September 29, 2020 Project No. 20147153(1000)

Ms. Rachel Smitton
Regional Municipality of Durham
605 Rossland Road East
Whitby, Ontario
L1N 6A3

PRE-RENOVATION DESIGNATED SUBSTANCE AND HAZERDOUS MATERIALS ASSESSMENT SURVEY – 1615 DUNDAS STREET EAST, WHITBY, ONTARIO

Dear Ms. Smitton,

The Regional Municipality of Durham (the Region) retained Golder Associates Ltd. (Golder) to conduct a pre-renovation designated substance survey (DSS) at 1615 Dundas Street, Oshawa, Ontario (the Site). The survey was performed to identify the presence of designated substances, as required under the Ontario Occupational Health and Safety Act, R.S.O., as amended (the Act), prior to renovation activities occurring within the Second Floor, Oral Health Clinic and Oral Health Administration Office.

The purpose of the assessment was to identify and compile an inventory of designated substances and select hazardous materials, and where applicable provide recommendations to remove or manage these materials prior to renovation activities. The investigation was conducted by Ms. Ashley Weissbach with Golders EH&S Group on September 10th, 2020.

SCOPE OF WORK

The DSS scope of work included the following:

- Conduct a Site reconnaissance and walkthrough to identify designated substances and select hazardous materials;
- Collect representative samples of materials suspected to contain asbestos and paints containing lead and submit samples for analysis to an independent laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) and/or the American Industrial Hygiene Association (AIHA); and,
- Prepare a report identifying the presence, location, condition and accessibility of asbestos-containing materials (ACM), lead-containing materials and other designated substances/hazardous materials.

Due to Site building usage, the majority of the designated substances (i.e. acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates and vinyl chloride) were not anticipated to be present and were not observed during the investigation.

METHODOLOGY

Asbestos-Containing Materials

The survey involved a limited intrusive assessment to determine type and extent of ACM present. Where deemed necessary, bulk samples of each homogeneous material or component suspected to contain asbestos, were collected and submitted for laboratory analysis. Sample collection consisted of obtaining a small volume of suspect material, placing it in an individual plastic bag, and submitting it for asbestos content analysis to an independent NVLAP/AIHA certified laboratory.

As prescribed under S. 3(1) of the Regulation Respecting Asbestos on Construction Projects and in Buildings and Repair Operations, as amended (O. Reg. 278/05), samples were analyzed for asbestos type and content following the U.S. Environmental Protection Agency (EPA) - Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, June 1993. Only those materials that could be sampled without causing imminent damage or that could be sampled safely were included in the program.

Lead-Containing Paint/Materials

Visual identification and systematic sampling of lead-containing paint (LCP) was completed during the assessment. Testing for LCP was completed by collecting paint chip samples of the most common finishes and sending them to a laboratory for analysis, following the US EPA 846 Method 3050B where each sample is digested, diluted, and analyzed by flame atomic absorption spectroscopy (FAAS).

Other Designated Substances and Selected Hazardous Materials

Sampling of the remaining designated substances or selected hazardous materials was not included in the scope of work. Mercury, where present in electrical equipment, is contained within a vial or a tube and therefore sampling is not practical. Similarly, silica is a common component of many building construction materials (i.e. concrete and masonry products) and therefore sampling for confirmation purposes is not required. The presence of ozone depleting substances (ODSs) was determined by gathering label information from suspect refrigeration units, where accessible. The Site was also visually assessed for the presence of polychlorinated biphenyls (PCBs) in fluorescent light ballasts, and for evidence of obvious or suspect mould growth on building materials.

FINDINGS AND RECOMMENDATIONS

The Site building is a two-storey, multi-tenant retail building. The work area consisted of two units on the Second Floor, currently occupied by The Oral Health Clinic and The Oral Health Administration Office. The survey was limited to interior spaces of each units and did not include the mall common areas, roofing system or building exterior.

The Oral Health Clinic consisted of 12’’x12’’ vinyl floor tiles over a concrete and wooden deck. Walls were drywall. Ceilings consisted of date stamped 2’ x 2’ ceiling tile and 1’x1’ ceiling tile. Mechanical ductwork was insulated with fibreglass or was uninsulated. Lighting was provided by both fluorescent and LED light fixtures.

