ADDENDUM TO 2016 PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

of

401, 405, 409, 411, 413 & 417 Martha Street, Burlington, ON

For:
2413350 Ontario Inc.







February 7th, 2019
Project: E-19-03-1

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1.0 INTRODUCTION

Hallex Environmental Ltd. was retained by 2413350 Ontario Inc. to conduct a Phase One Environmental Site Assessment (ESA) update and addendum of six (6) adjacent residential properties on Martha Street in Burlington, ON. Municipal addresses for the properties are 401, 405, 409, 411, 413 and 417 Martha Street, and will be herein referred to as the Martha Street properties. This Addendum to Hallex's original 2016 report is being completed at the request of the City of Burlington to reference two recently completed Geotechnical Studies at the site, as completed by Soil-Mat in 2016 and 2017, and to assess the potential for contamination at the site resulting from an adjacent hydro transformer. The material presented in this addendum should be read in conjunction with Hallex Environmental's original Phase One ESA report dated 2016. The site locations are shown on Figure 1. The site layout and adjacent land uses are shown on Figure 2.

1.1 Phase One Property Information

Municipal address:	401, 405, 409, 411, 413 and 417 Martha Street, Burlington, ON, L7R 2P6
Client(s):	2413350 Ontario Inc.
UTM co-ordinates:	17T 597787.13 m E 4797925.62 m N
Elevation:	80 masl
Approx. site area (all six properties):	A total of: 3110 m^2 or 0.77 acres 417 = 426 m^2 409 = 562 m^2 413 = 460 m^2 405 = 588 m^2 411 = 495 m^2 401 = 579 m^2

Hallex Environmental Ltd. prepared this addendum for the account of: 2413350 Ontario Inc. The material in it reflects Hallex Environmental Ltd. best judgement based on the information discovered at the time of preparation, within the Phase One ESA scope of work. The investigative procedures and format of this report generally follow the guidelines established in: Part XV.1 of the Environmental Protection Act, per Ontario Regulations (O. Reg.) 153/04 and 511/09. Any information presented concerning materials at the site is based on information gathered during historical document search and site reconnaissance. There may be materials and/or subsurface soil and/or groundwater conditions on-site, which are not represented by these non-invasive investigations. 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 such third parties. Hallex Environmental Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Declaration: Hallex Environmental Ltd., and its' Officers and Directors, declare no conflicting business or interests with the client or the subject property.

2.0 ENVIRONMENTAL REPORTS

Two (2) geotechnical reports were provided to Hallex Environmental Ltd. for review. The following is a brief overview of Soil-Mat's report and findings:

1. ***Geotechnical Investigation, Proposed Multi-Storey Building for 401-417 Martha Street, Burlington; Soil-Mat, September 2016.***

Soil-Mat conducted a Geotechnical Investigation on the subject site owned by Landform Development Group Inc. in connection with the proposed development. Soil-Mat identified the following geotechnical and environmental findings for the Martha Street Properties:

- Two (2) boreholes were drilled to 7.8 m below ground surface (m bgs) and 15.5 m bgs within the front yards/driveways of 417 and 409 Martha Street.
- Representative soil samples were recovered from the borings at selected depth intervals and transported to Soil-Mat laboratory for visual, tactile, and olfactory classifications.
- A total of four (4) selected samples were submitted to an accredited laboratory for background environmental testing of metals and inorganics.
- The subsurface conditions at the study sites were noted as gravel (0 - 0.2 m), clayey silty fill (0.2 – 1.5 m), clayey silt (1.5 – 2.1 m), and Queenston shale (2.1 – 7.8 m).
- Free groundwater was encountered at the completion of borehole #1 at approximately 2.0 m bgs. A monitoring well was installed in borehole #2 to allow for measurement of the stabilized groundwater level, measured as 5.12 mbgs on September 13, 2015.
- Soil sample results compared to Table 3 for residential land use indicated all samples met applicable criteria for metals and inorganics except Sample SS2 from BH1, which was found to exceed the standard for Sodium Adsorption Ratio (SAR). Soil-Mat noted that the elevated levels of SAR are typically associated with the application of de-icing salt for safety on major roadways. This parameter does not present a hazard to human or animal lie, rather tend to render the soil environmental unsupportive of plant growth and corrosive to buried metal pipes. ***Hallex agrees with this finding.***
- Soil-Mat indicated no evidence of potential impact as observed during field work.
- No groundwater sample was submitted for environmental analysis.

