and requirement for protective clothing for anyone entering the space.
4. For small rooms, cover walls with plastic such that the complete room becomes the work area. For larger rooms, erect enclosure of 0.15 mm (6 mil) polyethylene, of suitable dimensions to enclose the work area, and scaffolds and ladders required to gain access. If a suspended ceiling is present, the enclosure shall extend to the ceiling line. The enclosure shall be as airtight as conditions permit, and will include the provision of a double overlapping flap at the entrance. The floor of the work area shall be a layer of 0.15 mm (6 mil) polyethylene sealed to the plastic walls of the enclosure.
5. Don protective clothing and respirator prior to removing ceiling tile or disturbing pipe jacketing or sprayed fireproofing.

5. Execution

1. To remove fireproofing or texture plaster, saturate with amended water solution, using a pump sprayer. Do not remove the asbestos material until the material is thoroughly wetted to the substrate. Do not use water where electrical hazard exists.
2. To remove pipe insulation, first wet any area of damage, then carefully cut jacket. Keep insulation surface wetted by mist of water with wetting agent. Remove insulation in large sections and place immediately in disposal bag. After large pieces have been removed, saturate debris on mechanical equipment and clean all exposed surfaces with abrasive pads, sponges, cloths, etc.
3. To repair pipe insulation, use drop sheet under area of work to aid clean-up of any dislodged material. Plastic enclosure is not required. Mist any exposed insulation to wet surface and apply lagging paint and canvas or PVC jacketing as required.
4. For removal of suspended ceiling tiles (where asbestos debris is present on top of tiles or equipment to be accessed), remove the first tile carefully and vacuum all surfaces. Vacuum the upper surface of each subsequent tile prior to removal. Store tiles in the work area.
5. Remove dust and loose friable material likely to be disturbed in the process of doing the work, with a HEPA vacuum or by damp wiping.
6. When asbestos material is removed, all pieces should be placed directly into 0.15 mm (6 mil) polyethylene bags as they are removed. Avoid dropping material to floor wherever possible. After bulk removal is complete, wet wash the exposed surface.
7. Frequently, and at regular intervals during the work, clean up dust and waste in the work area by wet mopping, placing in disposal bags, or by HEPA vacuuming.
8. After completion of removal, seal exposed ends of fireproofing, texture plaster, or mechanical insulation with heavy layer of encapsulating sealer. Apply sealer coat to surfaces from which asbestos material was removed.
9. At completion of work, decontaminate equipment, tools and materials used in the work area by wet cleaning or HEPA vacuum.
10. Dispose of drop sheets and enclosures by wetting the polyethylene, then folding into disposal bags. Do not reuse drop sheets or enclosures.
11. Before leaving work area, decontaminate shoes and protective clothing by using HEPA vacuum or damp wiping. When protective clothing is to be disposed of, it shall be decontaminated as above and placed in labelled disposal bags. Workers shall vacuum all exposed skin, suit and respirator, and proceed to nearest

washroom to wash hands and face.

6. **Waste Transport and Disposal**

1. Place waste into asbestos labelled disposal bag, seal with tape, clean the bag, and place into a second clean bag, also to be sealed with tape. Use a barrel, fibre drum, or cardboard or wooden box in place of the second bag when the asbestos waste material is likely to tear the inner bag. Seal the rigid outer container.
2. Place waste containers in storage area for holding asbestos waste. Containers shall be labelled and assigned exclusively for asbestos waste.
3. Prepare for waste disposal in compliance with provincial regulations. The Property Manager will arrange for disposal.

TYPE 3 - Work Procedures

Type 3 procedures are not included in the standard work procedures due to the requirement for the development of specific procedures for the site and for the particular circumstances.

Glove Bag Work Procedures

1. **Equipment**

All equipment must be on site before proceeding with the work. Note that these procedures are primarily based on the use of Safe-T-Strip polyvinyl chloride movable glove bags. (Only the Safe-T-Strip glove bag is permitted for use in Ontario.) If the single use polyethylene glove bags permitted in some other jurisdictions are used, it should be understood that they are for use at one location only, and cannot be moved or used elsewhere.

NOTE: If single use polyethelene glove bag is used Section 5 - Execution, shall be replaced by manufacturer's recommended procedures.

1. *Glove Bag*

Prefabricated, 0.25 mm (10 mil) minimum thickness polyvinyl-chloride bag with integral 0.25 mm (10 mil) thick polyvinyl-chloride gloves and elasticized port. Bag shall be equipped with reversible double-pull double throw zipper on top. Bag must incorporate internal closure strip if it is to be removed from pipe for reuse elsewhere. Provide size and configuration appropriate for insulation to be removed. The bag must be disposed of once filled. Bag shall not be emptied and reused.

2. *Securing Straps*

Reusable nylon straps at least 25 mm (1") wide with metal buckle for sealing ends of bags around pipe and/or insulation.

3. *Water Sprayer*

Garden reservoir type, low velocity, capable of producing mist or fine spray with

water-containing wetting agent. Wetting agent shall be diluted as per manufacturer's recommendations.

4. *Respirators*

   Workers using glove bag must wear approved respiratory protection. Respirators and filters must be provided by the employer, and individually assigned to workers. Respiratory protection must be equal to, or exceed, protection of half-face respirator with high efficiency filters. Respirators must be NIOSH approved and acceptable to the Provincial Authorities having jurisdiction. Respirators shall be kept in position from the time the worker is attaching bag to pipe until final cleaning of the pipe and bagging of waste is completed. Filters shall be changed after 24 hours of wear or sooner if breathing resistance increases.

5. *Protective Clothing*

   Workers shall wear disposable coveralls with attached elasticized hood. Coveralls and hood shall remain in place until worker completes cleaning of pipe. Suit may be cleaned for reuse or disposed of as asbestos waste.

6. *Other Equipment*
   - labelled asbestos waste bags 0.15 mm (6 mil) - for all asbestos waste in glove bag, disposable suit, cleaning materials, etc.;
   - asbestos warning signs;
   - wire saw - saw with flexible serrated wire blade and handles to allow use inside glove bag;
   - knife with fully retractable blade for use inside glove bag;
   - plastic sheet (4 mil polyethylene) to cover exposed or damaged section of pipe prior to attaching glove bag;
   - tape-to fasten plastic to pipe if required;
   - cleaning supplies e.g., scouring pads, sponges, brushes, buckets, etc.;
   - HEPA vacuum, for evacuating air from bag prior to removing bag from pipe. A HEPA filter is at least 99.97% efficient in collecting a 0.3 micrometre particle.

2. Other Protective Measures

1. Do not eat, drink or smoke in the work area.
2. On completing clean-up of work area, use HEPA vacuum or wet cloth to clean hands, face, respirator and boots. Remove protective equipment and proceed to nearest washroom to wash all exposed skin on hands and face.

3. Scheduling of Work

1. Schedule work when occupants are absent. If persons are present, do not start work.

4. **Preparation**

1. Where practical, clear area below pipe of moveable furnishings or equipment. Provide scaffold as required to reach pipe.
2. Post an asbestos warning sign at all entrances to room in which the procedure is being used. If necessary use rope or tape barriers to separate work area.
3. Segregate the area of asbestos work, from other parts of the building required to remain in use by using polyethylene walls or barrier tape.
4. Shut off and seal all diffusers, vents and other openings to ventilation and exhaust systems in the room with polyethylene secured with tape.
5. Cover all items or equipment located in the designated work area with polyethylene when items or equipment cannot be cleaned in the case of a spill. Tape the polyethylene in place. The polyethylene should cover a width equal to the height of the pipe from the floor, with a minimum width of 3.6 m (12 feet), where required.
6. Seal all openings and voids in the vicinity of the glove bag operation with one layer of polyethylene secured with tape.
7. Check condition of pipe insulation where work will be performed. If the pipe insulation has minor isolated damage, mist surface and patch with tape. If damage is more extensive, wrap pipe with plastic and "candy stripe" it with duct tape first. If pipe insulation is severely damaged and cannot be simply repaired, glove bag is not appropriate. (Use Type 2 Procedures.)
8. Pre-clean with HEPA vacuum or wet methods any loose material on surface of pipe or any material on the floor. If significant amount of material is on floor, Type 2 procedures may be required for clean-up. (See Type 2 Procedures.)
9. Place necessary tools in bottom of glove bag.

5. **Execution**

1. Zip the bag onto the pipe and seal each end to the pipe with the securing straps. Do not pull the bag tightly to the ends - a small amount of slack allows better room to work within the bag. If a vertical bag is in use, ensure lower strap passes through plastic grommet and cloth tab on zipper.
2. Place hands into gloves and use necessary tools (wire saw, utility knife, wire cutters) to remove insulation from pipe. Arrange insulation in bottom of bag to obtain full capacity of bag. Roll metal jacketing carefully to minimize ripping or puncturing of the bag.
3. Insert nozzle of spray pump into bag through valve and wash pipe and interior of upper section of bag thoroughly. Use one hand to aid washing process. Wet surface of insulation in lower section of bag and any exposed ends of asbestos insulation remaining on pipe.
4. Prior to removing bag from the pipe, wash the top section of the bag and tools thoroughly. Insert nozzle of HEPA filtered vacuum into bag through the elasticized valve and evacuate air from bag. Seal the closure strip, remove the vacuum nozzle and straps, and remove the bag. Re-install and seal in new location before reopening closure.
5. If bag is to be moved along the same pipe, loosen securing straps, move bag, re-seal to pipe using double-pull zipper to pass hangers. Repeat insulation removal operation.
6. If during use the glove bag is ripped, cut or opened in any way, cease work and repair opening before continuing work. All spilled material must be cleaned up and removed with a HEPA vacuum or wet cleaning.
7. To remove bag after completion of insulation removal, thoroughly wash top section

of bag and tools and seal internal zip-lock closure. Place tools in one glove, pull hand out inverted, twist to create a separate pouch, tape inside-out glove at two separate locations 1" apart to seal pouch. Remove inside-out glove and tools by cutting between the tape seals.