The Oral Health Administration Office consisted of carpet over a concrete deck. Walls were drywall and plastic panelling. Ceilings consisted of date stamped 2’x4’ ceiling tile. Mechanical ductwork was insulated with fibreglass or was uninsulated. Lighting was provided by both fluorescent and LED light fixtures.

Asbestos-Containing Materials

Throughout the assessment, multiple locations were intrusively investigated for the presence of potential hazardous materials. Intrusive investigations were limited to the voids of the drywall walls (lead sheeting).

Intrusive methods included pulling up flooring to investigate for multiple floor layers (i.e. carpets, vinyl floor tiles, etc.), and creating access ports into surfaces.

A total of 30 samples, representing ten distinct homogenous building materials were collected and submitted for analysis. Due to the layering of certain materials (i.e. vinyl floor tile and mastic, etc.) a total of 36 analyses were conducted. Based on the laboratory Certificate of Analyses and Site observations, all the following sampled materials were determined to be non-asbestos:

- Drywall joint compound throughout the Oral Health Clinic (Samples 01A-G);
- Grey speckled 12''x12'' vinyl floor tiles with associated black mastic throughout the Oral Health Clinic (Samples 02A-C, layer 1 and 2);
- Fireproofing from ceiling support beams in the Oral Health Clinic (Samples 03A-C);
- 1'x1'pinhole ceiling tiles in the Storage Room of the Oral Health Clinic (Samples 04A-C);
- Drywall joint compound throughout the Oral Health Administration Office (Samples 05A-E);
- Black interior window putty between windowpane and frame in the Oral Health Administration Office (Sample 06A-C);
- Beige speckled 12''x12'' vinyl floor tiles with associated black mastic in the Kitchen and Washroom of the Oral Health Administration Office (Samples 07A-C, layer 1 and 2); and,
- Yellow carpet mastic found throughout the Oral Health Administration Office (Samples 08A-C).

No asbestos-cement (Transite™) products, bell-and-spigot pipe connections, and suspect pipe insulations were observed.

The laboratory Certificate of Analysis is included in the attachments.

Lead

Two samples of the most prominent paint colours were collected and submitted for analysis. Based on the laboratory Certificate of Analysis, the following three paint samples were found to have an undetectable presence of lead and are considered lead-free:

- Beige paint on the walls throughout the Oral Health Clinic (Sample LP-1); and,
- Beige paint on the walls throughout the Oral Health Administration Office (Sample LP-2).

Lead sheeting was observed behind drywall surfaces in the west and east partition walls in all four Operation Rooms and the western Corridor in the Oral Health Clinic as outlined within the attached Site plan. Additional lead sheeting may be present in other concealed locations. Additionally, lead is suspected within lead aprons, solder in domestic water pipes and in the lead acid batteries of emergency lighting. Bulk-lead materials should be extracted and sent to a recycling facility. If recycling of the lead is not practicable then it must be disposed of in an approved landfill as lead waste.

The potential for worker exposure to lead dust and fumes is dependent on how the materials are to be disturbed. The Ministry of Labour (MOL) Guideline - Lead on Construction Projects (updated April 2011) should be consulted prior to completing a specific task with the objective of evaluating the need for health and safety precautions such as engineering controls, safe work and hygiene practices, personal protective equipment and training.

The laboratory Certificate of Analysis and Sample Location Plan is included in the attachments.

Mercury

Mercury is suspected in small amounts within fluorescent light tubes throughout the Oral Health Clinic and Oral Health Administration Office. Materials suspected to contain mercury that are to be disturbed during future renovation should be re-used or recycled. If recycling is not practicable then dispose of as mercury containing waste.

Silica

Silica is likely present in the concrete, and mortars at the Site. During disturbance, it is recommended that materials suspected to contain silica remain thoroughly wetted with water to control airborne dust levels, thereby preventing worker and public exposure to silica. Any work involving silica should be completed in accordance with the MOL Guideline - Silica on Construction Projects (updated April 2011). Workers in the immediate vicinity or having the potential to become exposed to airborne silica should be provided with the appropriate respiratory protection.