2. ***Supplemental Geotechnical Investigation (Slope Stability Assessment), Proposed Multi-Storey Building for 401-417 Martha Street, Burlington; Soil-Mat, March 2017.***

Soil-Mat conducted a Supplemental Geotechnical Investigation on the subject site owned by Landform Development Group Inc. This report was initiated as the original investigation was limited due to the presence of existing occupied dwellings. As such, additional investigation work

was conducted in March 2017. Soil-Mat identified the following geotechnical and environmental findings for the Martha Street Properties:

- Two (2) additional boreholes (BH101, BH102) were drilled to 3.5 m below ground surface (m bgs) and 1.7 m bgs within the backyards between Rambo Creek and the dwellings at 413 and 405 Martha Street, respectively.
- Representative soil samples were recovered from the borings at selected depth intervals and transported to Soil-Mat laboratory for visual, tactile, and olfactory classifications.
- Two (2) representative slope profiles were measured for slope stability testing.
- Both boreholes were recorded as 'dry'.
- No monitoring wells were installed as part of this investigation.
- No soil or groundwater samples were submitted for environmental testing.

3.0 HYDRO TRANSFORMER

The western adjacent site is currently in use as a municipal trail with the entrance to the trail running along the eastern property boundary to 417 Martha Street. A hydro transformer is located on this land approximately 10 m from the 417 Martha Street property boundary. Information about a transformer being either "wet or dry" and containing PCB's is restricted to the owner of the property outright. Since confirmation of the presence of these materials within the transformer was not available, Hallex examined the transformer itself in addition to the concrete pad that the transformer was sitting on. No cracking, damage or staining was observed that would indicate a potential release of PCB's or oil into the surrounding soil (see photos below). Additionally, there is a pronounced slope running northwards from Martha Street down towards Rambo Creek and any potential spill from the transformer would create little to low impact at the study site(s).



Trail entrance, transformer pad



Transformer

4.0 SITE RECONNAISSANCE

Hallex Environmental gained access to the interior of three (3) of the residential dwellings during site reconnaissance on February 5th, 2019. Updated findings are summarized below and discussed further where necessary. There are currently five (5) residential dwellings located at the study site with the sixth site sitting vacant. Two (2) of the residences are cottage style dwellings, while the other three (3) are post-war style single-family dwellings. Each property has a small asphalt, gravel, or bricked driveway and small front lawns/gardens with large backyards abutting Rambo Creek.

401, 405, 409, 411, 413 & 417 Martha Street, Burlington, ON	
Focus Items	**Location / Description**
Storage tanks (AST/UST)	409 Martha Street: possible AST fill pipes were noted in the basement. 417 Martha Street: an AST was observed during the 2016 site reconnaissance. This dwelling has since been demolished.
Wells	None observed.
Sewage disposal	Municipal hook up along Martha Street.
Pits and lagoons	None observed.
Stained materials	None observed.
Stressed vegetation	
Fill	None observed.
Wastewater	Municipal hook up along Martha Street.
Watercourses, ditches, standing water	Rambo Creek was located north of the properties (just beyond their backyards).
Equipment	None observed.
Debris	Some miscellaneous household debris throughout the properties, and a stack of felled trees at 417 Martha Street.
Chemical storage	None observed.

Four (4) current tenants were available during the site reconnaissance that took place on February 5th, 2019. The tenants of Martha Street properties were not aware of any specific environmental concerns at the study sites.

5.0 CONCLUSIONS

Hallex Environmental Ltd. was retained by 2413350 Ontario Inc. to conduct a Phase One Environmental Site Assessment (ESA) update and addendum of six (6) adjacent residential properties on Martha Street in Burlington, ON. This Addendum to Hallex's original 2016 report is being completed at the request of the City of Burlington to reference two recently completed Geotechnical Studies at the site, as completed by Soil-Mat in 2016 and 2017, and to assess the potential for contamination at the site resulting from an adjacent hydro transformer. The material presented in this addendum should be read in conjunction with Hallex Environmental's original Phase One ESA report dated 2016.