8. Place glove pouch and tools into the next clean glove bag to be used. Alternately, place the tool pouch into water bucket, open pouch underwater and clean tools, then allow to dry.
9. Prior to disposal of bag, evacuate the bag with a HEPA vacuum. Pull a 0.15 mm (6 mil) polyethylene bag over glove bag before removing from pipe. Remove securing straps. Unfasten zipper. Seal glove bag and seal 0.15 mm (6 mil) polyethylene bag.
10. After removal of bag ensure pipe is clean of all residue. If necessary, after removal of each section of asbestos, vacuum all surfaces of pipe, using HEPA filtered vacuum equipment, or wipe with wet cloth.
11. Seal all surfaces of freshly-exposed pipe with encapsulating sealer to tack-down any residual dust. Cover exposed ends of any remaining asbestos insulation with lagging cloth or tape.
12. Before leaving work area, a worker shall decontaminate shoes and protective clothing by using HEPA vacuum or damp wiping. When protective clothing is to be disposed of, it shall be decontaminated as above and placed in labelled disposal bags. Workers shall vacuum all exposed skin, suit, respirator and hair (after removing hood) and proceed to nearest washroom to wash hands and face.

6. **Waste Transport and Disposal**

1. Place waste containers in storage area for holding asbestos waste. Containers shall be labelled and assigned exclusively for asbestos waste.
2. Prepare waste for disposal in compliance with provincial regulations. The Property Manager will arrange for disposal.

Asbestos Work Procedures

Emergency Asbestos Work Procedures

Emergency asbestos procedures shall be implemented when required in order to protect those undertaking the work, as well as to protect all others from, or limit exposure to, airborne asbestos. Procedures indicated shall be followed as closely as possible, in the event of an emergency situation.

Procedures for asbestos work, required as an immediate response to floods, pipe breaks, ceiling collapses, or other emergencies that affect asbestos materials, are as follows:

1. Clear area of all occupants.
2. Construct enclosure around area if time permits.
3. Shut down ventilation system serving area.
4. Worker performing repair shall wear protective respirator and disposable suit. If normal work clothes are worn they must be disposed of if visibly contaminated.
5. Use drop sheet under work, if possible, to minimize clean-up.
6. Perform emergency repair with minimum disturbance of asbestos.
7. Obtain asbestos equipment and perform clean-up of visible material. Use HEPA filtered vacuum or wet cleaning. Dispose of all cleaning supplies as contaminated waste.

8. The worker should wipe off or vacuum disposable clothing and footwear. Proceed to washroom to wash face and hands.
9. Notify the Property Manager regarding the asbestos disturbance, before allowing unprotected persons to enter the area. The Property Manager will contact the Regional Asbestos Coordinator to determine if additional precautionary measures are to be implemented. The Regional Asbestos Coordinator will arrange for removal, clean-up or repair of the asbestos material.
10. The Regional Asbestos Coordinator shall investigate the extent of asbestos disturbance, will determine additional actions to be undertaken and will determine if a hazard investigation under the *Canada Occupational Safety and Health Regulation* is appropriate.

Bulk Sample Collection Procedures

1. Sample the material when the area is not in use. Only those persons needed for sampling should be present in the immediate area.
2. Spray the material with a light mist of water to prevent fibre release during sampling. Do not disturb the material any more than necessary.
3. Materials of different appearance should be sampled separately. Mechanical insulation must be sampled separately on all systems, tanks, vessels, etc. Sample both the straight sections of pre-formed insulation and the insulating cement typically present at elbows, fittings, etc. (unless visually identified as fibreglass).
4. Collect the sample by penetrating the entire depth of the material, as the insulation may have been applied in more than one layer or covered with paint or other protective coating.
5. The use of a respirator is recommended for all sampling. Depending on the condition of the material, significant amounts of airborne fibres can be generated during sampling.
6. If pieces of material break off during sampling, the contaminated area must be cleaned up with a HEPA vacuum cleaner or by wet cleaning. Any debris generated must be placed in plastic bags, labelled, sealed and disposed of as asbestos waste.
7. Place samples in labelled plastic bags with a zip-lock closure or in sealed plastic vials. Samples shall be identified with the following information:
    - Sample Number;
    - Building;
    - Room Number;
    - Date of Sampling;
    - Name of Sampler;
    - Source of sample, e.g., Cold Water Pipe, Cold Water Fitting, etc.
8. Temporarily seal any openings created to collect the sample, (for example, with tape, paint or metal foil tape wrapped completely around the pipe). Advise the Property Manager or Regional Asbestos Coordinator.
9. Analysis must be performed by the Health Canada Laboratory or by a laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). Contact the Regional Asbestos Coordinator for a list of acceptable laboratories.

Respirator Fitting, Inspection, Cleaning and Disinfecting

Notes for Air Purifying Half-Facepiece Respirators

WARNING: This respirator does not supply oxygen. It must not be used in or for: oxygen deficient

atmospheres (less than 19.5%); poorly ventilated areas or enclosed spaces such as tanks or small rooms; abrasive blasting or firefighting; or for protection against contaminants excluded or not covered by the applicable Approval Label.

Respirators must be approved for protection against asbestos. Check for NIOSH certification.

1. **Respirator Fitting**

   Persons required to wear respirators must first pass a qualitative fit-test administered according to the current version of CSA standard Z-94.4. The fit-test should be repeated yearly.

2. **Inspection Items Prior to Each Use**

   1. Examine facepiece for:
      - dirt;
      - cracks, tears or holes;
      - distortion and inflexibility;
      - cracks or breaks in filter holders, worn threads and missing gaskets.
   2. Examine head straps for:
      - breaks or tears;
      - loss of elasticity;
      - broken or malfunctioning buckles and attachments.
   3. Examine valves for:
      - detergent residue, dust or other material on valves or valve seats;
      - cracks, tears or distortion in the valve material;
      - missing or defective valves or valve covers.
   4. Examine filter for:
      - proper filter for protection against asbestos (High Efficiency Particulate);
      - incorrect installation, loose connections, missing or worn gaskets or cross threading;
      - cracks or dents in filter housing.
   5. Leak-checks:

      Perform the following tests on each donning:

      - *negative pressure test:* cover inlets to filters, breathe in and hold breath; respirator should be drawn to face for minimum of ten seconds (if not, check exhalation valve and fit);
      - *positive pressure test:* cover exhalation valve cover and puff out slightly and hold breath; respirator should slightly pressurize and still hold seal (if not, check inhalation valves and fit).

3. **Respirator Cleaning and Disinfecting**

   1. Remove filters and disassemble facepiece. Discard or repair defective parts.
   2. Wash components in warm water (50°C - 60°C) with mild detergent, using a brush. Cleaning and disinfectant solutions are available from respirator manufacturers.
   3. Thoroughly rinse components in clean, warm water.
   4. Air dry or hand dry components with a clean, lint-free cloth.

5. Reassemble respirator and test to ensure that all components are working properly (see above). Be careful to check that valves are not lost in the cleaning.

4. **Filter Cartridge Handling and Replacement**

1. Filters can be reused until an increase in breathing resistance is noted. Under typical Type 2 conditions, filter cartridges should last a minimum of 24 hours. Inlet side of filter cartridge to be reused shall be sealed on the inlet side with tape for storage.
2. When no longer usable, filter cartridges will be sealed on the inlet side with tape, and disposed of as contaminated waste.