Ozone Depleting Substances

Ozone depleting substances were not observed during the survey, as the rooftop HVAC systems were not within the renovation scope of work. However, ODSs are suspected as refrigerants within the HVAC system. Prior to disposal, if any refrigerant is confirmed to be an ODS (e.g. HCFC-22 or R-22), or if a refrigerant type cannot be determined, then the refrigerants should be drained by a licensed technician before the equipment is decommissioned and up-to-date records should be kept detailing the transfer quantities by refrigerant types and provided to the client for their records. Maintenance, transfer and disposal of refrigerants must be conducted in accordance with the Regulation Respecting Ozone Depleting Substances and other Halocarbons (O. Reg. 463/10).

Polychlorinated Biphenyls

The lighting system was active at the time of the assessment and as such any associated ballasts were not investigated for health and safety reasons. For confirmation purposes prior to disposal, all light ballasts must be checked and compared to the Environment Canada's Report EPS 2/CC/2 (revised) August 1991, Identification of Lamp Ballasts Containing PCBs. Ballasts clearly identified as "Non-PCB" or "PCB-Free" can be recycled or disposed of as regular construction waste. All other ballasts must be identified by the markings, date code, model and serial number to confirm the presence of PCBs and should be removed and disposed of by a Ministry of the Environment, Conservation and Parks (MOECP) licensed waste hauler in accordance with Ontario Regulations 347/90 and 362/90 if required.

Radioactive Components

Dental X-Ray machines were observed in the four Operation Rooms and the western Corridor in the Oral Health Clinic. X-Ray machines may contain harmful materials such as Lead, Cobalt 60, beryllium and other hazardous

waste metals may be contained within the device. If not reused, the X-Ray units should be sent to a licensed hazardous waste facility.

Mould

No suspect mould was observed.

LIMITATIONS

This report is prepared for the sole use of Regional Municipality of Durham. 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 and at the sole risk of the third party. This report must be considered in its entirety. This report is based on data and information collected based solely on Site conditions encountered at the time of the assessment date. Conditions may vary beyond the locations tested, and may vary over time.

The quantities reported herein are based on the observation and subsequent quantification of hazardous materials observed at the Site, at the time of the assessment. Due to the limitations noted above, there may be discrepancies between the quantities reported herein and quantities actually present at the Site. Quantities of designated substances and hazardous materials present in this report are estimates only and should be independently verified. Contractors bidding on, or undertaking any designated substance and/or hazardous materials work at the Site, should rely on their own investigations, as well as their own interpretations of the factual data presented in the report, as to how concealed conditions may affect their work, including but not limited to proposed construction techniques, schedule, safety, and equipment capabilities.

This report is of a summary nature and is not intended to stand alone without reference to the instructions given to Golder by the Client, communications between Golder and the Client, and to any other reports prepared by Golder for the Client relative to the specific site described in the report. In order to properly understand the suggestions, recommendations and opinions expressed in this report, reference must be made to the whole of the report. Golder cannot be responsible for use of portions of the report without reference to the entire report.

CLOSURE

We thank you for the opportunity to provide our services to you on this project. If you have any questions regarding the information presented in this report, or any environmental health and safety questions in general, please do not hesitate to contact the undersigned at (905) 723-2727.

Yours Truly,

GOLDER ASSOCIATES LTD.

Ashley Weissbach Dipl. (Env. Tech)
EHS Technologist

Jason McGonigle (CRSP, CHSC, B.Tech.)
Principal, EHS Group

AW/AHD/RS:kc

Attachments: Representative Photographs
Laboratory Certificate of Analysis – Asbestos
Laboratory Certificate of Analysis – Lead
Sample Locations Plan

https://golderassociates.sharepoint.com/sites/130242/project files/6 deliverables/ph 1000 - 1615 dundas/20147153(1000) 1615 dundas dss report 29sep20.docx

Representative Photographs

Photograph 1: Lead sheeting concealed behind drywall surfaces in the west and east partition walls in all four Operation Rooms and western Corridor located in the Oral Health Clinic.

Photograph 2: X-Ray cameras observed in Operation Rooms and western Corridor, located in the Oral Health Clinic.

Photograph 3: Presumed lead-containing batteries within emergency lighting.

Photograph 4: Suspected mercury within light tubes throughout the Oral Health Administration Office.

