



Hamilton

COMMITTEE OF ADJUSTMENT

City Hall, 5th floor, 71 Main Street West, Hamilton, ON L8P 4Y5
Telephone (905) 546-2424, ext. 4221, 3935 Fax (905) 546-4202
E-mail: cofa@hamilton.ca

NOTICE OF PUBLIC HEARING

Application for Consent/Land Severance

APPLICATION NUMBER: HM/B-18:89
SUBJECT PROPERTY: 455/457 Bay St. N., Hamilton

You are receiving this notice because you are either:

- Assessed owner of a property located within 60 metres of the subject property
 - Applicant/agent on file, or
 - Person likely to be interested in this application
-

APPLICANT(S): IBI Group (T. Tucker) on behalf of the owner Neil Pirie

PURPOSE OF APPLICATION: To permit the conveyance of a parcel of land for residential purposes and to retain a parcel of land for residential purposes and the establishment of an easement.

Severed lands:

9.75m[±] x 28.36m[±] and an area of 276.7m^{2±}

Retained lands:

10.37m[±] x 30.4m[±] and an area of 312.8m^{2±}

This application will be heard in conjunction with minor variance application HM/A/18:243

The Committee of Adjustment will hear this application on:

DATE: Thursday, March 18th , 2021
TIME: 2:15 p.m.
PLACE: Via video link or call in (see attached sheet for details)

To be streamed at
www.hamilton.ca/committeeofadjustment
for viewing purposes only

PUBLIC INPUT

Written: If you would like to submit written comments to the Committee of Adjustment you may do so via email or hardcopy. Please see attached page for complete instructions, including deadlines for submitting to be seen by the Committee.

Orally: If you would like to speak to this item at the hearing you may do so via video link or by calling in. Please see attached page for complete instructions, including deadlines for registering to participate.

MORE INFORMATION

For more information on this matter, including access to drawings illustrating this request:

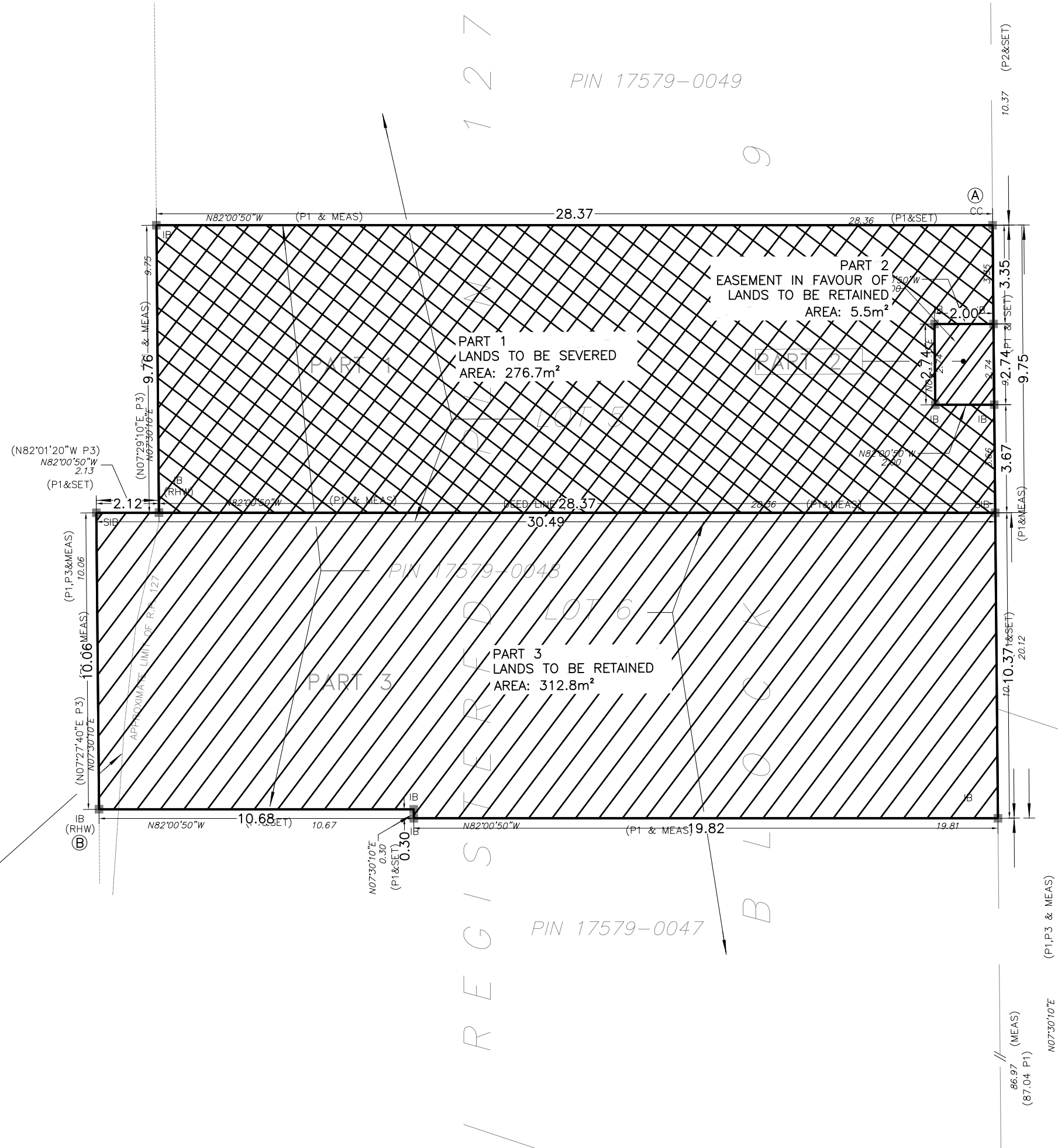
- Visit www.hamilton.ca/committeeofadjustment
- Call 905-546-CITY (2489) or 905-546-2424 extension 4221, 4130, or 3935
- Email Committee of Adjustment staff at cofa@hamilton.ca

