

APPENDIX F – DESIGNATED SUBSTANCES AND HAZARDOUS MATERIALS REPORT (DSSR)

REGIONAL MUNICIPALITY OF NIAGARA

2022 ASBESTOS REASSESSMENT

WELLAND REGIONAL CHILD CARE CENTRE, 25 BRUCE ST, WELLAND, ON

AUGUST 12, 2022

CONFIDENTIAL



ENVIRONMENTAL HEALTH & SAFETY,
COMPLIANCE





2022 ASBESTOS REASSESSMENT

WELLAND REGIONAL CHILD
CARE CENTRE, 25 BRUCE ST,
WELLAND, ON

REGIONAL MUNICIPALITY OF NIAGARA

REPORT (DRAFT)
CONFIDENTIAL

PROJECT NO.: 221-06405-00
DATE: AUGUST 12, 2022

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**Subject: Niagara Reassessment - 2022 Asbestos Reassessment Welland Regional Child
Care Centre**

WSP Canada Inc. (WSP) was retained by the Regional Municipality of Niagara to conduct an Asbestos Reassessment at 25 Bruce Street in Welland, Ontario.

The purpose of the reassessment is to assess the condition of previously identified asbestos-containing building materials, collect additional samples of any newly identified suspect asbestos-containing building materials, if found, and provide an annual update for Regional Municipality of Niagara's ongoing Asbestos Management Plan (AMP).

The following report outlines the reassessment methodologies and presents our findings and recommendations.

Please contact the undersigned should you have any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read 'J-Cirilli'.

Juan Cirilli, Dipl. T. (Env)
Project Manager, EHS - Compliance

SM/JC

WSP ref.: 221-06405-00

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1 INTRODUCTION

WSP Canada Inc. (WSP) was retained by the Regional Municipality of Niagara to conduct an Asbestos Reassessment at 25 Bruce Street in Welland, Ontario.

The asbestos reassessment was completed by WSP on June 27, 2022.

The purpose of this survey is to assess the condition of previously identified asbestos-containing materials and provide an annual update for Niagara Region's ongoing asbestos management program (AMP). This report should be provided to all prospective contractors (and in turn their sub-trades) as well as maintenance personnel who are likely to handle, encounter, or disturb building materials.

The primary objectives of the assessment were to:

- Develop an up-to-date inventory of the Asbestos-Containing Materials that are present in the accessible areas of the building;
- Document their locations, applications, concentrations, quantities, and current conditions; and
- Provide recommendations for their management, safe handling and/or removal.

The asbestos information in this reassessment report complies with the requirements of the Occupational Health & Safety Act, Ontario Regulation 278/05: Designated Substance - Asbestos on Construction Projects and in Building and Repair Operations with respect to asbestos-containing materials for the structures.

This report must be provided to building personnel or workers who work in close proximity to ACM or who might come into contact with, handle, or disturb these materials. This report must also be presented to prospective contractors (and in turn to their sub-trades) prior to entering into a contract for work that will be conducted in areas where ACM are present.

1.1 SCOPE OF WORK

WSP's Asbestos Reassessment was performed in a manner that's consistent with the degree of care, skill and diligence normally provided by members of the same profession performing the same or comparable services ("industry standards"), and included the following:

- Records review to identify any previously identified asbestos-containing materials (based on availability and applicability);
- A visual inspection of all previously identified asbestos-containing materials in accessible locations;
- Assessment of the condition of the asbestos-containing materials.

The assessment was intrusive (e.g. inspection within accessible false ceilings, walls, and other building spaces) but not destructive in nature. Inaccessible building spaces and cavities were not inspected as part of this assessment (e.g. spaces concealed by drywall, plaster, fixed panels; inside mechanical equipment such as boilers, furnaces, HVAC systems; inside electrical equipment/components or inside fire-rated materials such as doors).

Workers, maintenance personnel, and contractors, must be aware of the hazards of disturbing undisclosed/unidentified materials when breaking into inaccessible and/or concealed building spaces, cavities and areas. Undisclosed materials should be presumed to be asbestos containing until proven otherwise by testing by a qualified individual.

2 METHODOLOGY

2.1 GENERAL ASSESSMENT METHODOLOGY

WSP's assessment sought to identify building materials that may contain asbestos which is regulated and defined as a Designated Substances under the Ontario Occupational Health and Safety Act.