Laboratory Certificate of Analysis – Asbestos

emcscientific
INCORPORATED

Laboratory Analysis Report

To:

Ashley Weissbach
Golder Associates Ltd.
100 Scotia Court
Whitby, Ontario
L1N 8Y6

EMC LAB REPORT NUMBER: A61953
Job/Project Name:
Analysis Method: Polarized Light Microscopy – EPA 600
Date Received: Sep 16/20 **Date Analyzed:** Sep 23/20
Analyst: Jon Delos Santos, *Laboratory Supervisor*

Job No: 20147153(1000)
Number of Samples: 30
Date Reported: Sep 23/20

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
01A	A61953-1	Drywall joint compound/throughout dentist	White, joint compound	**ND**			100
01B	A61953-2	Drywall joint compound/throughout dentist	White, joint compound	**ND**			100
01C	A61953-3	Drywall joint compound/throughout dentist	White, joint compound	**ND**			100
01D	A61953-4	Drywall joint compound/throughout dentist	White, joint compound	**ND**			100
01E	A61953-5	Drywall joint compound/throughout dentist	White, joint compound	**ND**			100
01F	A61953-6	Drywall joint compound/throughout dentist	White, joint compound	**ND**			100
01G	A61953-7	Drywall joint compound/throughout dentist	Off white, joint compound	**ND**			100
02A	A61953-8	12"x12" grey vinyl floor tile with black mastic/throughout dentist	2 Phases: a) Grey, vinyl floor tile b) Black, mastic	 **ND** **ND**			 100 100
02B	A61953-9	12"x12" grey vinyl floor tile with black mastic/throughout dentist	2 Phases: a) Grey, vinyl floor tile b) Black, mastic	 **ND** **ND**			 100 100

emcscientific INCORPORATED

Laboratory Analysis Report

EMC LAB REPORT NUMBER: A61953
Client's Job/Project Name/No.: 20147153(1000)
Analyst: Jon Delos Santos, *Laboratory Supervisor*

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
02C	A61953-10	12"x12" grey vinyl floor tile with black mastic/throughout dentist	2 Phases: a) Grey, vinyl floor tile b) Black, mastic	 **ND** **ND**			 100 100
03A	A61953-11	Fireproofing/storage ceiling space, dentist	Grey, fibrous material	**ND**		90	10
03B	A61953-12	Fireproofing/storage ceiling space, dentist	Grey, fibrous material	**ND**		90	10
03C	A61953-13	Fireproofing/storage ceiling space, dentist	Grey, fibrous material	**ND**		90	10
04A	A61953-14	Ceiling tiles/storage, dentist	Grey, ceiling tile	**ND**		75	25
04B	A61953-15	Ceiling tiles/storage, dentist	Grey, ceiling tile	**ND**		75	25
04C	A61953-16	Ceiling tiles/storage, dentist	Grey, ceiling tile	**ND**		75	25
05A	A61953-17	Drywall joint compound/throughout office	Off white, joint compound	**ND**			100
05B	A61953-18	Drywall joint compound/throughout office	Off white, joint compound	**ND**			100
05C	A61953-19	Drywall joint compound/throughout office	Off white, joint compound	**ND**			100
05D	A61953-20	Drywall joint compound/throughout office	Off white, joint compound	**ND**			100
05E	A61953-21	Drywall joint compound/throughout office	Off white, joint compound	**ND**			100
06A	A61953-22	Black window putty/windows office	Black, mastic	**ND**			100

emcscientific INCORPORATED

Laboratory Analysis Report

EMC LAB REPORT NUMBER: A61953
Client's Job/Project Name/No.: 20147153(1000)
Analyst: Jon Delos Santos, *Laboratory Supervisor*