DATED: March 2nd, 2021

Jamila Sheffield,
Secretary-Treasurer
Committee of Adjustment




Information respecting this application is being collected under the authority of the Planning Act, R.S.O., 1990, c. P. 13. All comments and opinions submitted to the City of Hamilton on this matter, including the name, address, and contact information of persons submitting comments and/or opinions, will become part of the public record and will be made available to the Applicant and the general public.

PART 10, PLAN 62R-14695
 (LANDS FORMERLY COVERED BY WATER IN FRONT OF LOTS 1 TO 10 BLOCK
 PIN 17579-0072



LEGEND

CURRENT LOT INFORMATION
 AREA: 589.62m²
 FRONTAGE: 20.12m

-  LANDS TO BE SEVERED
 AREA: 276.7m² FRONTAGE: 9.75m
-  LANDS TO BE RETAINED
 AREA: 312.8m² FRONTAGE: 10.37m
-  EASEMENT IN FAVOUR OF LANDS
 TO BE RETAINED AREA: 5.5m²

IBI GROUP
 200 East Wing-360 James Street North
 Hamilton ON L8L 1H5 Canada
 tel 905 546 1010 fax 905 546 1011
 ibigroup.com

SCALE 1:150
 DATE 2018-05-09
 DRAWN BY T. TUCKER

CITY OF
HAMILTON

PIRIE RESIDENCE
 455 BAY ST N

**SEVERANCE
 SKETCH**

FILE No. **115306** FIGURE No. **FIGURE 1**

18-126159

Paired 2



Hamilton

Planning and Economic Development Department
Planning Division

Committee of Adjustment
City Hall
5th floor, 71 Main Street West
Hamilton, Ontario L8P 4Y5

Phone (905) 546-2424, ext. 4221
Fax (905) 546-4202

APPLICATION FOR CONSENT TO SEVER LAND
UNDER SECTION 53 OF THE PLANNING ACT

Office Use Only

Date Application Received:	Date Application Deemed Complete: HM18-18:89	Submission No.:	File No.:
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1 APPLICANT INFORMATION

1.1, 1.2	NAME	ADDRESS	PHONE/FAX
Registered Owners(s)	Neil Pirie c/o Ian & Linda Pirie		
Applicant(s)*			
Agent or Solicitor	IBI Group c/o Tracy Tucker		

* Owner's authorisation required if the applicant is not the owner.

1.3 All correspondence should be sent to Owner Applicant Agent/Solicitor

2 LOCATION OF SUBJECT LAND Complete the applicable lines

2.1 Area Municipality	Lot	Concession	Former Township
Hamilton	5 & 6		
Registered Plan N°.	Lot(s)	Reference Plan N°.	Part(s)
127			
Municipal Address			Assessment Roll N°.
455/457 Bay St N			

2.2 Are there any easements or restrictive covenants affecting the subject land?

Yes No

If YES, describe the easement or covenant and its effect:

3 PURPOSE OF THE APPLICATION

3.1 Type and purpose of proposed transaction: (check appropriate box)

a) Urban Area Transfer (do not complete Section 10):

- creation of a new lot
- addition to a lot
- an easement

- Other: a charge
 a lease
 a correction of title

b) Rural Area / Rural Settlement Area Transfer (Section 10 must be completed):