APPENDIX III

Asbestos Register of Samples Taken

REGISTER FOR THE SAFE MANAGEMENT OF ASBESTOS

Complementary Characterization: May 2022

Location : Establishment Building Floor Room	Former Room No.	Building Construction Date	Level	Location Within Building	Room Function	SBA #	Component	Material Identification (ACM or Suspect ACM)	Asbestos: Presence (proven or not proven) Absence (proven)	Asbestos Type	Per-centage (%)	Documentary Evidence	Friability (DP-057)	Accessibility (DP-057)	Assessment of Disturbance Potential (ASTM)	Unit of Measure	Total Estimated Quantity of ACM	Verification Date (aaaa-mm-dd)	Permit Number	Condition of the Material	Estimated Quantity of ACM FAIR CONDITION (ft²)	Estimated Quantity of ACM POOR CONDITION (ft²)	Estimated Quantity of Debris (ft³)	Action Matrix (DP-057)	Photo Number(s)	Work Date (aaaa-mm-dd)	Permit Number	Nature of Completed Work (DP-057)	Documentary Evidence	Date of Work (aaaa-mm-dd)	Permit Number	Type of Work	Documentary Evidence	Removal Date (aaaa-mm-dd)	Permit Number	Documentary Evidence	Comments
341-J-203	341-J-202	1968	1st floor	Room	Inmates common room	3-3	Flooring	Glue underneath vinyl floor tile (12 in. x 12 in, grey)	Suspected presence			WSP Report 181-00294-07-300																									
341-J-203	341-J-202	1968	1st floor	Room	Inmates common room	3-3	Flooring	Vinyl floor tile, 12 in. x 12 in., grey	Presence	Chrysotile	6,04	MHV Report P16-3386-3	No	A	Low	Square foot	385	2021-11-15		Good				7	8805 to 8808	2021-12-09	3SAW6498	Removal of damaged vinyl tiles	Gesfor, 2020-2021. Monitoring repair work on asbestos-containing materials, Ref. End of Work Report 31-01-2022_SADP_R104483								
341-J-103	341-J-111	1968	Ground floor	Room	Janitor's Room	1-2	Flooring	Vinyl floor tile, 12 in. x 12 in., white mottled grey	Absence			EMSL-Gesfor Analysis Report 552109090						2020-09-21								2021-12-09	3SAW6498	Installation of asbestos-free vinyl tiles, Lot 114E, Model 51911031	Gesfor, 2020-2021. Monitoring repair work on asbestos-containing materials, Ref. End of Work Report 31-01-2022_SADP_R104483								
341-J-203	341-J-202	1968	1st floor	Room	Inmates common room	3-3	Piping (elbows)	Reinforcing material	Presence	Chrysotile	40-45	MHV Report P07-1400-C	Yes	C (visible)	Low	Unit	4	2021-11-15		Good				7													
341-J-203	341-J-202	1968	1st floor	Exterior perimeter	Inmates common room	3-3	Concrete block walls	Vermiculite	Presence	Actinolite	1-5	MHV Report P13-2662	Yes	D	Low			2021-11-15		Good				7													
341-J-203	341-J-203	1968	1st floor		Inmates common room	3-3		Ref.: Room 341-J-202																													
341-J-203	**341-J-three staircases**	**1968**	**Ground floor**	**Room**	**Inmates common room**	**3-2**	**Flooring**	**Glue underneath vinyl floor tile (12 in. x 12 in., grey)**	**Absence**			**WSP Report 181-00294-07-300**																									**Gesfor, May 2022. Sample VR002a to c, Analysis Report 552206767, Ref. R101203**
341-J-203	341-J-three staircases	1968	Ground floor	Room	Inmates common room	3-2	Flooring	Vinyl floor tile, 12 in. x 12 in., grey	Presence	Chrysotile	6,04	MHV Report P16-3386-3	No	A	Low	Square foot	240	2021-11-15		Good				7													
341-J-203	**341-J-trois escaliers**	**1968**	**Exterior**	**Roof**	**Exterior**	**3-2**	**Roof**	**Roofing membrane**	**Absence**			**Gesfor Report R.101213**																									**Gesfor, May 2022. Sample VR014a to c, Analysis Report 552206767, Ref. R101203**
341-K-100P	341-K-131	1968	Ground floor	Room	Door at the end of Corridor K towards staircase	3-2	Piping (elbows)	Reinforcing material	Presence	Chrysotile	40-45	MHV Report P07-1400-C	Yes	C (visible)	Low	Unit	10	2021-11-15		Good				7													
341-K-100P	341-K-131	1968	Ground floor	Exterior perimeter	Door at the end of Corridor K towards staircase	3-2	Concrete block walls	Vermiculite	Presence	Actinolite	1-5	MHV Report P13-2662	Yes	D	Low			2021-11-15		Good				7		2017-02-15		Repair of spaces that can release vermiculite and cleaning of debris	Gesfor Report M04-27827-3								
341-K-100P	**341-K-131**	**1968**	**Ground floor**	**Exterior perimeter**	**Door at the end of Corridor K towards staircase**	**3-2**	**Concrete block walls**	**Concrete block mortar**	**Absence**			**Gesfor Report R.101213**																									**Gesfor, May 2022. Sample VR003a to c, Analysis Report 552206767, Ref. R101203**
341-K-100P	**341-K-131**	**1968**	**Exterior**	**Roof**	**Exterior**	**3-2**	**Roof**	**Roofing membrane**	**Absence**			**Gesfor Report R.101213**																									**Gesfor, May 2022. Sample VR014a to c, Analysis Report 552206767, Ref. R101203**
341-K-204N	341-K-2KB	1968	1st floor	Exterior perimeter	Staircase	3-3	Concrete block walls	Vermiculite	Presence	Actinolite	1-5	MHV Report P13-2662	Yes	D	Low			2021-11-15		Good				7													
341-K-204N	**341-K-2KB**	**1968**	**1st floor**	**Exterior perimeter**	**Staircase**	**3-3**	**Concrete block walls**	**Concrete block mortar**	**Absence**			**Gesfor Report R.101213**																									**Gesfor, May 2022. Sample VR004a to l, Analysis Report 552206767, Ref. R101203**
341-K-204N.1	341-K-mechanical room	1968	2nd floor	Mechanical room		3-4	Concrete block walls	Vermiculite	Presence	Actinolite	1-5	MHV Report P13-2662	Yes	D	Low			2021-11-15		Good				7													
341-K-204N.1	341-K-mechanical room	1968	2nd floor	Mechanical room		3-4	Piping (elbows)	Reinforcing material	Presence	Chrysotile	40-45	MHV Report P07-1400-C	Yes	B	Low	Unit	20	2021-11-15		Good				7		2019-03-06		Repair and encapsulation of damaged reinforcing material	WSP, April 2019. Monitoring repair work on asbestos-containing materials, Ref. WSP : 181-00294-07								
341-K-204N.1	341-K-mechanical room	1968	2nd floor	Mechanical room		3-4	Piping (irregular sections)	Reinforcing material	Presence	Chrysotile	40-45	MHV Report P07-1400-C	Yes	B	Low	Unit	18	2021-11-15		Good				7													
341-K-204N.1	341-K-mechanical room	1968	2nd floor	Mechanical room		3-4	Ventilation duct	Tar paper	Absence			MHV Report P16-3386-3																									
341-T-115B	341-T-152	1968	Ground floor	Room	Courtroom	7-2	Ceiling	Acoustic ceiling tile, 24 in. x 48 in.	Absence			MHV Report P16-3386-3																									
341-T-115B	341-T-152	1968	Ground floor	Room	Courtroom	7-2	Wall	Joint compound	Absence			MHV Report P16-3386-3																									
341-T-115B	341-T-152	1968	Ground floor	Ceiling space	Courtroom	7-2	Piping (elbows)	Reinforcing material	Presence	Chrysotile	40-45	MHV Report P07-1400-C	Yes	C (concealed)	Low	Unit	2	2021-11-15		Good				7		2017-02-20 2017-10-16		Removal of three elbows Removal of one elbow	Gesfor Report M04-27827-3 MHV Report P17-3642 Complexe SADP - Rapport final - travaux								Inspection 2019-2020 (MHV): material not observed. Uninsulated piping or insulated with glass wool
341-T-115B	341-T-152	1968	Ground floor	Ceiling space	Courtroom	7-2	Piping (irregular sections)	Reinforcing material	Presence	Chrysotile	40-45	MHV Report P07-1400-C	Yes	C (concealed)	Low	Unit	1	2021-11-15		Good				7		2017-02-20 2017-10-16		Removal of two irregular sections Repair of one irregular section	Gesfor Report M04-27827-3 MHV Report P17-3642 Complexe SADP - Rapport final - travaux								
341-T-115B	**341-T-152**	**1968**	**Ground floor**	**Room**	**Vestibule, Courtroom**	**7-2**	**Wall**	**Drywall**	**Absence**			**Gesfor Report R.101213**																									**Gesfor, May 2022. Sample VR001a to c, Analysis Report 552206767, Ref. R101203**
341-T-137	**341-T-168**	**1968**	**Ground floor**	**Room**	**Vestibule, General office**	**7-2**	**Flooring**	**Glue underneath vinyl floor tile, 12 in. by 12 in., beige**	**Absence**			**Gesfor Report R.101213**																									**Gesfor, May 2022. Sample VR012a to c, Analysis Report 552206767, Ref. R101204**
341-T-137	341-T-168	1968	Ground floor	Room	Vestibule, General office	7-2	Flooring	Glue underneath vinyl floor tile, 12 in. by 12 in., pink	Presence susceptible			WSP Report 181-00294-07-300																									
341-T-137	341-T-168	1968	Ground floor	Room	Vestibule, General office	7-2	Flooring	Vinyl floor tile, 12 in. by 12 in., pink	Absence			MHV Report P16-3386-3																									
341-T-137	341-T-168	1968	Ground floor	Room	Vestibule, General office	7-2	Ceiling	Acoustic ceiling tile, 24 in. x 48 in.	Absence			MHV Report P16-3386-3																									
341-T-137	341-T-168	1968	Ground floor	Room	Vestibule, General office	7-2	Wall	Joint compound	Absence			MHV Report P16-3386-3																									
341-T-137	**341-T-168**	**1968**	**Ground floor**	**Room**	**Vestibule, General office**	**7-2**	**Wall**	**Drywall**	**Absence**			**Gesfor Report R.101213**																									**Gesfor, May 2022. Sample VR013a to c, Analysis Report 552206767, Ref. R101204**
341-U-117	**341-U-120**	**1968**	**Ground floor**	**Room**	**Classroom**	**8-2**	**Wall**	**Concrete block mortar**	**Absence**			**Gesfor Report R.101213**																									**Gesfor, May 2022. Sample VR011a to l, Analysis Report 552206767, Ref. R101203**
341-U-117	**341-U-120**	**1968**	**Ground floor**	**Room**	**Classroom**	**8-2**	**Flooring**	**Glue underneath vinyl floor tile, 12 in. by 12 in., grey, white and purple**	**Absence**			**Gesfor Report R.101213**																									**Gesfor, May 2022. Sample VR010a to c, Analysis Report 552206767, Ref. R101204**
341-U-117	341-U-120	1968	Ground floor	Room	Classroom	8-2	Flooring	Vinyl floor tile, 12 in. by 12 in., grey, white and purple	Absence			MHV Report P16-3386-3																									
341-U-117	341-U-120	1968	Ground floor	Room	Classroom	8-2	Ceiling	Acoustic ceiling tile, 24 in. x 48 in.	Absence			MHV Report P16-3386-3																Gesfor Report M04-27827-3									
341-U-117	341-U-120	1968	1st floor	Ceiling space	Classroom	8-2	Piping (elbows)	Reinforcing material	Presence	Chrysotile	40-45	MHV Report P07-1400-C	Yes	C (concealed)	Low	Unit	5	2021-11-15		Good				7		2017-02-22 and 2017-03-02		Removal of four elbows	Gesfor Report M04-27827-3 MHV Report P17-3642 Complexe SADP - Rapport final - travaux								
341-U-117	341-U-120	1968	1st floor	Ceiling space	Classroom	8-2	Piping (irregular	Reinforcing material	Presence	Chrysotile	40-45	MHV Report P07-1400-C	Yes	C (concealed)	Low	Unit	14	2021-11-15		Good				7		2017-02-22 and 2017-03-02		Removal of 15 irregular sections									Behind columns or beams
341-U-120H.1	341-U-102	1968	Ground floor	Exterior perimeter	Native Peoples room	8-2	Precast wall	Vermiculite	Presence	Actinolite	1-5	MHV Report P13-2662	No	D	Low			2021-11-15		Good				7													
341-U-120H.1	341-U-102	1968	Ground floor	Room	Native Peoples room	8-2	Ceiling	Joint compound	Absence			MHV Report P16-3386-3																									
341-U-120H.1	**341-U-102**	**1968**	**Ground floor**	**Room**	**Native Peoples room**	**8-2**	**Ceiling**	**Drywall**	**Absence**			**Gesfor Report R.101213**																									**Gesfor, May 2022. Sample VR009a to c, Analysis Report 552206767, Ref. R101203**
341-U-120H.1	341-U-102	1968	Ground floor	Room	Native Peoples room	8-2	Wall	Joint compound	Absence			MHV Report P16-3386-3																									
341-U-120H.1	**341-U-102**	**1968**	**Ground floor**	**Room**	**Native Peoples room**	**8-2**	**Wall**	**Drywall**	**Absence**			**Gesfor Report R.101213**																									**Gesfor, May 2022. Sample VR008a to c, Analysis Report 552206767, Ref. R101203**
341-U-120H.1	**341-U-102**	**1968**	**Ground floor**	**Room**	**Native Peoples room**	**8-2**	**Flooring**	**Glue underneath vinyl floor tile, 12 in. by 12 in., grey, white and purple**	**Absence**			**Gesfor Report R.101213**																									**Gesfor, May 2022. Sample VR007a to c, Analysis Report 552206767, Ref. R101203**