Potentially contaminating activities, and contaminants or materials of potential concern, if revealed, were identified as 'Areas of Potential Environmental Concern' (APEC), and individually evaluated whether they were triggers for additional investigation via a Phase 2 ESA.

FINDINGS

The following updated findings were documented for the study sites:

401, 405, 411 & 413 Martha Street, Burlington, ON:

1. No 'Areas of Potential Environmental Concern' (APEC) observed that would indicate any potential contaminant source, nor trigger a recommendation for further assessment.
2. Current adjacent land uses did not exhibit visible exterior items that would constitute APECs to the subject site regarding potential for impact to soil, or groundwater of the subject property.
3. Historical site uses, and historical adjacent site uses, as identified from aerial photographs, fire insurance plans, ERIS EcoLog and the Vernon's City Directory, did not indicate land uses that would commonly generate significant APECs.

409 & 417 Martha Street, Burlington, ON:

1. One (1) Potentially Contaminating Activity was documented in the basement of the residential dwelling- a 950 L Above Ground Storage Tank (AST). Although noted as a PCA, Hallex does not consider the AST to represent an Area of Potential Environmental Concern at the municipal address or to the study area for the following reasons: it was recently upgraded, professional contractors decommissioned and removed the previous tank prior to installation of the new tank, its current condition has been well maintained and does not appear to have any damage and the AST is sitting on a concrete slab floor. Therefore, in the QP's opinion its current state does not trigger a recommendation for further assessment. ***2019 update: this house has been demolished. Site reconnaissance***

did not reveal any evidence of soil staining or odours within the area of the previous structure.

2. One (1) Potentially Contaminating Activity was documented at the 409 Martha Street property. Possible fill pipes were noted along the exterior and interior basement walls of the residence indicating historically an AST may have been utilized for heating oil purposes. The residence had undergone renovations and at the time of site reconnaissance was serviced by forced air gas. ***No visible evidence of staining was noted in the basement or outside of the structure.***
3. Current adjacent land uses did not exhibit visible exterior items that would constitute APECs to the subject site regarding potential for impact to soil, or groundwater of the subject property.
4. Historical site uses, and historical adjacent site uses, as identified from aerial photographs, fire insurance plans, ERIS EcoLog and the Vernon's City Directory, did not indicate land uses that would commonly generate significant APECs.