Client's Sample ID	Lab Sample No.	Description/Location	Sample Appearance	SAMPLE COMPONENTS (%)			
				Asbestos Fibres		Non-asbestos Fibres	Non-fibrous Material
06B	A61953-23	Black window putty/windows office	Black, mastic	**ND**			100
06C	A61953-24	Black window putty/windows office	Black, mastic	**ND**			100
07A	A61953-25	12"x12" beige vinyl floor tiles with black mastic/kitchen and washroom of office	2 Phases: a) Beige, vinyl floor tile b) Black, mastic	 **ND** **ND**			 100 100
07B	A61953-26	12"x12" beige vinyl floor tiles with black mastic/kitchen and washroom of office	2 Phases: a) Beige, vinyl floor tile b) Black, mastic	 **ND** **ND**			 100 100
07C	A61953-27	12"x12" beige vinyl floor tiles with black mastic/kitchen and washroom of office	2 Phases: a) Beige, vinyl floor tile b) Black, mastic	 **ND** **ND**			 100 100
08A	A61953-28	Carpet mastic/office	Yellow, mastic	**ND**			100
08B	A61953-29	Carpet mastic/office	Yellow, mastic	**ND**			100
08C	A61953-30	Carpet mastic/office	Yellow, mastic	**ND**			100

Note:
1. Bulk samples are analyzed using Polarized Light Microscopy (PLM) and dispersion staining techniques. The analytical procedures are in accordance with EPA 600/R-93/116 method.
2. The results are only related to the samples analyzed. **ND** = None Detected (no asbestos fibres were observed), **NA** = Not Analyzed (analysis stopped due to a previous positive result).