REGISTER FOR THE SAFE MANAGEMENT OF ASBESTOS

Complementary Characterization: May 2022

Location : Establishment Building Floor Room	Former Room No.	Building Construction Date	Level	Location Within Building	Room Function	SBA #	Component	Material Identification (ACM or Suspect ACM)	Asbestos: Presence (proven or not proven) Absence (proven)	Asbestos Type	Per-centage (%)	Documentary Evidence	Friability (DP-057)	Accessibility (DP-057)	Assessment of Disturbance Potential (ASTM)	Unit of Measure	Total Estimated Quantity of ACM	Verification Date (aaaa-mm-dd)	Permit Number	Condition of the Material	Estimated Quantity of ACM FAIR CONDITION (ft²)	Estimated Quantity of ACM POOR CONDITION (ft²)	Estimated Quantity of Debris (ft²)	Action Matrix (DP-057)	Photo Number(s)	Work Date (aaaa-mm-dd)	Permit Number	Nature of Completed Work (DP-057)	Documentary Evidence	Date of Work (aaaa-mm-dd)	Permit Number	Type of Work	Documentary Evidence	Removal Date (aaaa-mm-dd)	Permit Number	Documentary Evidence	Comments
341-U-120H.1	341-U-102	1968	Ground floor	Room	Native Peoples room	8-2	Flooring	Vinyl floor tile, 12 in. by 12 in., grey, white and purple	Absence			MHV Report P16-3386-3																									
341-U-127	341-U-109	1968	Ground floor	Room	Folding, Laundry room	8-2	Flooring	Vinyl floor tile, 12 in. by 12 in., grey with traces of black	Absence			MHV Notice P19-4085																									
341-U-127	**341-U-109**	**1968**	**Ground floor**	**Room**	**Folding, Laundry room**	**8-2**	**Flooring**	**Glue underneath vinyl floor tile, 12 in. by 12 in., grey with white lines**	**Absence**			**WSP Report 181-00294-07-300**																**MHV Report P19-4085 Complexe SADP - Rapport final - travaux and Gesfor, 2020-2021. Monitoring repair work on asbestos-containing materials, Ref. End of Work Report 31-01-2022_SADP_R104483**										**Gesfor, May 2022. Sample VR005a to c, Analysis Report 552206767, Ref. R101203**
341-U-127	341-U-109	1968	Ground floor	Room	Folding, Laundry room	8-2	Flooring	Vinyl floor tile, 12 in. by 12 in., grey with white lines	Presence	Chrysotile	1,61	MHV Report P16-3386-3	No	A	Low	Square foot	858	2021-11-15		Fair	6			6	2561 to 2566	2020-02-11 and 2021-06-10	Not identified and 3SAW6498	Removal of vinyl tiles and Removal of damaged vinyl tiles	Gesfor, 2020-2021. Monitoring repair work on asbestos-containing materials, Ref. End of Work Report 31-01-2022_SADP_R104483								
341-U-127	341-U-109	1968	Ground floor	Room	Folding, Laundry room	8-2	Flooring	Vinyl floor tile, 12 in. by 12 in., white mottled grey	Absence			EMSL-Gesfor Analysis Report 552109090						2020-09-21								2021-06-10	3SAW6498	Installation of asbestos-free vinyl tiles, Lot 114E, Model 51911031								
341-U-127	**341-U-109**	**1968**	**Ground floor**	**Room**	**Folding, Laundry room**	**8-2**	**Wall**	**Concrete block mortar**	**Absence**			**Gesfor Report R.101213**																									**Gesfor, May 2022. Sample VR006a to i, Analysis Report 552206767, Ref. R101203**
341-U-127	341-U-109	1968	Ground floor	Room	Folding, Laundry room	8-2	Piping (elbows)	Reinforcing material	Presence	Chrysotile	40-45	MHV Report P07-1400-C	Yes	C (visible)	Low	Unit	8	2021-11-15		Good				7													
341-U-127	341-U-109	1968	Ground floor	Room	Folding, Laundry room	8-2	Piping (irregular sections)	Reinforcing material	Presence	Chrysotile	40-45	MHV Report P07-1400-C	Yes	C (visible)	Low	Unit	2	2021-11-15		Good				7													
341-U-127	**341-U-109**	**1968**	**Exterior**	**Roof**	**Exterior**	**8-2**	**Roof**	**Roofing membrane**	**Absence**			**Gesfor Report R.101213**																									Gesfor, May 2022. Sample VR016a to c, Analysis Report 552206767, Ref. R101203

APPENDIX IV-A

Sample Analysis Results for Asbestos

EMSL Canada Inc.

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Tél/Fax (289) 997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

Réf. Commande: 552206767
N° Client: 55LEGR50
Bon de Commande: 1708298
N° Projet:

Attn: Jocya Pellerin
Le Groupe Gesfor Poirier, Pinchin Inc.
6705, rue Jean-Talon Est
Suite 211
Montréal, QC H1S 1N2
Proj: Établissement Archambault / 1708298

Téléphone: (418) 681-1999
Fax: (418) 681-5553
Date de Réception: 27/4/2022
Date du Prélèvement:
Date de l'analyse: 04/5/2022 - 05/5/2022

Résumé du rapport d'analyse de l'amiante en utilisant la méthode analytique 244 de l'IRSST

Nom d'échantillon	Description d'échantillon	Couleur	ESSAI / Date d'analyse	Partie non-amiante		Amiante
				Fibreux	Non Fibreux	
VR 001a- Joint Compound EMSL 552206767-0001	placoplâtre mur, local T-115b	Beige	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 001a- Drywall EMSL 552206767-0001A	placoplâtre mur, local T-115b	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 001b EMSL 552206767-0002	placoplâtre mur, local T-115b	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 001c- Joint Compound EMSL 552206767-0003	placoplâtre mur, local T-115b	Blanc	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 001c- Drywall EMSL 552206767-0003A	placoplâtre mur, local T-115b	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 002a EMSL 552206767-0004	Colle sous carreau de vinyle gris, local J-202	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 002b EMSL 552206767-0005	Colle sous carreau de vinyle gris, local J-202	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 002c EMSL 552206767-0006	Colle sous carreau de vinyle gris, local J-202	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 003a EMSL 552206767-0007	Mortier sur mur de blocs, local K-100P	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 003b EMSL 552206767-0008	Mortier sur mur de blocs, local K-100P	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 003c EMSL 552206767-0009	Mortier sur mur de blocs, local K-100P	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 003d EMSL 552206767-0010	Mortier sur mur de blocs, local K-100P	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 003e EMSL 552206767-0011	Mortier sur mur de blocs, local K-100P	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 003f EMSL 552206767-0012	Mortier sur mur de blocs, local K-100P	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 003g EMSL 552206767-0013	Mortier sur mur de blocs, local K-100P	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 003h EMSL 552206767-0014	Mortier sur mur de blocs, local K-100P	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 003i EMSL 552206767-0015	Mortier sur mur de blocs, local K-100P	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté

Rapport initial du: 05/5/2022

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Réf. Commande:	552206767
N° Client:	55LEGR50
Bon de Commande:	1708298
N° Projet:	

Résumé du rapport d'analyse de l'amiante en utilisant la méthode analytique 244 de l'IRSST

Nom d'échantillon	Description d'échantillon	Couleur	ESSAI / Date d'analyse	Partie non-amiante		Amiante
				Fibreux	Non Fibreux	
VR 004a EMSL 552206767-0016	Mortier sur mur de blocs, local K-204N	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 004b EMSL 552206767-0017	Mortier sur mur de blocs, local K-204N	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 004c EMSL 552206767-0018	Mortier sur mur de blocs, local K-204N	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 004d EMSL 552206767-0019	Mortier sur mur de blocs, local K-204N	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 004e EMSL 552206767-0020	Mortier sur mur de blocs, local K-204N	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 004f EMSL 552206767-0021	Mortier sur mur de blocs, local K-204N	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 004g EMSL 552206767-0022	Mortier sur mur de blocs, local K-204N	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 004h EMSL 552206767-0023	Mortier sur mur de blocs, local K-204N	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 004i EMSL 552206767-0024	Mortier sur mur de blocs, local K-204N	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 005a EMSL 552206767-0025	Colle sous carreau de vinyle gris ligné blanc, local U-127	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 005b EMSL 552206767-0026	Colle sous carreau de vinyle gris ligné blanc, local U-127	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 005c EMSL 552206767-0027	Colle sous carreau de vinyle gris ligné blanc, local U-127	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 006a EMSL 552206767-0028	Mortier sur mur de blocs, local U-127	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 006b EMSL 552206767-0029	Mortier sur mur de blocs, local U-127	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 006c EMSL 552206767-0030	Mortier sur mur de blocs, local U-127	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 006d EMSL 552206767-0031	Mortier sur mur de blocs, local U-127	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 006e EMSL 552206767-0032	Mortier sur mur de blocs, local U-127	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 006f EMSL 552206767-0033	Mortier sur mur de blocs, local U-127	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 006g EMSL 552206767-0034	Mortier sur mur de blocs, local U-127	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 006h EMSL 552206767-0035	Mortier sur mur de blocs, local U-127	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 006i EMSL 552206767-0036	Mortier sur mur de blocs, local U-127	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté

Rapport initial du: 05/5/2022

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Réf. Commande: 552206767
N° Client: 55LEGR50
Bon de Commande: 1708298
N° Projet:

Résumé du rapport d'analyse de l'amiante en utilisant la méthode analytique 244 de l'IRSST

Nom d'échantillon	Description d'échantillon	Couleur	ESSAI / Date d'analyse	Partie non-amiante		Amiante
				Fibreux	Non Fibreux	
VR 007a EMSL 552206767-0037	Colle sous carreau de vinyle gris blanc et mauve, local U-120.H.1	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 007b EMSL 552206767-0038	Colle sous carreau de vinyle gris blanc et mauve, local U-120.H.1	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 007c EMSL 552206767-0039	Colle sous carreau de vinyle gris blanc et mauve, local U-120.H.1	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 008a- Mastic EMSL 552206767-0040	placoplâtre mur, local U-120.H.1	Jaune	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 008a- Wallpaper EMSL 552206767-0040A	placoplâtre mur, local U-120.H.1	Blanc	**MLP** 04/5/2022	65.0%	35.0%	Non Détecté
VR 008a- Drywall EMSL 552206767-0040B	placoplâtre mur, local U-120.H.1	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 008b EMSL 552206767-0041	placoplâtre mur, local U-120.H.1	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 008c- Joint Compound EMSL 552206767-0042	placoplâtre mur, local U-120.H.1	Blanc	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 008c- Drywall EMSL 552206767-0042A	placoplâtre mur, local U-120.H.1	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 009a- Joint Compound EMSL 552206767-0043	placoplâtre plafond, local U-120.H.1	Blanc	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 009a- Drywall EMSL 552206767-0043A	placoplâtre plafond, local U-120.H.1	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 009b- Joint Compound EMSL 552206767-0044	placoplâtre plafond, local U-120.H.1	Blanc	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 009b- Drywall EMSL 552206767-0044A	placoplâtre plafond, local U-120.H.1	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 009c- Joint Compound EMSL 552206767-0045	placoplâtre plafond, local U-120.H.1	Blanc	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 009c- Drywall EMSL 552206767-0045A	placoplâtre plafond, local U-120.H.1	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 010a EMSL 552206767-0046	Colle sous carreau de vinyle gris blanc et mauve, local U-117	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 010b EMSL 552206767-0047	Colle sous carreau de vinyle gris blanc et mauve, local U-117	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 010c EMSL 552206767-0048	Colle sous carreau de vinyle gris blanc et mauve, local U-117	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 011a EMSL 552206767-0049	Mortier sur mur de blocs, local U-117	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 011b EMSL 552206767-0050	Mortier sur mur de blocs, local U-117	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 011c EMSL 552206767-0051	Mortier sur mur de blocs, local U-117	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté

Rapport initial du: 05/5/2022

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Réf. Commande: 552206767
N° Client: 55LEGR50
Bon de Commande: 1708298
N° Projet:

Résumé du rapport d'analyse de l'amiante en utilisant la méthode analytique 244 de l'IRSST

Nom d'échantillon	Description d'échantillon	Couleur	ESSAI / Date d'analyse	Partie non-amiante		Amiante
				Fibreux	Non Fibreux	
VR 011d EMSL 552206767-0052	Mortier sur mur de blocs, local U-117	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 011e EMSL 552206767-0053	Mortier sur mur de blocs, local U-117	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 011f EMSL 552206767-0054	Mortier sur mur de blocs, local U-117	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 011g EMSL 552206767-0055	Mortier sur mur de blocs, local U-117	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 011h EMSL 552206767-0056	Mortier sur mur de blocs, local U-117	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 011i EMSL 552206767-0057	Mortier sur mur de blocs, local U-117	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 012a EMSL 552206767-0058	Colle sous carreau de vinyle beige, local T-137	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 012b EMSL 552206767-0059	Colle sous carreau de vinyle beige, local T-137	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 012c EMSL 552206767-0060	Colle sous carreau de vinyle beige, local T-137	Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 013a EMSL 552206767-0061	placoplâtre mur, local T-137	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 013b EMSL 552206767-0062	placoplâtre mur, local T-137	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 013c EMSL 552206767-0063	placoplâtre mur, local T-137	Gris	**MLP** 04/5/2022	0.0%	100.0%	Non Détecté
VR 014a EMSL 552206767-0064	membrane de toiture J-202	Gris/Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 014b EMSL 552206767-0065	membrane de toiture J-202	Gris/Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 014c EMSL 552206767-0066	membrane de toiture J-202	Gris/Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 015a EMSL 552206767-0067	membrane de toiture K-100P	Gris/Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 015b EMSL 552206767-0068	membrane de toiture K-100P	Gris/Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 015c EMSL 552206767-0069	membrane de toiture K-100P	Gris/Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 016a EMSL 552206767-0070	membrane de toiture U-127	Gris/Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 016b EMSL 552206767-0071	membrane de toiture U-127	Gris/Noir	**MET** 05/5/2022	0.0%		Non Détecté
VR 016c EMSL 552206767-0072	membrane de toiture U-127	Gris/Noir	**MET** 05/5/2022	0.0%		Non Détecté

Rapport initial du: 05/5/2022

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Réf. Commande:	552206767
N° Client:	55LEGR50
Bon de Commande:	1708298
N° Projet:	

Résumé du rapport d'analyse de l'amiante en utilisant la méthode analytique 244 de l'IRSST

Nom d'échantillon	Description d'échantillon	Couleur	ESSAI / Date d'analyse	Partie non-amiante		Amiante
				Fibreux	Non Fibreux	

Analyste(s):

Sandy Burany, Ph.D	MET(24)
Stephanie Achaiya	MLP(56)

Examiné et approuvé par:
Matthew Davis ou autre signataire autorisé

Les intervalles de concentration applicables à la méthode d'analyse de l' IRSST 244 sont les suivantes: ND (non détecté), Trace (4 fibres ou moins, contamination possible), <1%, (1 à 5%), (entre 5 à 10%), (entre 10 à 25%), (entre 25 à 50%), (entre 50 à 75 %), (entre 75 à 90%), (> 90%). Les tuiles de plancher signalés comme "Non détecté" ou " Trace" par l'analyse de MLP doivent être analysés par MET (Méthode ELAP 198.4). La limite de détection pour les échantillons "Non détecté" est <0.1%. En raison des limites inhérentes à la méthode MLP, les fibres d'amiante de dimensions inférieures à la limite de la résolution ne seront pas détectées. Ce rapport d'essai ne concerne que les échantillons testés, et ne peut être reproduit sous aucune forme sans l'accord écrite d'EMSL. La responsabilité d' EMSL est limitée au coût de l'analyse. EMSL ne porte aucune responsabilité pour les activités de collecte d'échantillon ou des limites des méthodes analytiques. L'interprétation et l'utilisation des résultats des tests sont à la charge du client. Les échantillons ont été reçus en bon état, sauf indication contraire.

Analyses effectués par EMSL Canada Inc. Mississauga, ON PLM IRSST: NVLAP 200877-0; TEM IRSST: NYS ELAP 12027

Rapport initial du: 05/5/2022

APPENDIX IV-B

Sample Analysis Results for Lead (Paint)

eurofins | EnvironeX
4495, boul. Wilfrid-Hamel, suite 150, Québec (Québec) G1P 2J7 (418) 977-1220
2325, boul. Fernand-Lafontaine, Longueuil (Québec) J4N 1N7 (514) 332-6001
3705, boul. Industriel, Sherbrooke (Québec) J1L 1X8 (819) 481-1469
Sans frais : 1 (877) 977-1220

CERTIFICAT D'ANALYSES OFFICIEL

LE GROUPE GESFOR Poirier, Pinchin
Jocya Pellerin
6705, rue Jean-Talon Est, Bureau 211
Montréal, Québec
H1S 1N2
Tél.: (514) 251-1313

Certificat : **3239692**
Demande d'analyse : 100160005
Date du rapport: 2022-05-03
Projet client : 1708298
Bon de commande : 1708298
Chargé de projets : Aude Briand : 514-332-6001
Adresse courriel : audebriand@labenvironex.com

Données sur le prélèvement

Échantillon EnvironeX : 6156459

Identification client : Pb001 a)-Peint. Blanche
Nature : Peinture
Nom du préleveur : Marie-Ève Bellefeuille
Date de prélèvement: 2022-04-25
Date de réception: 2022-04-27
Lieu du prélèvement : Voir Référence
Info. supplémentaires : mur blocs local U-127

État à la réception : Conforme

Chlore résiduel libre : NA
Chlore résiduel total : NA
Chloramine : NA
Résultat pH : NA
Température à la réception (°C) : NA

Paramètres	Accr. *	Méthode Interne	Résultats	Unités	Date d'analyse	Laboratoire
Plomb extractible	Oui	CHM35/ILCE69			2022-05-01	LG
Plomb (Pb)			**<10**	mg/Kg		

Commentaires de l'échantillon

Avertissement | Hors critères

Accr. * : Accréditation du MELCC -- NA : Non-Applicable -- TNI: Colonies trop nombreuses pour être identifiées -- TNC : Colonies trop nombreuses pour être comptées -- PNA : Paramètre non-accrédité
Laboratoire traitant : QC : Québec; LG : Longueuil; SH :Sherbrooke; ST : Sous-traitance externe / Méthode interne : CHM ou MBIO (méthodes QC) ; ILCE ou ILME (méthodes LG)

CONFIDENTIEL

eurofins | EnvironeX
4495, boul. Wilfrid-Hamel, suite 150, Québec (Québec) G1P 2J7 (418) 977-1220
2325, boul. Fernand-Lafontaine, Longueuil (Québec) J4N 1N7 (514) 332-6001
3705, boul. Industriel, Sherbrooke (Québec) J1L 1X8 (819) 481-1469
Sans frais : 1 (877) 977-1220

CERTIFICAT D'ANALYSES OFFICIEL

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Tél.: (514) 251-1313

Certificat : **3239692**
Demande d'analyse : 100160005
Date du rapport: 2022-05-03
Projet client : 1708298
Bon de commande : 1708298
Chargé de projets : Aude Briand : 514-332-6001
Adresse courriel : audebriand@labenvironex.com