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <input type="checkbox"/> creation of a new lot | Other: <input type="checkbox"/> a charge |
| <input type="checkbox"/> creation of a new non-farm parcel
(i.e. a lot containing a surplus farm dwelling
resulting from a farm consolidation) | <input type="checkbox"/> a lease |
| <input type="checkbox"/> addition to a lot | <input type="checkbox"/> a correction of title |
| | <input type="checkbox"/> an easement |

3.2 Name of person(s), if known, to whom land or interest in land is to be transferred, leased or charged:

3.3 If a lot addition, identify the lands to which the parcel will be added:

4 DESCRIPTION OF SUBJECT LAND AND SERVICING INFORMATION

4.1 Description of land intended to be **Severed**:

Frontage (m) 9.75m	Depth (m) 28.36m	Area (m ² or ha) 276.7m ²
-----------------------	---------------------	----------------------------------------------------

Existing Use of Property to be severed:

- | | | |
|-----------------------------------------------------------------|-----------------------------------------------|-------------------------------------|
| <input checked="" type="checkbox"/> Residential | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial |
| <input type="checkbox"/> Agriculture (includes a farm dwelling) | <input type="checkbox"/> Agricultural-Related | <input type="checkbox"/> Vacant |
| <input type="checkbox"/> Other (specify) _____ | | |

Proposed Use of Property to be severed:

- | | | |
|-----------------------------------------------------------------|-----------------------------------------------|-------------------------------------|
| <input checked="" type="checkbox"/> Residential | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial |
| <input type="checkbox"/> Agriculture (includes a farm dwelling) | <input type="checkbox"/> Agricultural-Related | <input type="checkbox"/> Vacant |
| <input type="checkbox"/> Other (specify) _____ | | |

Building(s) or Structure(s):

Existing: Garage

Proposed: Single Detached dwelling

Type of access: (check appropriate box)

- | | |
|-------------------------------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> provincial highway | <input type="checkbox"/> right of way |
| <input type="checkbox"/> municipal road, seasonally maintained | <input type="checkbox"/> other public road |
| <input checked="" type="checkbox"/> municipal road, maintained all year | |

Type of water supply proposed: (check appropriate box)

- | | |
|------------------------------------------------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> publicly owned and operated piped water system | <input type="checkbox"/> lake or other water body |
| <input type="checkbox"/> privately owned and operated individual well | <input type="checkbox"/> other means (specify) _____ |

Type of sewage disposal proposed: (check appropriate box)

- | |
|----------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> publicly owned and operated sanitary sewage system |
| <input type="checkbox"/> privately owned and operated individual septic system |
| <input type="checkbox"/> other means (specify) _____ |

4.2 Description of land intended to be **Retained**:

Frontage (m) 10.37m	Depth (m) 30.4m	Area (m ² or ha) 312.8m ²
------------------------	--------------------	----------------------------------------------------

Existing Use of Property to be retained:

- | | | |
|-----------------------------------------------------------------|-----------------------------------------------|-------------------------------------|
| <input checked="" type="checkbox"/> Residential | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial |
| <input type="checkbox"/> Agriculture (includes a farm dwelling) | <input type="checkbox"/> Agricultural-Related | <input type="checkbox"/> Vacant |
| <input type="checkbox"/> Other (specify) _____ | | |

Proposed Use of Property to be retained:

- Residential
 Industrial
 Commercial
 Agriculture (includes a farm dwelling)
 Agricultural-Related
 Vacant
 Other (specify) _____

Building(s) or Structure(s):

Existing: Single detached dwelling

Proposed: Single detached dwelling

Type of access: (check appropriate box)

- provincial highway
 right of way
 municipal road, seasonally maintained
 other public road
 municipal road, maintained all year

Type of water supply proposed: (check appropriate box)

- publicly owned and operated piped water system
 lake or other water body
 privately owned and operated individual well
 other means (specify) _____

Type of sewage disposal proposed: (check appropriate box)

- publicly owned and operated sanitary sewage system
 privately owned and operated individual septic system
 other means (specify) _____

4.3 Other Services: (check if the service is available)

- electricity
 telephone
 school bussing
 garbage collection

5 CURRENT LAND USE

5.1 What is the existing official plan designation of the subject land?

Rural Hamilton Official Plan designation (if applicable): _____

Urban Hamilton Official Plan designation (if applicable): _____

Please provide an explanation of how the application conforms with a City of Hamilton Official Plan.

The lands are subject to non -decision area No. 113 in the UHOP, there fore the former City of Hamilton Official Plan and Setting Sails Secondary Plan are the current policies in effect on the lands. Within the Secondary Plan, the subject lands are designated Low Density Residential, which permits single family dwellings, such as the ones proposed for the subject lands.