WSP's assessor(s) performed a systematic assessment of the building for the purposes of identifying asbestos-containing materials and documenting observations made about their locations and respective conditions. These observations form the basis for developing the recommendations provided within this report.

Reasonable efforts were made to access and inspect all areas of the building; however, the reassessment was limited by the following;

- Concealed areas that are not accessible.
 - Facility owned or stored items such as furniture, appliances, etc.
 - Internal components of electrical or mechanical systems (e.g. wiring, gaskets, boilers, elevator equipment, etc.).
 - Materials not associated with building construction, building materials or base building systems.
 - At the discretion of the assessor(s), materials which may have caused resultant damage to the building if sampled (e.g. roofing materials, caulks, adhesives, glazing compounds, interior of fire doors, exterior cladding, grouts, leveling compounds, mortars and adhesives etc.).
 - Vermiculite insulation which may be present within wall/ceiling cavities (inaccessible without select demolition).
 - Operations or process materials or products (e.g. chemicals, raw materials, etc.).
 - Underground or subsurface pipes, systems or materials.
-

2.2 ASBESTOS REASSESSMENT METHODOLOGY

The surveyors inspected the subject building for the presence and condition of previously identified friable and non-friable asbestos-containing materials (ACM). Examples of ACMs commonly found in buildings may include:

- Sprayed insulation
- Acoustic/texture plaster
- Drywall joint compound
- Mechanical insulation
- Asbestos cement
- Pipe Insulation
- Acoustic ceiling tiles
- Vinyl floor tiles
- Vinyl sheet flooring
- Plaster

Asbestos means any of the following fibrous silicates: actinolite, amosite, anthophyllite, chrysotile, crocidolite or tremolite. According to Ontario Regulation 278/05 (O. Reg. 278/05) entitled "Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations", the term 'friable material' is applied to a material that when dry, can be crumbled, pulverized or powdered with moderate hand pressure. Asbestos materials that are friable have a greater potential to release airborne asbestos fibres into the air when disturbed. Common friable

asbestos-containing buildings materials used in the past include: sprayed fireproofing, stucco, texture coat, and thermal pipe and jacket insulation.

“Non-friable” materials are those materials which are not easily crumbled or pulverized by hand pressure, and whose asbestos fibres are less likely to be released into the air when disturbed, because they’re bound by resins, or cements. Common types of non-friable asbestos containing materials found in buildings include: vinyl floor tiles, gasket materials, asbestos cement (Transite™) pipe, Transite™ board and asbestos textiles. However, when damaged, deteriorated, or vigorously disturbed with power tools, the resulting dust/debris becomes highly friable.

3 REGULATORY CONTEXT

Ontario Regulation 278/05 (O. Reg. 278/05), made under the Act, entitled “Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations” came into effect on November 1, 2005, with some sections contained therein becoming effective on November 1, 2007.

Section 8 of Ontario Regulation 278/05 indicates that if asbestos-containing materials are identified within a building, the property owner must keep on the premises a record containing all asbestos-containing materials, including the location, friability and condition of the materials. Furthermore, this record must be updated at least once in each 12-month period or whenever the owner becomes aware of new information relating to asbestos-containing materials within the buildings.

Section 30 of the Occupational Health and Safety Act (the Act) stipulates that prior to the commencement of a project, a list shall be prepared of all Designated Substances that are present at the building/assessed areas. In accordance with the Act, the locations of Designated Substances must be identified, and provided in writing to all prospective constructors, contractors and sub-contractors who may work, disturb or come into contact with these types of materials, prior to project tendering, or entering into contracts for work.

The term “Designated Substance” refers to the eleven chemical or physical agents specifically identified within the Act. Each of these substances is governed by a consolidated regulation, Designated Substances - Ontario Regulation 490/09 (O. Reg. 490/09) that defines the minimum health and safety requirements for assuring safe worker-substance interaction as well as the obligations of employers and workers in workplaces containing these substances. O. Reg. 490/09 further stipulates the maximum concentrations of each of the respective substance to which a worker may be exposed, according to short-term exposure values and time-weighted average exposure values.

In the event that any abatement activities are required to be completed as part of scheduled renovation work, this information must be appropriately documented, and the Asbestos Management Plan must be updated to reflect the changes to conditions on site as they pertain to asbestos. A close out report stating that the materials are no longer present is also required once the materials are removed.