3. This report may not be reproduced, except in full without the written approval of EMC Scientific Inc. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.
4. The Ontario Regulatory Threshold for asbestos is 0.5%. The limit of quantification (LOQ) is 0.5%.
5. Vinyl floor tiles may contain very fine asbestos fibres which the PLM method cannot detect. TEM analysis may be necessary to confirm the absence of asbestos.

Laboratory Certificate of Analysis – Lead

EMSL Canada Inc.
2756 Slough Street, Mississauga, ON L4T 1G3
Phone/Fax: (289) 997-4602 / (289) 997-4607
http://www.EMSL.com torontolab@emsl.com

EMSL Canada Or	552011605
CustomerID:	55GOLA62
CustomerPO:	20147153(1000)
ProjectID:	

Attn: **Ashley Weissbach**
Golder Associates, Ltd.
100 Scotia Court
Whitby, ON L1N 8Y6

Phone:	(905) 723-2727
Fax:	(905) 723-2182
Received:	9/16/2020 09:47 AM
Collected:	9/10/2020

Project: **20147153(1000)**

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

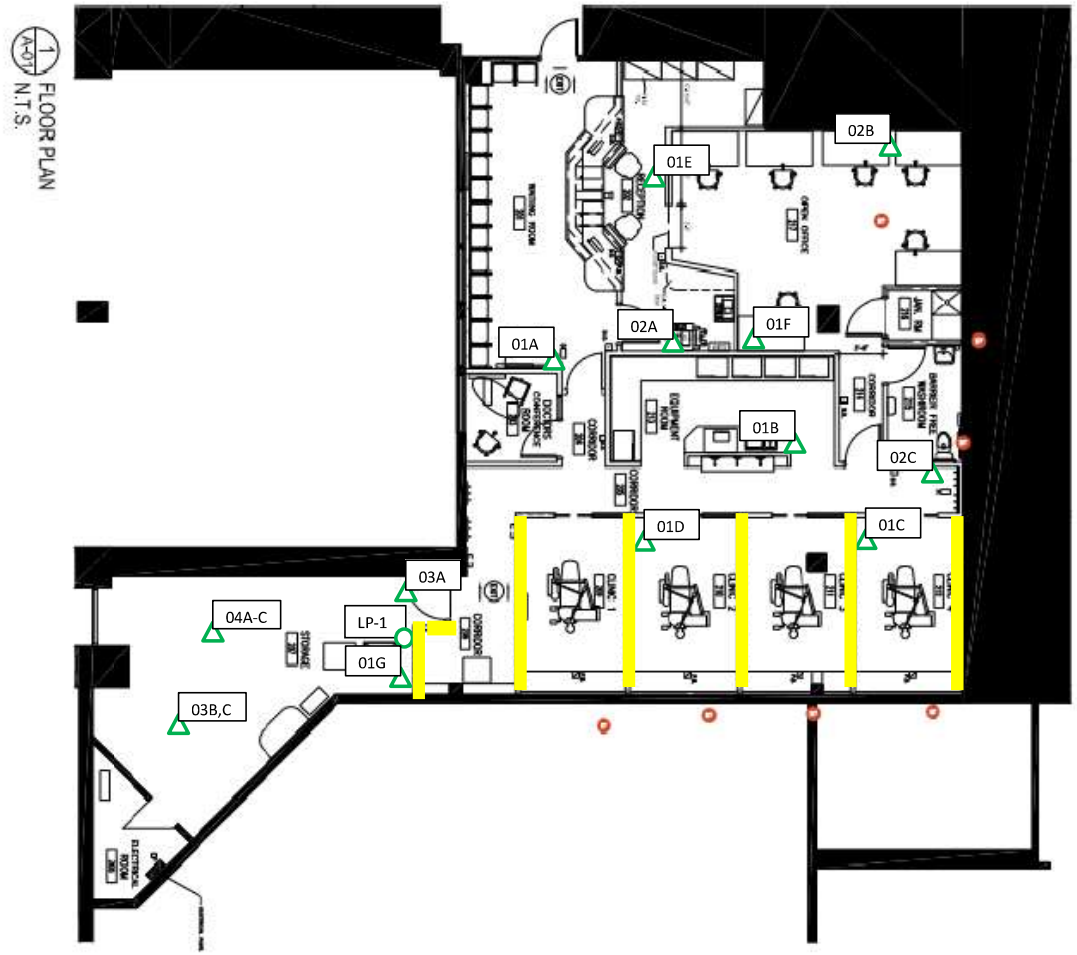
Client SampleDescription	*Collected*	*Analyzed*	*Weight*	*RDL*	*Lead Concentration*
LP-1	9/10/2020	9/18/2020	0.2505 g	0.0080 % wt	<0.0080 % wt
552011605-0001	Site: Beige Paint				
LP-2	9/10/2020	9/18/2020	0.2485 g	0.0080 % wt	<0.0080 % wt
552011605-0002	Site: Beige Paint				