5.2 What is the existing zoning of the subject land? City of Hamilton Zoning by-law No. 6593 "D" District
If the subject land is covered by a Minister's zoning order, what is the Ontario Regulation Number? _____

5.3 Are any of the following uses or features on the subject land or within 500 metres of the subject land, unless otherwise specified. Please check the appropriate boxes, if any apply.

Use or Feature	On the Subject Land	Within 500 Metres of Subject Land, unless otherwise specified (indicate approximate distance)
An agricultural operation, including livestock facility or stockyard	<input type="checkbox"/>	

A land fill	<input type="checkbox"/>	
A sewage treatment plant or waste stabilization plant	<input type="checkbox"/>	
A provincially significant wetland	<input type="checkbox"/>	
A provincially significant wetland within 120 metres	<input type="checkbox"/>	
A flood plain	<input checked="" type="checkbox"/>	±40m
An industrial or commercial use, and specify the use(s)	<input type="checkbox"/>	
An active railway line	<input type="checkbox"/>	
A municipal or federal airport	<input type="checkbox"/>	

6 PREVIOUS USE OF PROPERTY

- Residential Industrial Commercial
 Agriculture Vacant Other (specify)

- 6.1 If Industrial or Commercial, specify use _____
- 6.2 Has the grading of the subject land been changed by adding earth or other material, i.e., has filling occurred?
 Yes No Unknown
- 6.3 Has a gas station been located on the subject land or adjacent lands at any time?
 Yes No Unknown
- 6.4 Has there been petroleum or other fuel stored on the subject land or adjacent lands?
 Yes No Unknown
- 6.5 Are there or have there ever been underground storage tanks or buried waste on the subject land or adjacent lands?
 Yes No Unknown
- 6.6 Have the lands or adjacent lands ever been used as an agricultural operation where cyanide products may have been used as pesticides and/or biosolids was applied to the lands?
 Yes No Unknown
- 6.7 Have the lands or adjacent lands ever been used as a weapons firing range?
 Yes No Unknown
- 6.8 Is the nearest boundary line of the application within 500 metres (1,640 feet) of the fill area of an operational/non-operational landfill or dump?
 Yes No Unknown
- 6.9 If there are existing or previously existing buildings, are there any building materials remaining on site which are potentially hazardous to public health (e.g., asbestos, PCB's)?
 Yes No Unknown
- 6.10 Is there reason to believe the subject land may have been contaminated by former uses on the site or adjacent sites?
 Yes No Unknown
- 6.11 What information did you use to determine the answers to 6.1 to 6.10 above?
The subject and neighbouring lands have historically been used for residential purposes, the lands to the west include the Macassa Bay Marina, and Hamilton Harbour
- 6.12 If previous use of property is industrial or commercial or if YES to any of 6.2 to 6.10, a previous use inventory showing all former uses of the subject land, or if appropriate, the land adjacent to the subject land, is needed.
Is the previous use inventory attached?
 Yes No

7 PROVINCIAL POLICY

- 7.1 a) Is this application consistent with the Policy Statements issued under subsection of the *Planning Act*? (Provide explanation)
- Yes No

The proposed severance is within the built up area and within the Urban Boundary for the City of Hamilton. Therefore consents for the purposed of new lots are permitted

- b) Is this application consistent with the Provincial Policy Statement (PPS)?
 Yes No (Provide explanation)

The proposed severance is within the built up area and within the Urban Boundary for the City of Hamilton. Therefore consents for the purposed of new lots are permitted

- c) Does this application conform to the Growth Plan for the Greater Golden Horseshoe?
 Yes No (Provide explanation)

The proposed severance is within the built up area and within the Urban Boundary for the City of Hamilton. Therefore consents for the purposed of new lots are permitted

- d) Are the subject lands within an area of land designated under any provincial plan or plans? (If YES, provide explanation on whether the application conforms or does not conflict with the provincial plan or plans.)
 Yes No

- e) Are the subject lands subject to the Niagara Escarpment Plan?
 Yes No

If yes, is the proposal in conformity with the Niagara Escarpment Plan?
 Yes No
(Provide Explanation)

- f) Are the subject lands subject to the Parkway Belt West Plan?
 Yes No

If yes, is the proposal in conformity with the Parkway Belt West Plan?
 Yes No (Provide Explanation)

- g) Are the subject lands subject to the Greenbelt Plan?
 Yes No

If yes, does this application conform with the Greenbelt Plan?
 Yes No (Provide Explanation)

8 HISTORY OF THE SUBJECT LAND

8.1 Has the subject land ever been the subject of an application for approval of a plan of subdivision or a consent under sections 51 or 53 of the *Planning Act*?
 Yes No Unknown

If YES, and known, indicate the appropriate application file number and the decision made on the application.