Données sur le prélèvement

Échantillon EnvironeX : 6156460

Identification client : Pb001 b)-Peint. Blanche
Nature : Peinture
Nom du préleveur : Marie-Ève Bellefeuille
Date de prélèvement: 2022-04-25
Date de réception: 2022-04-27
Lieu du prélèvement : Voir Référence
Info. supplémentaires : mur blocs local U-127

État à la réception : Conforme

Chlore résiduel libre : NA
Chlore résiduel total : NA
Chloramine : NA
Résultat pH : NA
Température à la réception (°C) : NA

Paramètres	Accr. *	Méthode Interne	Résultats	Unités	Date d'analyse	Laboratoire
Plomb extractible	Oui	CHM35/ILCE69			2022-05-01	LG
Plomb (Pb)			**<10**	mg/Kg		

Commentaires de l'échantillon

Commentaires du certificat :

Approuvé par : Leila Gholami
Chimiste site de Longueuil

CHIMISTE Leila Gholami 2017-011 QUÉBEC

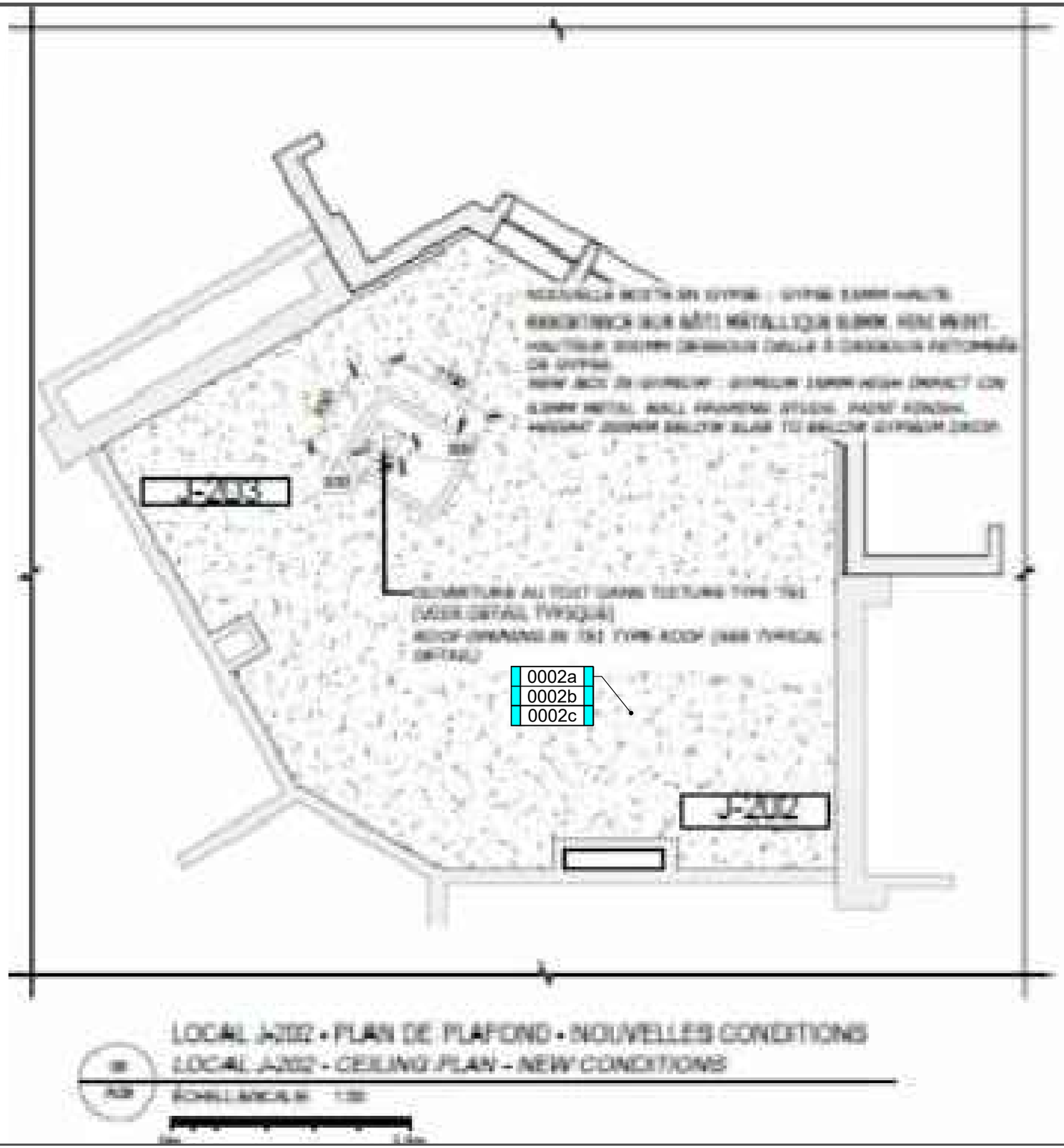
Avertissement | Hors critères

Accr. * : Accréditation du MELCC -- NA : Non-Applicable -- TNI: Colonies trop nombreuses pour être identifiées -- TNC : Colonies trop nombreuses pour être comptées -- PNA : Paramètre non-accrédité
Laboratoire traitant : QC : Québec; LG : Longueuil; SH :Sherbrooke; ST : Sous-traitance externe / Méthode interne : CHM ou MBIO (méthodes QC) ; ILCE ou ILME (méthodes LG)

CONFIDENTIEL

APPENDIX V

Drawings of Sample Location



LOCAL J-202 - PLAN DE PLAFOND - NOUVELLES CONDITIONS

LOCAL J-202 - CEILING PLAN - NEW CONDITIONS

ÉCHELLE 1:50

LÉGENDE :

0000x POINT D'ÉCHANTILLONNAGE (AMIANTE)

LE GROUPE GESFOR POIRIER, PINCHIN

REV.	DESCRIPTION	DATE

NOTES GÉNÉRALES :

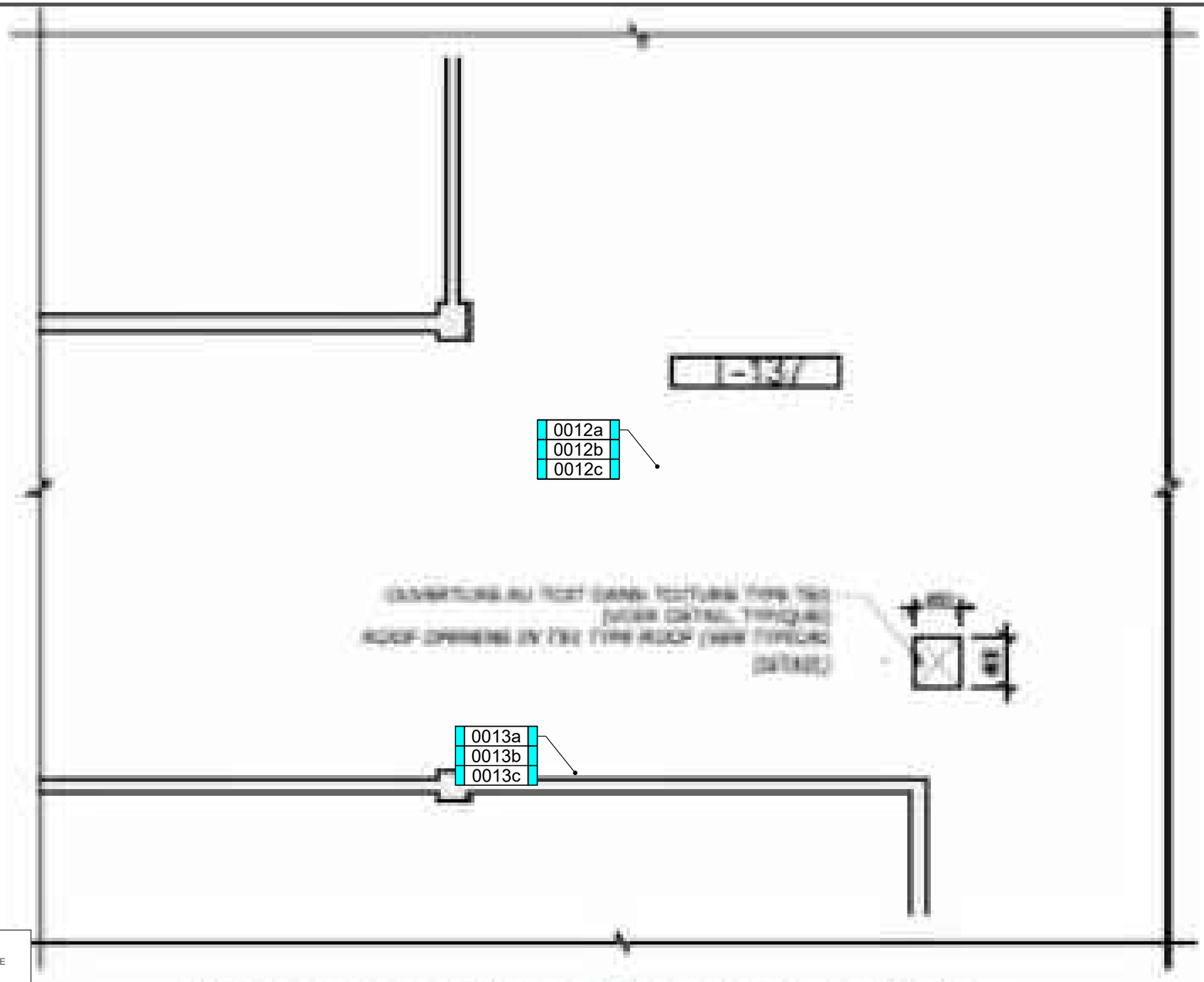
CLIENT :
SPAC

PROJET :
ÉVALUATION DES MATIÈRES DANGEREUSES

ADRESSE :
ÉTABLISSEMENT ARCHAMBAULT
242, BOULEVARD GIBSON,
SAINTE-ANNE-DES-PLAINES (QUÉBEC)