4 SITE OVERVIEW

4.1 DESCRIPTION

The following table presents a general overview of the site/building(s), and the areas included or excluded in WSP’s reassessment.

Table 4.1 **Site Description**

ITEM	DESCRIPTION
Address	25 Bruce Street, Welland, ON

ITEM	DESCRIPTION
Current Use/State	Community services
Floors	One (1)
Assessed Areas	Entire bulding
Excluded Areas	Roof
Exterior Walls	Brick
Roof	Flat (Sloped)
Interior Walls	Concrete block, drywall
Interior Floors	Concrete, vinyl flooring
Interior Ceilings	Drywall

4.2 RECORDS REVIEW

Prior to conducting the site inspection, WSP reviewed the following reports and documents which were provided by the client:

Table 4.2 Previous Reports/Documents Reviewed by WSP

DATE	REPORT TILE	AUTHOR
May 2017	Designated Substances and Hazardous Materials Survey – Welland Regional Child Care Centre – 25 Bruce Street, Welland, ON	WSP

Relevant information from the above noted reports has been incorporated into our methodology and findings where applicable.

No changes in ACM inventory or location were observed during this assessment.

5 FINDINGS AND RECOMMENDATIONS

5.1 ASBESTOS

5.1.1 ASBESTOS-CONTAINING MATERIALS

In accordance with the requirements stipulated in O. Reg. 278/05, homogenous materials (i.e. materials uniform in color and texture) must be considered to be asbestos-containing, if any sample which is collected from that homogeneous material, is identified to have an asbestos concentration of 0.5% or greater by dry weight.

The table below summarizes only those materials which were identified, or presumed, to be asbestos-containing materials and are presented along with the recommended remedial actions for each respective material.

Recommended actions for management, repair or removal of these materials, are based on the requirements and procedures specified by O. Reg. 278/05 and have been suggested based on the type of disturbance which is anticipated or likely. Alternate handling, repair and removal procedures must fully comply with the requirements of O. Reg. 278/05 (as amended). Refer to Appendix C “Evaluation Criteria” for condition, accessibility and action definitions. Refer to Appendix B “Site Photographs” for photographs of the following asbestos-containing materials.

Table 5.1 Previously Identified Asbestos-Containing Materials

IDENTIFIED MATERIALS	OBSERVED LOCATIONS	ACTION ¹	PHOTO
Vinyl Floor Tiles (12"x12" Vinyl Floor Tiles; Red with Black Dots)	Observed in the Storage room, corridor and closet of the building.	Action 7 Routine surveillance of ACM in good condition.	1
Gold acoustic coating	Observed on underside of sink in the building.	Action 7 Routine surveillance of ACM in good condition.	2
Parging Cement	Observed to be concealed during this investigation.	Action 7 Routine surveillance of ACM in good condition.	N/A
Exterior Window Caulking (Presumed)	Observed throughout the exterior of the building.	Action 7 Routine surveillance of ACM in good condition.	3
Roofing Materials (Presumed)	Observed throughout the roof of the building.	Action 7 Routine surveillance of ACM in good condition.	N/A

Notes:

1. Refer to Appendix C "Asbestos-Containing Material Evaluation Criteria" for details.
2. Refer to Appendix A "Asbestos Containing Materials Inventory" for detailed locations and Material description.

5.1.2 SUSPECTED ASBESTOS-CONTAINING MATERIALS

Reasonable efforts were made to access and inspect all areas of the building during the original sampling program; however, the investigation of the following potential areas for asbestos-containing materials may have been limited. Limitations include;

- Concealed areas that are not accessible.
- Buried services such as underground piping; these pipes were commonly manufactured from a non-friable form of asbestos cement but are inaccessible for sampling without excavation work.
- Fire rated doors with asbestos-containing insulation within may be present but are inaccessible without damaging the integrity of the door. The interior of these door should be inspected prior to disposal and/or significant disturbance (i.e. cutting or breaking).
- Vermiculite insulation within wall cavities may be present but inaccessible without demolition.
- Packing materials in valves, fittings, etc., may be present but are inaccessible without demolition activities (e.g. within concealed areas behind bulkheads).
- Internal components of electrical or mechanical systems (e.g. wiring, gaskets, boilers, elevator equipment, etc.).
- Materials not associated with building construction, building materials or base building systems.
- At the discretion of the assessor(s), materials which may have caused resultant damage to the building if sampled (e.g. some roofing materials, caulking, glazing compounds, exterior cladding, grouts, mortars and adhesives etc.).