8.2 If this application is a re-submission of a previous consent application, describe how it has been changed from the original application.

8.3 Has any land been severed or subdivided from the parcel originally acquired by the owner of the subject land? Yes No

If YES, and if known, provide for each parcel severed, the date of transfer, the name of the transferee and the land use.

8.4 How long has the applicant owned the subject land?

8.5 Does the applicant own any other land in the City? Yes No
If YES, describe the lands in "11 - Other Information" or attach a separate page.

9 OTHER APPLICATIONS

9.1 Is the subject land currently the subject of a proposed official plan amendment that has been submitted for approval? Yes No Unknown

If YES, and if known, specify file number and status of the application.

9.2 Is the subject land the subject of any other application for a Minister's zoning order, zoning by-law amendment, minor variance, consent or approval of a plan of subdivision?
 Yes No Unknown

If YES, and if known, specify file number and status of the application(s).

File number _____ Status Minor Variance being submitted concurrently

10 RURAL APPLICATIONS

10.1 Rural Hamilton Official Plan Designation(s)

- Agricultural Rural Specialty Crop
- Mineral Aggregate Resource Extraction Open Space Utilities
- Rural Settlement Area (specify) _____

Settlement Area

Designation

If proposal is for the creation of a non-farm parcel resulting from a farm consolidation, indicate the existing land use designation of the abutting or non-abutting farm operation.

10.2 **Type of Application** (select type and complete appropriate sections)

- Agricultural Severance or Lot Addition
- Agricultural Related Severance or Lot Addition
- Rural Resource-based Commercial Severance or Lot Addition
- Rural Institutional Severance or Lot Addition

(Complete Section 10.3)

- Rural Settlement Area Severance or Lot Addition
- Surplus Farm Dwelling Severance from an Abutting Farm Consolidation (Complete Section 10.4)
- Surplus Farm Dwelling Severance from a Non-Abutting Farm Consolidation (Complete Section 10.5)

10.3 Description of Lands

a) Lands to be Severed:

Frontage (m): (from Section 4.1)	Area (m ² or ha): (from in Section 4.1)
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Existing Land Use: _____ Proposed Land Use: _____

b) Lands to be Retained:

Frontage (m): (from Section 4.2)	Area (m ² or ha): (from Section 4.2)
----------------------------------	-------------------------------------------------

Existing Land Use: _____ Proposed Land Use: _____

10.4 Description of Lands (Abutting Farm Consolidation)

a) Location of abutting farm:

 (Street) (Municipality) (Postal Code)

b) Description abutting farm:

Frontage (m):	Area (m ² or ha):
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Existing Land Use(s): _____ Proposed Land Use(s): _____

c) Description of consolidated farm (excluding lands intended to be severed for the surplus dwelling):

Frontage (m):	Area (m ² or ha):
---------------	------------------------------

Existing Land Use: _____ Proposed Land Use: _____

d) Description of surplus dwelling lands proposed to be severed:

Frontage (m): (from Section 4.1)	Area (m ² or ha): (from Section 4.1)
----------------------------------	-------------------------------------------------

Front yard set back: _____

e) Surplus farm dwelling date of construction:

- Prior to December 16, 2004
- After December 16, 2004

f) Condition of surplus farm dwelling:

- Habitable
- Non-Habitable

g) Description of farm from which the surplus dwelling is intended to be severed (retained parcel):

Frontage (m): (from Section 4.2)	Area (m ² or ha): (from Section 4.2)
----------------------------------	-------------------------------------------------

Existing Land Use: _____ Proposed Land Use: _____

10.5 Description of Lands (Non-Abutting Farm Consolidation)

a) Location of non-abutting farm

 (Street) (Municipality) (Postal Code)

b) Description of non-abutting farm

Frontage (m):	Area (m2 or ha):
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Existing Land Use(s): _____ Proposed Land Use(s): _____

c) Description of surplus dwelling lands intended to be severed:

Frontage (m): (from Section 4.1)	Area (m2 or ha): (from Section 4.1)
----------------------------------	-------------------------------------

Front yard set back: _____

d) Surplus farm dwelling date of construction:

- Prior to December 16, 2004 After December 16, 2004

e) Condition of surplus farm dwelling:

- Habitable Non-Habitable

f) Description of farm from which the surplus dwelling is intended to be severed (retained parcel):

Frontage (m): (from Section 4.2)	Area (m2 or ha): (from Section 4.2)
----------------------------------	-------------------------------------

Existing Land Use: _____ Proposed Land Use: _____

11 OTHER INFORMATION

Is there any other information that you think may be useful to the Committee of Adjustment or other agencies in reviewing this application? If so, explain below or attach on a separate page.