TITRE :
LOCALISATION DES ÉCHANTILLONS
LOCAL J-202

DATE :	NO DE PROJET :
MAI 2022	1708298
DESSINÉ PAR : J. SAUVAGEAU	**FIGURE :** 1 DE 6
VÉRIFIÉ PAR : M-È BELLE FEUILLE	
ÉCHELLE : AUCUNE	



LOCAL T-137 - PLAN DE PLAFOND - NOUVELLES CONDITIONS
LOCAL T-137 - CEILING PLAN - NEW CONDITIONS

LÉGENDE :

0000x POINT D'ÉCHANTILLONNAGE (AMIANTE)

LE GROUPE GESFOR POIRIER, PINCHIN

REV.	DESCRIPTION	DATE

NOTES GÉNÉRALES :

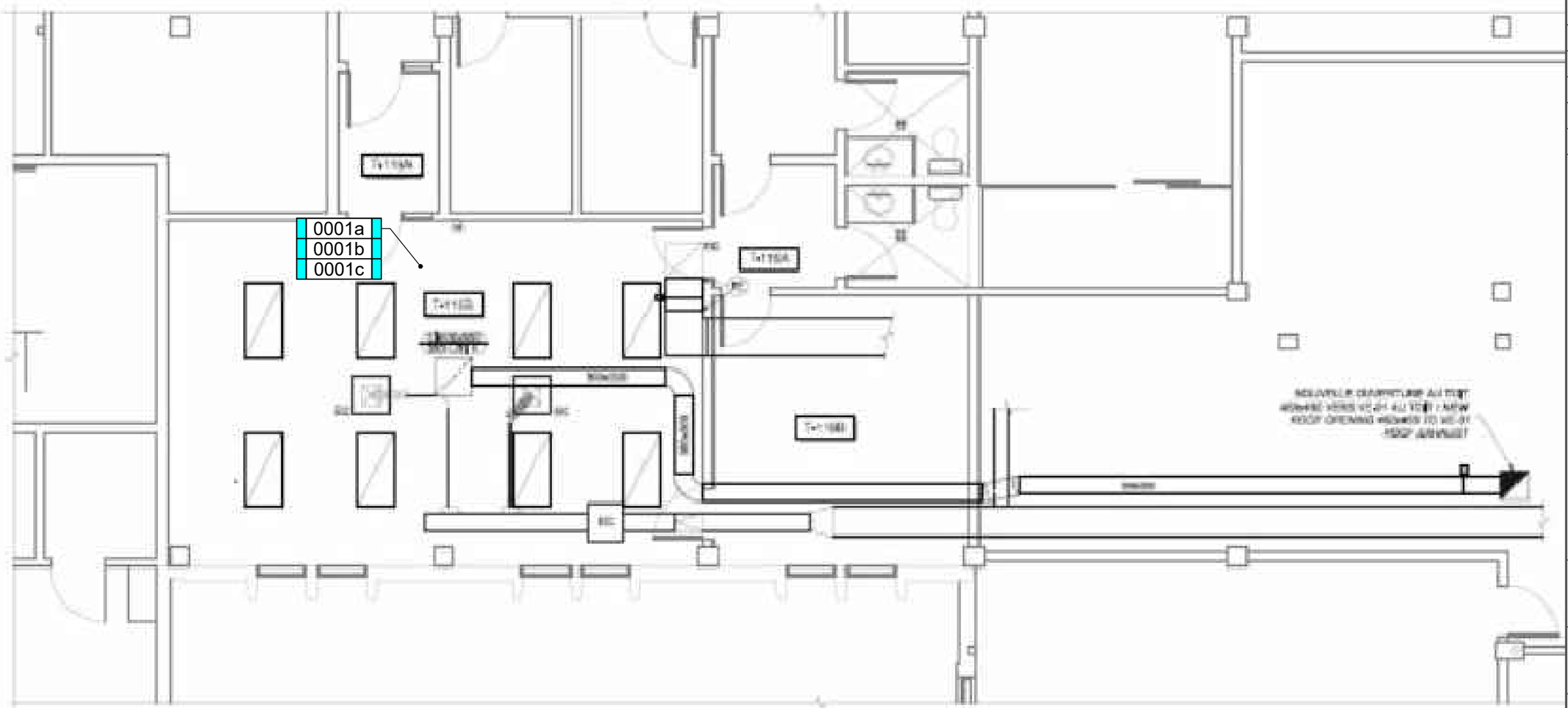
CLIENT :
SPAC

PROJET :
ÉVALUATION DES MATIÈRES DANGEREUSES

ADRESSE :
ÉTABLISSEMENT ARCHAMBAULT
242, BOULEVARD GIBSON,
SAINTE-ANNE-DES-PLAINES (QUÉBEC)

TITRE :
LOCALISATION DES ÉCHANTILLONS
LOCAL T-137

DATE :	NO DE PROJET :
MAI 2022	1708298
DESSINÉ PAR : J. SAUVAGEAU	**FIGURE :** 2 DE 6
VÉRIFIÉ PAR : M-È BELLE FEUILLE	
ÉCHELLE : AUCUNE	



LOCAL DES AUDITIONS / REZ-DE-CHAUSSÉE T-1158

HEARING ROOM / 1st FLOOR T-1158

LÉGENDE :

0000x POINT D'ÉCHANTILLONNAGE (AMIANTE)

LE GROUPE GESFOR POIRIER, PINCHIN

REV.	DESCRIPTION	DATE

NOTES GÉNÉRALES :

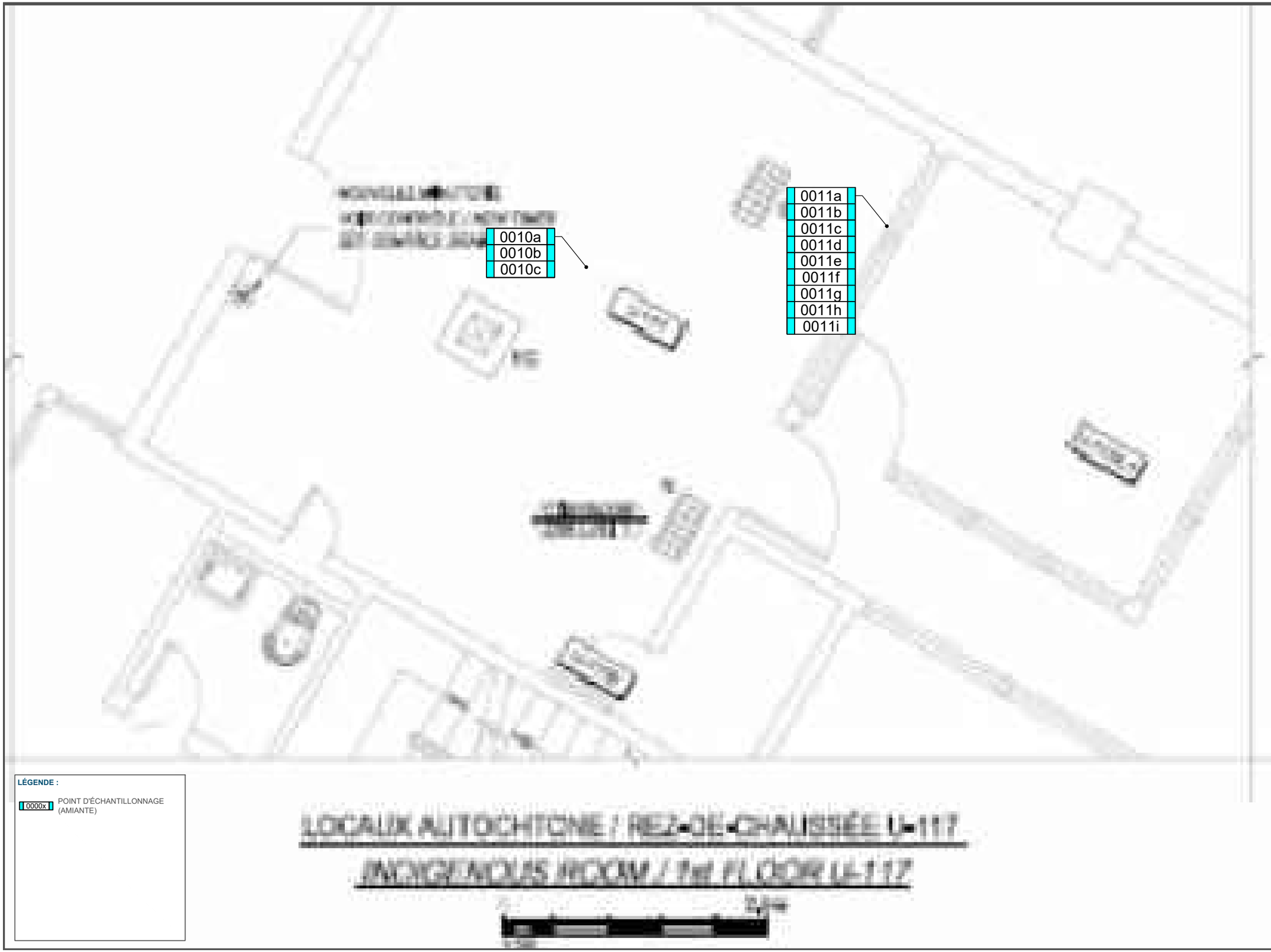
CLIENT :
SPAC

PROJET :
ÉVALUATION DES MATIÈRES DANGEREUSES

ADRESSE :
ÉTABLISSEMENT ARCHAMBAULT
242, BOULEVARD GIBSON,
SAINTE-ANNE-DES-PLAINES (QUÉBEC)

TITRE :
LOCALISATION DES ÉCHANTILLONS
LOCAL T-1158

DATE :	NO DE PROJET :
MAI 2022	1708298
DESSINÉ PAR : J. SAUVAGEAU	**FIGURE :** 3 DE 6
VÉRIFIÉ PAR : M-È BELLE FEUILLE	
ÉCHELLE : AUCUNE	



LÉGENDE :

0000x POINT D'ÉCHANTILLONNAGE (AMIANTE)

LE GROUPE GESFOR POIRIER, PINCHIN

REV.	DESCRIPTION	DATE

NOTES GÉNÉRALES :