If during the course of work, renovation, alteration or demolition to any part of the building, reveals materials which are suspected to contain asbestos, all work must stop until that material is inspected/tested by a qualified person.

5.1.3 SHORT TERM RECOMMENDATIONS

All the above noted asbestos-containing materials were observed to be in good condition at the time of our site investigation. As such, no short-term recommendations are required.

5.1.4 LONG TERM RECOMMENDATIONS

Based on the WSP's investigation, the following maintenance/management activities are recommended:

- The condition of the above noted materials must be inspected on an annual basis by a qualified person.
- Removal or disturbance of all identified asbestos-containing materials (ACMs) must be conducted prior to any renovation/demolition expected to disturb these materials. Non-friable ACM identified can be removed using Type 1 or Type 2 or Type 3 removal procedures, depending on removal procedures used by the contractor as specified in Ontario Regulation 278/05.
- A project-specific Designated Substance Survey should be conducted prior to any renovations or demolition activities.
- If during renovation or demolition, additional materials suspected of containing asbestos are encountered, they must be handled in accordance with the appropriate guidelines and regulations. It should be noted that asbestos may be present in enclosed spaces not accessible at the time of the site visit.

6 CLOSURE

As this assessment was generally non-destructive in nature, asbestos could be present in areas not accessible to the surveyor for identification. Contractors and maintenance personnel should be notified of the possibility of unidentified materials when breaking into enclosed areas. Suspect friable and non-friable building materials discovered in these areas should be treated as asbestos until proven otherwise. Materials equivalent or identical in description to those listed should be considered to be ACM and handled appropriately.

This report is prepared for the sole use of REGIONAL MUNICIPALITY OF NIAGARA, who are responsible for its distribution to any third parties. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of the third party. The conclusions and recommendations contained in this assessment report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted industry practices for asbestos surveys and regulatory requirements for sampling and identifying asbestos.