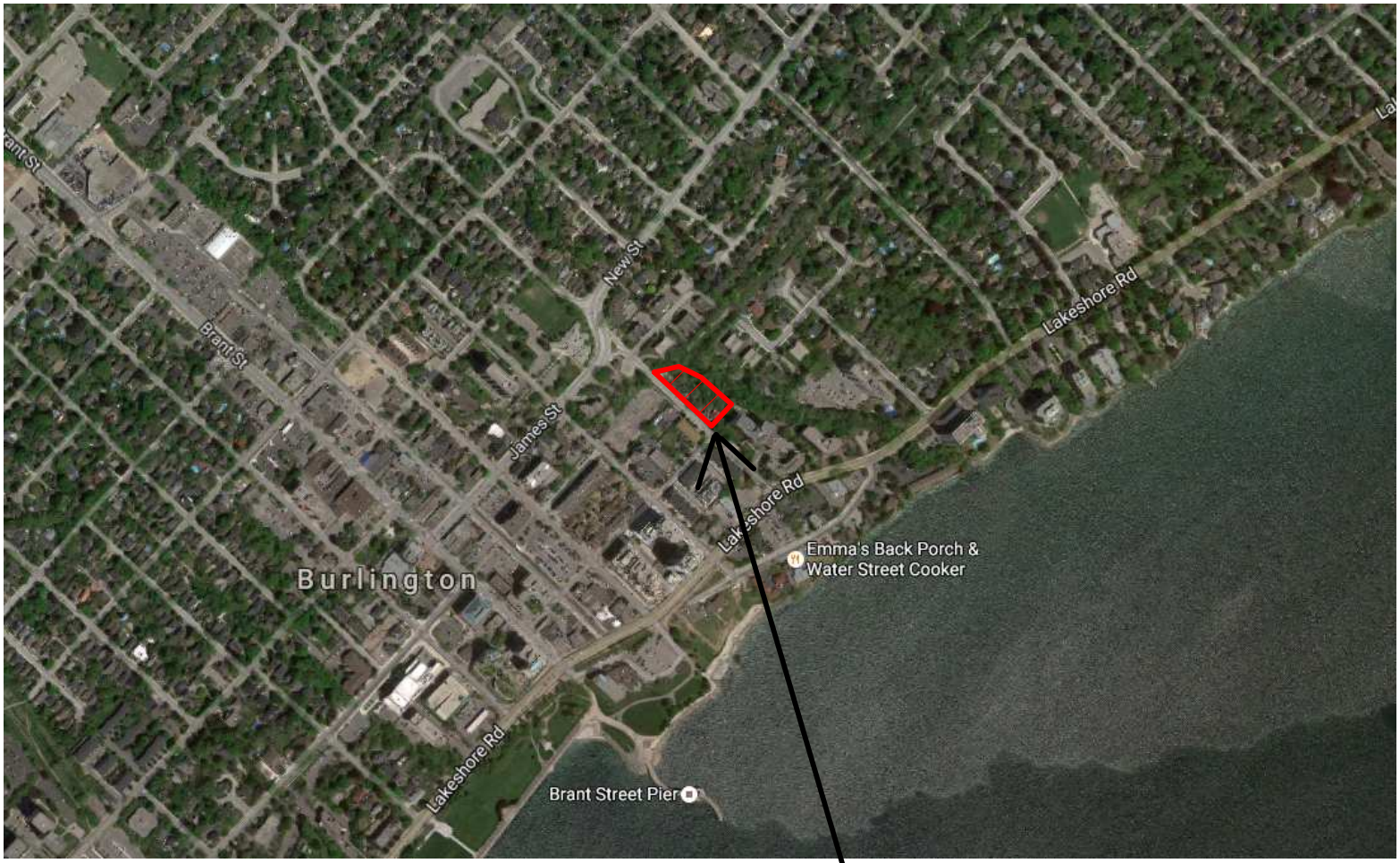
Designated Substances and Hazardous Materials Survey – all remaining structures

During the 2016 investigation Hallex was informed that municipal addresses 401, 405 and 409 Martha Street had recently undergone major interior renovations and were considered fully updated. Addresses 411 & 413 Martha Street remained as the smaller cottage style dwellings never having been updated. All residences were considered to have multiple sources of potential asbestos containing materials and designated substances ie. mastic, aerocell insulation, stucco, vinyl floor tiles, drywall joint compound, ceiling tile, cement parge, roofing shingles, paint and mould. Sampling of suspected materials should be completed prior to planned demolition to classify proper disposal requirements.

CONCLUSIONS

As of February 7th, 2019, no further environmental site assessment work is considered necessary at the Martha Street properties and the site conditions justify continued residential land use within the definition of O. Reg. 153/04 and 511/09.

Although no environmental work is being recommended at this time, Hallex advises a soil and/or groundwater assessment ***may be*** required if evidence of petroleum staining or odour, resulting from historic on-site use of ASTs, is uncovered during planned demolition and excavation.



HALLEX ENVIRONMENTAL LTD.