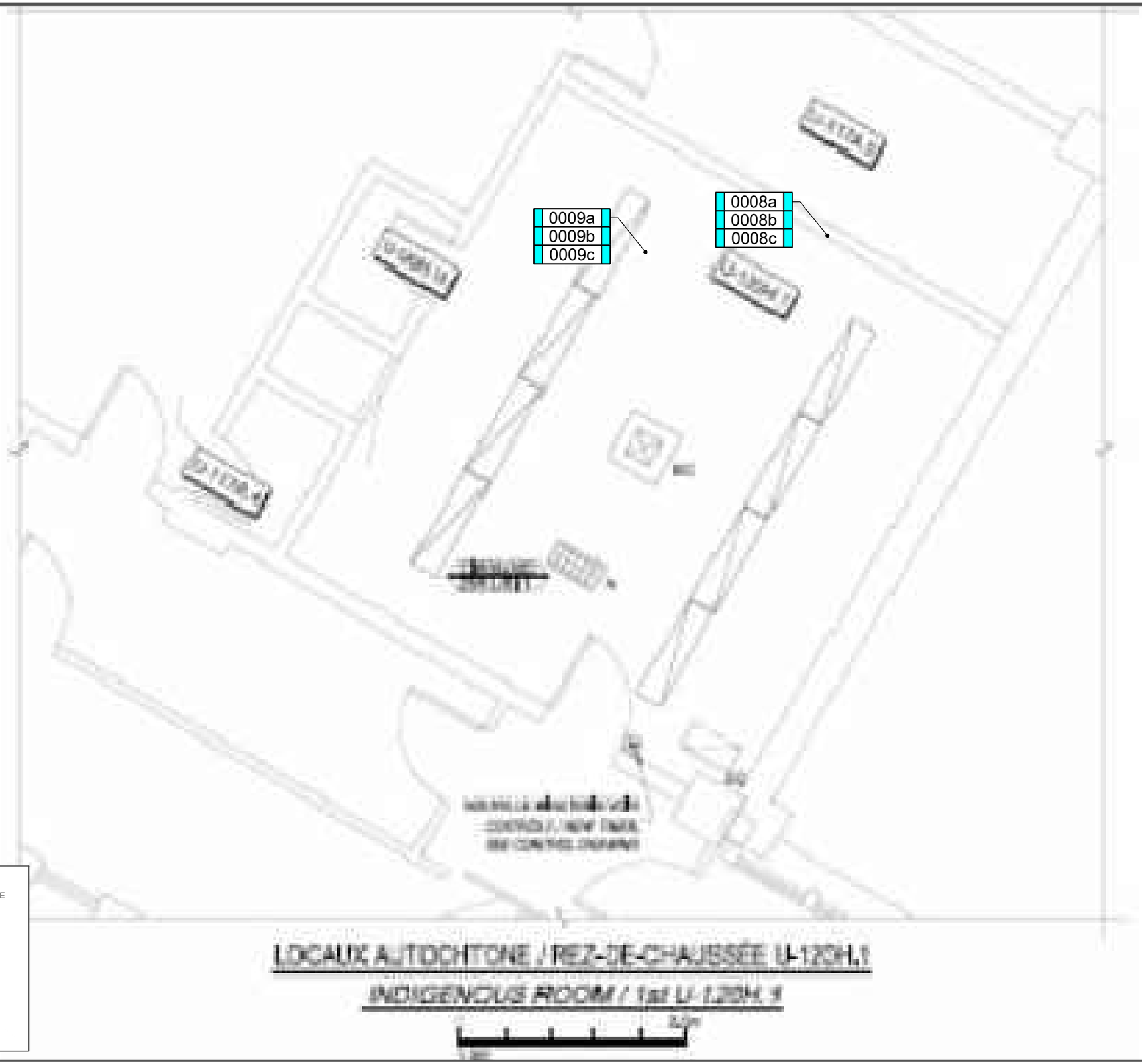
CLIENT :
SPAC

PROJET :
ÉVALUATION DES MATIÈRES DANGEREUSES

ADRESSE :
ÉTABLISSEMENT ARCHAMBAULT
242, BOULEVARD GIBSON,
SAINTE-ANNE-DES-PLAINES (QUÉBEC)

TITRE :
LOCALISATION DES ÉCHANTILLONS
LOCAL U-117

DATE :	NO DE PROJET :
MAI 2022	1708298
DESSINÉ PAR : J. SAUVAGEAU	**FIGURE :** 4 DE 6
VÉRIFIÉ PAR : M-È BELLE FEUILLE	
ÉCHELLE : AUCUNE	



LÉGENDE :

0000x POINT D'ÉCHANTILLONNAGE (AMIANTE)

LE GROUPE GESFOR POIRIER, PINCHIN

REV.	DESCRIPTION	DATE

NOTES GÉNÉRALES :

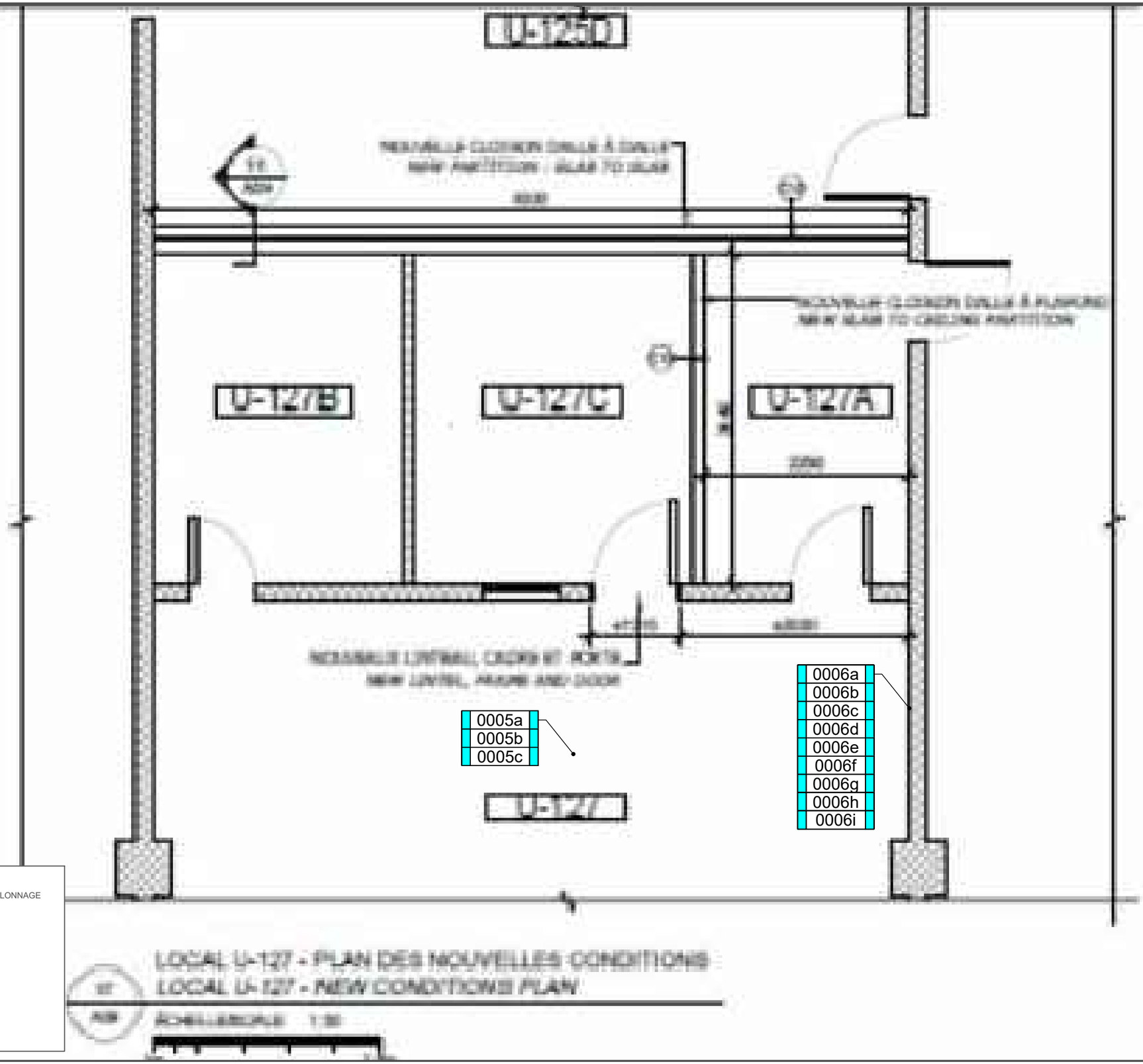
CLIENT :
SPAC

PROJET :
ÉVALUATION DES MATIÈRES DANGEREUSES

ADRESSE :
ÉTABLISSEMENT ARCHAMBAULT
242, BOULEVARD GIBSON,
SAINTE-ANNE-DES-PLAINES (QUÉBEC)

TITRE :
LOCALISATION DES ÉCHANTILLONS
LOCAL U-120H.1

DATE :	NO DE PROJET :
MAI 2022	1708298
DESSINÉ PAR : J. SAUVAGEAU	**FIGURE :** 5 DE 6
VÉRIFIÉ PAR : M-È BELLE FEUILLE	
ÉCHELLE : AUCUNE	



LOCAL U-127 - PLAN DES NOUVELLES CONDITIONS
LOCAL U-127 - NEW CONDITIONS PLAN

LÉGENDE :

0000x POINT D'ÉCHANTILLONNAGE (AMIANTE)

LE GROUPE GESFOR POIRIER, PINCHIN

REV.	DESCRIPTION	DATE

NOTES GÉNÉRALES :

CLIENT :
SPAC

PROJET :
ÉVALUATION DES MATIÈRES DANGEREUSES

ADRESSE :
ÉTABLISSEMENT ARCHAMBAULT
242, BOULEVARD GIBSON,
SAINTE-ANNE-DES-PLAINES (QUÉBEC)

TITRE :
LOCALISATION DES ÉCHANTILLONS
LOCAL U-127

DATE :	NO DE PROJET :
MAI 2022	1708298
DESSINÉ PAR : J. SAUVAGEAU	**FIGURE :** 6 DE 6
VÉRIFIÉ PAR : M-È BELLE FEUILLE	
ÉCHELLE : AUCUNE	