APPENDIX

A

ASBESTOS CONTAINING MATERIALS INVENTORY

THE REGIONAL MUNICIAPLITY OF NIAGARA ACM REASSESSMENT INVENTORY
WELLAND REGIONAL CHILD CARE CENTRE
25 BRUCE STREET, WELLAND, ONTARIO
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BUILDING INFORMATION					MATERIAL INFORMATION									SAMPLE INFORMATION			MANAGEMENT CONSIDERATIONS		
Building Number/Name	Initial Survey Date	Room ID	Room Name	Level	Component	Material	Description	Quantity	Units	Condition	Accessibility	Friable	Photo No.	Sample ID	Reference Sample ID	Percent and Asbestos Type	Corrective Action	Type of Removal	Date of Reassessment Inspection
BLDG0027 Welland Regional Child Care Centre	February 24, 2015	10	Storage Room	1	Floor	Vinyl Floor Tiles	12"x12" Vinyl Floor Tiles; Red with Black Dots	200	sf	Good	A	No	1	-	BLDG0027-AS4	3.8% Chrysotile	7	Type 1	June 27, 2022
BLDG0027 Welland Regional Child Care Centre	February 24, 2015	12	Storage Room	1	Floor	Vinyl Floor Tiles	12"x12" Vinyl Floor Tiles; Red with Black Dots	150	sf	Good	A	No	1	-	BLDG0027-AS4	3.8% Chrysotile	7	Type 1	June 27, 2022
BLDG0027 Welland Regional Child Care Centre	February 24, 2015	19	Corridor	1	Floor	Vinyl Floor Tiles	12"x12" Vinyl Floor Tiles; Red with Black Dots	100	sf	Good	A	No	1	-	BLDG0027-AS4	3.8% Chrysotile	7	Type 1	June 27, 2022
BLDG0027 Welland Regional Child Care Centre	February 24, 2015	20	Closet	1	Floor	Vinyl Floor Tiles	12"x12" Vinyl Floor Tiles; Red with Black Dots	15	sf	Good	A	No	1	BLDG0027-AS4	-	3.8% Chrysotile	7	Type 1	June 27, 2022
BLDG0027 Welland Regional Child Care Centre	February 24, 2015	9	Play room #2	1	Sink	Gold Acoustic Coating	Gold acoustic coating on underside of sink	1	ea	Good	A	No	2	BLDG0027-AS14	-	5% Chrysotile	7	Type 1	June 27, 2022
BLDG0027 Welland Regional Child Care Centre	February 24, 2015	2	Kitchen	1	Piping	Pipe Insulation	Parging Cement Insulation on Piping	6	ea	Good	D	Yes	-		BLDG0027-AS6	50% Chrysotile	7	Type 2 glove bag or Type 3	June 27, 2022
BLDG0027 Welland Regional Child Care Centre	February 24, 2015	3	Kitchen Storage	1	Piping	Pipe Insulation	Parging Cement Insulation on Piping	1	ea	Good	D	Yes	-		BLDG0027-AS6	50% Chrysotile	7	Type 2 glove bag or Type 3	June 27, 2022
BLDG0027 Welland Regional Child Care Centre	February 24, 2015	4	Staff Lounge	1	Piping	Pipe Insulation	Parging Cement Insulation on Piping	3	ea	Good	D	Yes	-		BLDG0027-AS6	50% Chrysotile	7	Type 2 glove bag or Type 3	June 27, 2022
BLDG0027 Welland Regional Child Care Centre	February 24, 2015	7	Front Entrance	1	Piping	Pipe Insulation	Parging Cement Insulation on Piping	7	ea	Good	D	Yes	-		BLDG0027-AS6	50% Chrysotile	7	Type 2 glove bag or Type 3	June 27, 2022
BLDG0027 Welland Regional Child Care Centre	February 24, 2015	14	Washroom	1	Piping	Pipe Insulation	Parging Cement Insulation on Piping	1	ea	Good	D	Yes	-		BLDG0027-AS6	50% Chrysotile	7	Type 2 glove bag or Type 3	June 27, 2022
BLDG0027 Welland Regional Child Care Centre	February 24, 2015	15	Washroom	1	Piping	Pipe Insulation	Parging Cement Insulation on Piping	1	ea	Good	D	Yes	-		BLDG0027-AS6	50% Chrysotile	7	Type 2 glove bag or Type 3	June 27, 2022
BLDG0027 Welland Regional Child Care Centre	February 24, 2015	17	Corridor	1	Piping	Pipe Insulation	Parging Cement Insulation on Piping	8	ea	Good	D	Yes	-	BLDG0027-AS6	-	50% Chrysotile	7	Type 2 glove bag or Type 3	June 27, 2022
BLDG0027 Welland Regional Child Care Centre	-	-	Exterior	-	-	Caulking	Exterior Caulking are assumed to contain asbestos until sampling can confirm otherwise	-					3			Assumed	8	Type 1	-
BLDG0027 Welland Regional Child Care Centre	-	-	Roof	-	-	Roofing Materials & Caulking	Roofing Materials & Caulking are assumed to contain asbestos until sampling can confirm otherwise	-					-			Assumed	8	Type 1	-

APPENDIX

B

SITE PHOTOGRAPHS





PHOTO NO.	MATERIAL DESCRIPTION & LOCATION	PHOTO
1	Representative photo of asbestos-containing vinyl floor tile (12"x12" Vinyl Floor Tiles; Red with Black Dots) in corridor observed in good condition.	
2	Representative photo of gold acoustic coating on underside of sink observed in good condition.	

PHOTO NO.	MATERIAL DESCRIPTION & LOCATION	PHOTO
<u>3</u>	Representative photo of presumed asbestos- containing exterior window caulking observed in good condition.	

APPENDIX

C

EVALUATION CRITERIA

ASBESTOS-CONTAINING MATERIAL EVALUATION CRITERIA

A description of the criteria used in evaluating the condition, accessibility and exposure risk of asbestos-containing materials (ACM) is provided below.

ASSESSMENT OF CONDITION

SPRAY-APPLIED FIREPROOFING, INSULATION AND TEXTURED 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 Assessor to be familiar with the irregular surface texture typical of sprayed asbestos products. GOOD condition includes un-encapsulated 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 Assessor reassessment form.

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 building with ACM, regardless of the reported condition.