An easement for parking is proposed on the lands to be severed in favour of the lands to be retained. The easement is 5.5m² in size with a width of 2.75m and a depth of 2.0m (Part 2 on the severance sketch)

12 SKETCH (Use the attached Sketch Sheet as a guide)

12.1 The application shall be accompanied by a sketch showing the following in metric units:

- (a) the boundaries and dimensions of any land abutting the subject land that is owned by the owner of the subject land;
- (b) the approximate distance between the subject land and the nearest township lot line or landmark such as a bridge or railway crossing;
- (c) the boundaries and dimensions of the subject land, the part that is intended to be severed and the part that is intended to be retained;
- (d) the location of all land previously severed from the parcel originally acquired by the current owner of the subject land;
- (e) the approximate location of all natural and artificial features (for example, buildings, barns, railways, roads, watercourses, drainage ditches, banks of rivers or streams, wetlands, wooded areas, wells and septic tanks) that,
 - i) are located on the subject land and on land that is adjacent to it, and
 - ii) in the applicant's opinion, may affect the application;
- (f) the current uses of land that is adjacent to the subject land (for example, residential, agricultural or commercial);
- (g) the location, width and name of any roads within or abutting the subject land, indicating whether it is an unopened road allowance, a public travelled road, a private



IBI GROUP
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February 16, 2021

Chair and Members of Committee of Adjustment
c/o Ms. Jamila Sheffield
Secretary-Treasurer, Committee of Adjustment
City of Hamilton
71 Main Street West, 5th Floor
Hamilton, Ontario
L8P 4Y5

Dear Ms. Sheffield:

**RESUBMISSION OF APPLICATIONS FOR CONSENT AND MINOR VARIANCE
(HM/B-18:89 & HM/A-18:243)
455 & 457 BAY STREET NORTH, HAMILTON**

On behalf of the owner, we are pleased to resubmit the enclosed applications for Consent and Minor Variance for the lands located at 455/457 Bay Street North, Hamilton. In July 2018, applications for Consent and Minor Variance were submitted to the City of Hamilton by IBI Group on behalf of the owners. The applications were heard at the October 18, 2018 Committee of Adjustment meeting and were tabled pending the completion of a Slope Stability Study and a Cultural Heritage Impact Study. The Consent Application is to sever the existing lot into two residential parcels, while the Minor Variance Application is to permit several minor variances to accommodate the construction of a single detached dwelling on the lands to be severed and to build an addition to the rear of the existing dwelling on the lands to be retained.

Complete Application Submission Materials

In support of the application, please find enclosed the following:

- A copy the completed Consent Application form, as submitted in 2018;
- A copy of the Consent sketch;
- A copy of the completed Minor Variance Application form, as submitted in 2018;
- A copy of the Minor Variance sketch;
- A copy of the proposed elevation drawings;
- A copy of the Cultural Heritage Impact Assessment;
- A copy of the Geotechnical Investigation & Slope Stability Report;
- One (1) cheque in the amount of \$190.00 made payable to the City of Hamilton, which represents the Consent Application recirculation fee; and,
- One (1) cheque in the amount of \$275.00 made payable to the City of Hamilton, which represents the Minor Variance Application recirculation fee.

Chair and Members of Committee of Adjustment
c/o Ms. Jamila Sheffield – February 16, 2021

Site Location and Context

The subject lands are located in North-West Hamilton in the North End Neighbourhood, situated on the west side of Bay Street, at the intersection of Bay Street North and MacAulay Street West. The lands are legally described as Part of Lot 5 & 6, Block 39 Registered Plan 127 and part of lands formerly covered by water in front of Part of Lot 6 Block 39 Registered Plan 127, being in the City of Hamilton, municipally, the lands are known as 455/457 Bay Street North. The subject lands are currently developed with a one storey residential dwelling with a ground floor area of approximately 73m² and a one storey shed with an area of 6m².

The front façade of the existing dwelling at 455 Bay Street North is designated under the Ontario Heritage Act. The proposed changes to this dwelling are only at the rear of the dwelling, and will maintain the heritage features of the front façade. Further to this, a Cultural Heritage Impact Assessment was prepared in support of the proposed development.

The subject lands are within the built-up area as defined in the Growth Plan for the Greater Golden Horseshoe and are within the Hamilton Conservation Authority regulated area. The subject lands are located within non-decision area No. 113 in the Urban Hamilton Official Plan; therefore, the former City of Hamilton Official Plan and the Setting Sail Secondary Plan are the current policies in effect on the lands. Within the Setting Sail Secondary Plan, the subject lands are designated as Low Density Residential. Lastly, within the Former City of Hamilton Zoning By-Law No. 6593, the subject lands are zoned as a 'D' District, Urban Protected Residential – One and Two-Family Dwellings.