Legend

Study Site

Client

2413350 Ontario Inc

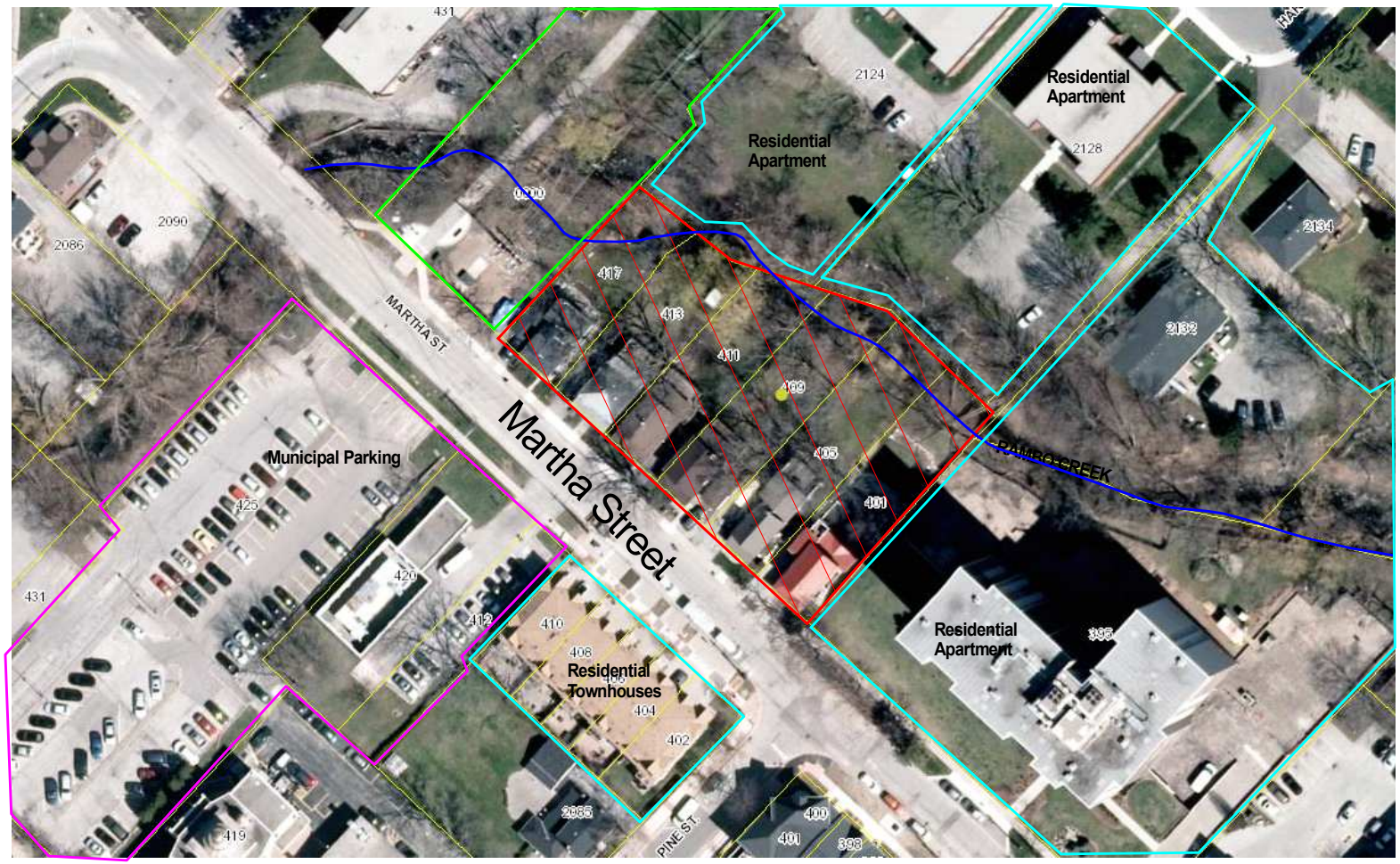
Project

Phase 1 ESA Martha Street properties, Burlington, ON

Figure Name

Site Location

Project E-19-03-1	Figure 1
Date February 2019	
Drafted: J. Anema Reviewed:JG	



0 m 50 m

Legend

- Phase One Property
- Residential Land Use
- Commercial Land Use (City Parking)
- City Greenspace
- Rambo Creek

Client

2413350 Ontario Inc

Project

Phase 1 ESA Martha Street properties, Burlington, ON

Figure Name

Site Layout & Adjacent Lots

Project E-19-03-1
Date February 2019
Drafted: J.Anema
Reviewed:JG

Figure 2