OTHER ACM

In evaluating the condition of mechanical insulation (on boilers, breaching, 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.

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 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 the condition and extent of ACM is limited or impossible, depending on the Assessor's ability to visually examine the materials in Access D.

DEFINITION OF ACTION LEVELS

Based on the results of the inspection and bulk sample analysis of samples collected and submitted for testing, recommendations were provided for compliance with regulation. These include assigned "Action Levels" to assist in the prioritization of corrective measures. The Action Matrix provided below establishes the recommended asbestos control action. The measures that are to be taken for each "Action Level" are described in full following the matrix.

ACM ACTION TABLE

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

CONDITION

ACCESS	Good	Fair	Poor	DEBRIS
(C) concealed	ACTION 7	ACTION 6	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. 4. Suspect ACM are to comply with ACTION 8 requirements.				

Description of Actions

ACTION LEVEL	REQUIRED ACTION
“ACTION 1”	<p><i>Immediate Clean-Up of Debris that is Likely to Be Disturbed</i></p> <p>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 will immediately notify the owner of this condition.</p>
“ACTION 2”	<p><i>Type 2 Precautions for Entry into Areas with ACM DEBRIS</i></p> <p>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 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.</p>
“ACTION 3”	<p><i>ACM Removal Required for Compliance</i></p> <p>Remove ACM for compliance with regulatory requirements. Utilize asbestos procedures appropriate to the scope of the removal work.</p>
“ACTION 4”	<p><i>Type 2 Precautions for Access into Areas Where ACM is Present & Likely to be Disturbed by Access</i></p> <p>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).</p>
“ACTION 5”	<p><i>Proactive ACM Removal</i></p> <p>Remove ACM in lieu of repair, or at locations where the presence of asbestos in GOOD condition is not desirable.</p>

ACTION LEVEL	REQUIRED ACTION
“ACTION 6”	<p><i>ACM Repair</i></p> <p>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.</p>
“ACTION 7”	<p><i>Asbestos Management Program with Routine Surveillance</i></p> <p>Implement an Asbestos Management Program, including routine surveillance of ACM. Trained workers or contractors must use appropriate asbestos precautions (Type 1, Type 2 or Type 3) during disturbance of the remaining ACM.</p>
“ACTION 8”	<p><i>Suspect Materials</i></p> <p>Implement the Asbestos Management Program for building materials that historically contained asbestos but cannot, or have not, been sufficiently tested for asbestos content. These materials are identified as SUSPECT MATERIALS.</p>

GLOSSARY OF TERMS

Accessibility: The terms easily accessible, less accessible, and inaccessible are used to describe the ease with which asbestos can be accessed by tenants, the public, employees and contractors in the building. **Easily accessible** indicates that ACM is visible from the floor and can be touched by building occupants, and therefore has a potential for significant damage. **Less accessible** indicates that ACM is not visible from the floor, or if it is visible, it is high enough not to be touched by building occupants, and has a potential for damage. **Inaccessible** indicates that ACM is located behind masonry, drywall, or other types of solid enclosures and is only accessible after destruction of the enclosure, and has a low potential for damage.

ACM: Asbestos-Containing Material. A material that contains greater than 0.5% asbestos by dry weight as per Ontario Regulation 278/05 and is used to refer to the vastly different types of such material.

Amosite: The technical name for ‘brown’ asbestos.

AMP: Asbestos Management Plan

Asbestos: A group of naturally occurring fibrous minerals with current or historical commercial usefulness due to their extraordinary tensile strength, poor heat conduction, and relative resistance to chemical attack.

Asbestos Abatement: Procedures to control fiber release from asbestos-containing materials in a building or to remove them entirely, including removal, encapsulation, repair, enclosure, encasement, and operations and maintenance programs.

Asbestos Cement: A hard product that contains up to 15% asbestos fibres which can be any of the three main types. This is a relatively safe material provided it remains intact as the cement binds the asbestos fibres; breakage will lead to fibre release.

Asbestos Control: Minimizing the generation of airborne asbestos fibres until a permanent solution is developed.

Asbestos Debris: Pieces of an ACM that can be identified by color, texture, or composition, or means dust, if the dust is determined by an accredited inspector to be ACM.

Asbestos Fibres: Fibres with their length being greater than five microns (length to width ratio of 3:1), generated from an asbestos-containing material.