Rowena Fanto, Lead Supervisor
or other approved signatory

Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.
Samples analyzed by EMSL Canada Inc. Mississauga, ON AIHA-LAP, LLC - ELLAP #196142

Initial report from 09/23/2020 08:18:01

Sample Locations Plan



LEGEND

- NEGATIVE ASBESTOS SAMPLE LOCATION
- POSITIVE ASBESTOS SAMPLE LOCATION
- NEGATIVE LEAD PAINT SAMPLE LOCATION
- POSITIVE LEAD PAINT SAMPLE LOCATION
- LEAD SHEETING

SAMPLE LEGEND
ASBESTOS SAMPLE DESCRIPTION

01A to 01G – DRYWALL JOINT COMPOUND
02A to 02C – GREY 12''X12'' VINYL FLOOR TILES
03A to 03C – FIREPROOFING
04A to 04C – 1'X1' PINHOLE CEILING TILES

LEAD SAMPLE DESCRIPTION

LP-1 – BEIGE WALL PAINT

REFERENCE

1. BASE PLAN PROVIDED BY THE REGIONAL MUNICIPALITY OF DURHAM, ENTITLED "EXISTING ORAL HEALTH CLINIC"

The Regional Municipality of Durham

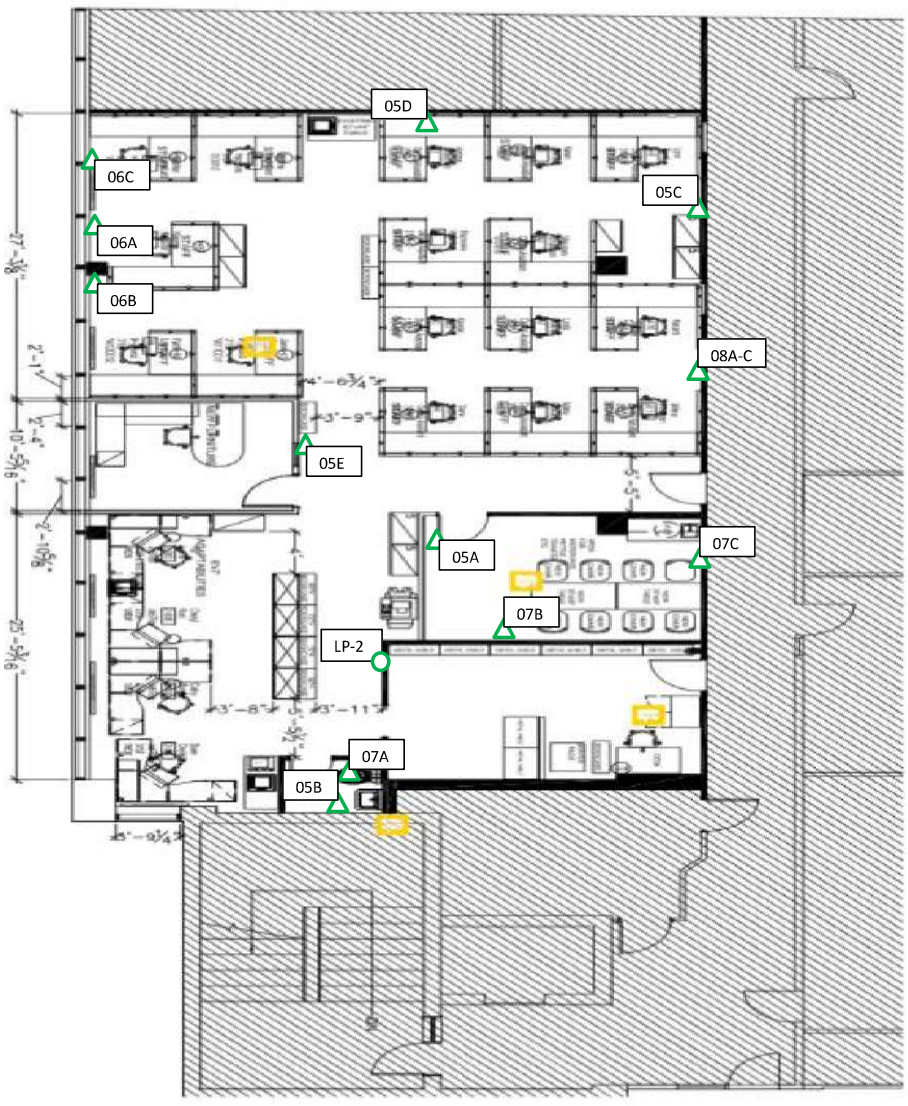
PRE-RENOVATION DESGINATED SUBTANCES SURVEY

CONSULTANT: GOLDER

YYYY-MM-DD	2020-09-15
PREPARED	AW
DESIGNED	AW
REVIEWED	JM
APPROVED	JM

TITLE: **1615 DUNDAS STREET, WHITBY, ONTARIO**

PROJECT NO.	PHASE	REV.	FIGURE
20147153	1000	01	1



LEGEND

- NEGATIVE ASBESTOS SAMPLE LOCATION
- POSITIVE ASBESTOS SAMPLE LOCATION
- NEGATIVE LEAD PAINT SAMPLE LOCATION
- POSITIVE LEAD PAINT SAMPLE LOCATION

SAMPLE LEGEND
ASBESTOS SAMPLE DESCRIPTION

05A to 05E – DRYWALL JOINT COMPOUND
06A to 06C –BLACK INTTERIOR WINDOW PUTTY
07A to 07C – BEIGE SPECKLED 12''X12'' VINYL FLOOR TILES
08A to 08C – YELLOW CARPET MASTIC

LEAD SAMPLE DESCRIPTION

LP-2 – BEIGE WALL PAINT

REFERENCE

1. BASE PLAN PROVIDED BY THE REGIONAL MUNICIPALITY OF DURHAM, ENTITLED "2ND FLOOR HEALTH DEPARTMENT – ORAL HEALTH ADMINISTRATION FLOOR PLAN"

The Regional Municipality of Durham

PRE-RENOVATION DESGINATED SUBTANCES SURVEY

CONSULTANT
GOLDER

YYYY-MM-DD	2020-09-15
PREPARED	AW
DESIGNED	AW
REVIEWED	JM
APPROVED	JM

TITLE
1615 DUNDAS STREET, WHITBY, ONTARIO

PROJECT NO.	PHASE	REV.	FIGURE
20147153	1000	01	**2**

Path: document2 | File Name: DOCUMENT2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
0 25mm