Supporting Studies and Reports

At the October 18, 2018 Committee of Adjustment meeting it was noted that a Geotechnical Investigation with a Slope Stability Study and a Cultural Heritage Impact Assessment would be required before a decision could be made on the applications. As such both studies were undertaken.

Geotechnical & Slope Stability Investigation

A Geotechnical and Slope Stability Investigation was undertaken by Landtek Limited Consulting Engineers. The Slope Stability Investigation found that the slope in its current condition is deemed to be stable. The study provides considerations for development of the lands at 457 Bay Street North, based on the existing conditions, including the requirement for shoring during excavation, appropriate levels of backfill compaction between any earth retaining structures and the native soils, and the installation of appropriate drainage systems to ensure that moisture conditions of the native soils are no increased and surface water run off leading down-slope is prevented. It also recommends a construction management plan be implemented to define controls required during construction to ensure slope stability.

Cultural Heritage Impact Assessment

A Cultural Heritage Impact Assessment has been prepared by ASI, to review the impacts of the proposed development on the Heritage structures located at 455 Bay Street North (subject lands), 449 & 459 Bay Street North and the Gartshore-Thomson Building located to the north-west of the subject lands in Pier 4 Park. The report recommends the use of masonry (brick) and/or wood materials opposed to steel or concrete to ensure compatibility with the existing dwelling at 455 Bay Street North, the implementation of a Conservation Plan for the building located at 455 Bay Street North, confirmation of slope stability, a structural assessment of the building at 455 Bay Street Norths, and Staging for construction.

Chair and Members of Committee of Adjustment
c/o Ms. Jamila Sheffield – February 16, 2021

Proposed Development

The enclosed consent application will result in the creation of two residential lots, and an easement in favour of the retained lands, which will be used for parking. As a result of the consent, there are a number of existing and proposed zoning deficiencies relating the proposed lot area and frontage, and yard setbacks to the existing dwelling at 455 Bay Street North and the proposed dwelling at 457 Bay Street North.

Applicable Planning Policy and Legislation

Planning Act

Section 50 of the Planning Act (the “Act”) regulates the subdivision of land. Subsection 50 (3) (f) requires that a consent must be granted for a person to convey land. This severance application is being made under Section 53, complying with the consent approval process and meets the required criteria for land division as set out in subsection 53 (12) of the Act, which refers to matters under subsection 51 (24).

The Powers of the Committee of Adjustment, with respect to minor variances are provided by subsection 45 (1) of the Planning Act, which states that the Committee can authorize variances that are desirable, minor in nature, and meet the general intent and purpose of the Official Plan and Zoning By-law. It is our opinion that there are no undue adverse impacts as a result of the proposed development. It will not introduce any adverse impacts to adjacent properties nor the neighbourhood, which consists of existing single dwellings. Moreover, the size, setbacks, and character of the proposed dwellings and lots are in keeping with the character of the neighbourhood.

Provincial Policy Statement

Planning decisions made by the Committee of Adjustment must be consistent with the Provincial Policy Statement (“PPS”). The proposed severance results in modest intensification within the built-up area of the City of Hamilton (“the City”), in the form of one additional building lot. The proposed lot will contribute to the City’s intensification target and the supply of housing to meet forecasted needs. The PPS provides direction that new growth should be directed to the built-up area and lands within the urban boundary, where municipal infrastructure and services are available. The subject lands are located within the built-up area, and a full complement of municipal infrastructure and services.

Growth Plan for the Greater Golden Horseshoe (2020)

The Growth Plan for the Greater Golden Horseshoe 2020 (“Growth Plan”), provides municipalities with policy direction to direct growth within the Greater Golden Horseshoe. One of the main goals of the Growth Plan is direct growth to the urban areas of municipalities, where municipal infrastructure and services are available. The proposed development is located within the urban boundary and built-up area of the City of Hamilton. The proposed severance conforms to the policies of the Growth Plan.

Former City of Hamilton Official Plan & Setting Sail Secondary Plan

As previously noted, the subject lands are located within the Urban Hamilton Official Plan Non-Decision Area 113. As such the Former City of Hamilton Official Plan and the Setting Sail Secondary Plan for the West Harbour are still in effect on the lands. Within the

Chair and Members of Committee of Adjustment
c/o Ms. Jamila Sheffield – February 16, 2021

Setting Sail Secondary Plan, the subject lands are designated for Low Density Residential, which allows for single detached dwellings, ranging from 25 to 60 units per gross hectare. The proposed severance results in a minor increase in density, which is approximately 34 units per hectare. The proposed lot dimensions and setbacks are generally consistent with the other Low Density Residential properties in the neighbourhood. It is our opinion that the proposed severance conforms to the applicable local planning instruments.