BAS: Building Asbestos Supervisor.

Bulk Sample: A sample of material such as boarding, insulation or debris taken by an accredited surveyor to be tested for asbestos fibre content by an accredited laboratory.

Chrysotile: The technical name for ‘white’ asbestos.

Condition: The condition of ACM is described using the designations: good, fair and poor. **Good** refers to ACM with no visible damage or deterioration, or showing only very limited damage or deterioration. **Fair** refers to ACM with some damage or deterioration (less than 10% of the material). **Poor** refer to ACM that is significantly damaged or deteriorated (at least 10% of the material).

Crocidolite: The technical name for ‘blue’ asbestos.

Designated Substances Regulations: A series of Regulations made by the Ministry of Labour under the Occupational Health and Safety Act. The regulations provide management protocols and guidelines to the following eleven substances: acrylonitrile, arsenic, asbestos, benzene, coke oven emissions, ethylene oxide, isocyanates, lead, mercury, silica and vinyl chloride.

Demolition: Complete dismantling or the complete or partial destruction of a building, structure, ship or plant such that it cannot be used in that form again.

Friable ACM: Any material that contains more than 0.5% asbestos by weight and can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand.

HEPA Filter: High Efficiency Particulate Air Filter.

Homogeneous Area: Defined by the US EPA as containing material that is uniform in texture and appearance, was installed at one time and is unlikely to consist of more than one type or formulation of material.

Major Action: All response actions requiring Type 3 ACM Removal Procedures, or Type 2 Removal Procedures involving the removal of friable ACM and provisions of an enclosure.

Management Assessment: A assessment carried out without disturbing any part of the fabric, components or finishes. Samples may be taken.

MOL: Ministry of Labour.

O&M: Operations and Maintenance Program.

O. Reg.: Ontario Regulations.

Non-Friable ACM: Any material that contains more than 0.5% asbestos by weight but cannot be pulverized under hand pressure.

PACM: Presumed Asbestos-Containing Materials. All thermal system insulation, surfacing material and asphalt/vinyl flooring in a building constructed prior to 1981 that has not been appropriately tested are presumed asbestos-containing materials.

PPE: Personal Protective Equipment such as overalls, masks, gloves etc.

Pre-Demolition Assessment: A assessment similar to the Refurbishment Assessment but also taking core samples from partitions, lifting floorboards and investigating back to the structure where possible.

Refurbishment Assessment: A assessment similar to the Management Assessment but also involves entering into accessible ducts, suspended ceilings and other accessible voids. Samples are almost always taken.

RPE: Respiratory Protective Equipment. The different types of face masks worn appropriate to the risk. Where the risk assessment shows that the Control Limit will be exceeded RPE must be worn.

Surveyor: Any person who provides professional health and safety services relating to asbestos- containing construction material. The activities of a surveyor include building inspection, abatement project design, project administration, sample collection, preparation of asbestos management plans, clearance monitoring, and supervision of site surveillance technicians.

Type 1: Asbestos Abatement Operation with ACM as an operation described by O. Reg. 278/05 in subsection 12 (2), generally an operation that does not cause asbestos fibres to become airborne.

Type 2: Asbestos Abatement Operation with ACM as an operation described by O. Reg. 278/05 in subsection 12 (3), generally a major operation with limited scope of work.

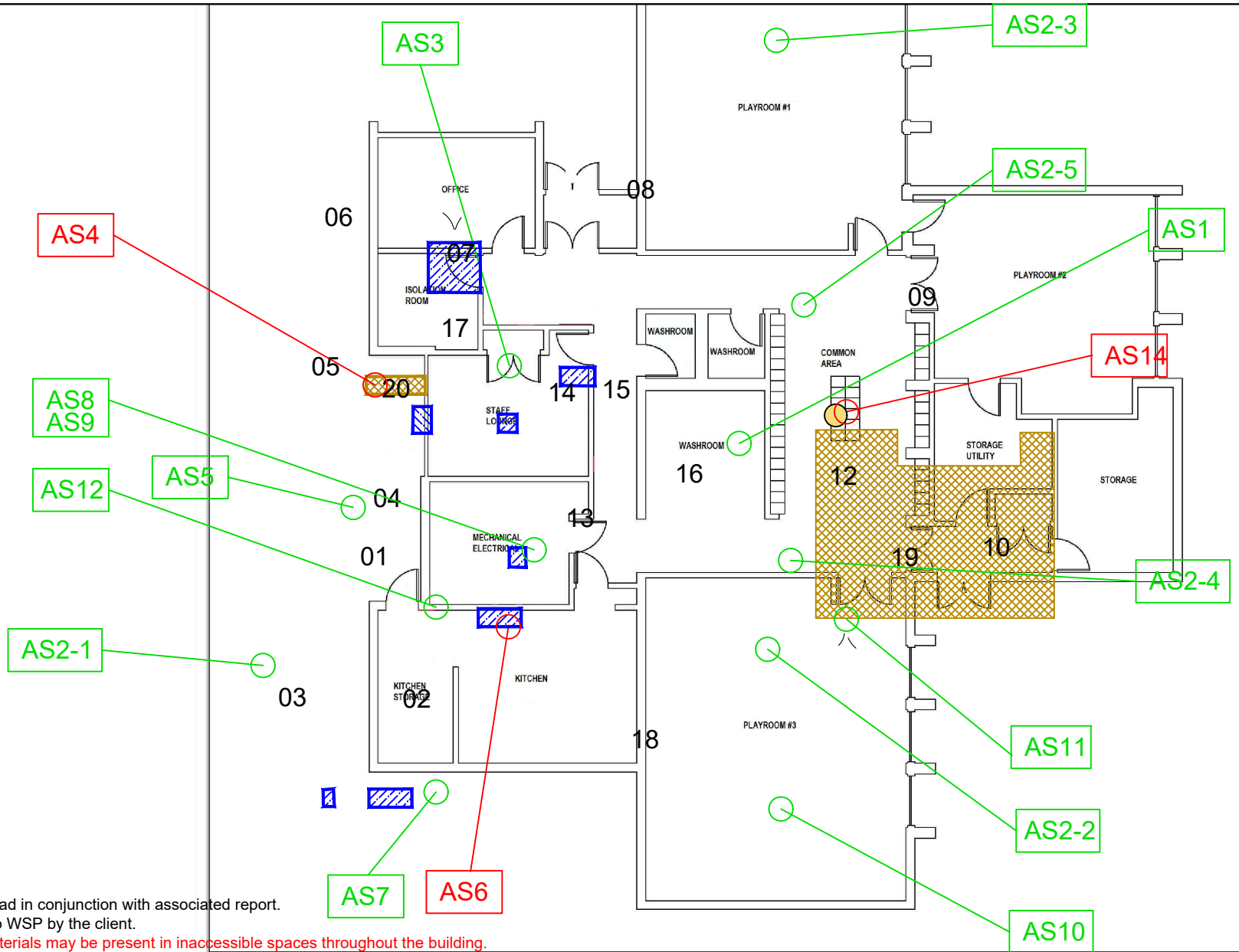
Type 3: Asbestos Abatement Operation with ACM as an operation described by O. Reg. 278/05 in subsection 12 (4), generally a major operation.

APPENDIX

D

DRAWINGS






Note:

1. This drawing must be read in conjunction with associated report.
2. Drawing was provided to WSP by the client.
3. Asbestos-containing materials may be present in inaccessible spaces throughout the building.
4. Asbestos-containing vinyl floor tiles may extend beneath other flooring materials (i.e. carpet, wood, ceramic tiles, etc.) in adjacent areas.

Legend:

- Location of Asbestos Containing Vinyl Floor Tile
- Location of Asbestos Containing Paring Cement on Piping
- Location of Asbestos-Containing Gold Acoustic Sink Undercoating
- Negative Asbestos Result
- Asbestos - Containing Result

Client: REGIONAL MUNICIPALITY OF NIAGARA		Project No.: 221-06405-00	Drawing No.: 1
Drawn: SM	Approved: JC	Title: MAIN FLOOR	
Date: August 2022	Scale: N.T.S.	Project: 2022 ASBESTOS REASSESSMENT SURVEY BLDG0027 - CS - WELLAND REGIONAL CHILD CARE CENTRE	
Original Size: Letter	Rev: N/A	 <div>2 International Blvd, Suite 201 Toronto, ON M9W 1A2 T: 416-798-0065 F: 416-798-0518</div>	