Former City of Hamilton Zoning By-law No. 6593

Currently, the site is zoned “D” Urban Protected Residential – One and Two Family Dwellings”, which permits single family dwellings. The development will require several variances to recognize the proposed lot area and frontage and the existing and proposed building setbacks. The following sections will outline the proposed variances and provide an explanation of how they meet the 4 tests set out in the Planning Act.

Proposed Land Division

The existing lot has a frontage of 20.12m along Bay Street North, lot depth of 28.36 m, and a lot area of 589.62 m². The proposed consent will result in the creation of two residential lots, and an easement in favour of the retained lands for parking. The retained lands have an area of approximately 312 m² and a frontage of 10.3metres, while the lands to be severed have an area of approximately 276 m², with a frontage of 9.75 metres. The easement in favour of the lands to be retained has an area of 5.5 m². The easement is for the purpose of providing for a parking space in conjunction with a municipal boulevard parking agreement. These proposed lots are consistent and compatible with the existing lots along Bay Street North and the North End Neighbourhood. The proposed lots are appropriate for the development of single detached dwellings. Therefore, it is our opinion that the proposed consent complies with the Planning Act, is consistent with the Provincial Policy Statement (2014), conforms to the Growth Plan for the Greater Golden Horseshoe 2017, and conforms to and implements the Former City of Hamilton Official Plan, and the Setting Sail Secondary Plan.

Proposed Minor Variances

In context of establishing the proposed residential dwelling on the lands to be severed and the addition to the existing dwelling, we have identified the following required minor variances for each intended residential parcel based on our own review and interpretation of Former City of Hamilton Zoning By-law No. 6593.

Planning Act Section 45 (1) Compliance

Section 45(1) of the Planning Act permits the Committee of Adjustment to grant Minor Variances from the Zoning By-law provided they are meet what is known as the four (4) tests. The four tests are:

1. Is the variance minor in nature?
2. Is the variance desirable and appropriate?
3. Does the variance maintain the general intent and purpose of the Official Plan? and,
4. Does the variance maintain the general intent and purpose of the Zoning By-law?

Chair and Members of Committee of Adjustment
c/o Ms. Jamila Sheffield – February 16, 2021

The following will provided an analysis of the proposed variances against the four tests.

Variance 1 & 2: Minimum Lot Frontage & Lot Area

The current zoning requires a minimum frontage of 12.0 metres and a minimum lot area of 360 square metres for single detached dwellings. As such, both parcels will require variances for both of these items.

The retained lands (“455 Bay Street”) require variances to permit a minimum lot area of 312m² and a minimum lot frontage of 10.3 metres. The severed lands (“457 Bay Street”) require a variance to permit a minimum lot area of 267m² and a minimum lot frontage of 9.5 metres.

1. Are the Variances Minor in Nature?

The determination of minor is not a matter of the quantum of the variance but rather a consideration of the overall impact of the proposed variance. As such, it is our opinion that the requested minor variances to lot area and frontage are minor in nature as the variances do not impact the overall character of the neighbourhood. The proposed frontages and lot areas are consistent with the existing lots in the neighbourhood, which is made up of an eclectic mix of lot areas and frontages, or varying degrees. Therefore, the proposed development will not have adverse negative impacts on the area.

2. Are the Variance desirable and appropriate?

The variances are desirable and appropriate because they are compatible with the existing neighbourhood. The existing residential lands within the vicinity of the subject lands, have a mix and range of lot frontages and lot areas, which is eclectic and ranges from approximately 7.0m to more than 20.0m. Lot areas are similar eclectic in that they range from 160m² to 900m². As such the proposed reduction to the lot area and frontage to facilitate the proposed consent will maintain the rhythm and feel of this area of the North End and is therefore desirable and appropriate.

3. Do the variances maintain the general intent of the Official Plan?

The subject lands are designated as Low Density Residential which permits single detached residential dwellings. The proposed lots will be developed with single detached residential dwellings, and a resulting density of approximately 34 units per hectare which conforms with the Official Plan.

4. Do the variances maintain the intent and purpose of the Zoning By-law?

The proposed variances to the minimum lot area and frontage meet the intent and purpose of the Zoning By-law. The lands are located in an older area of the city, where there is a very wide range of lot areas and frontages. The purpose of the minimum lot area and frontage is to ensure that there is adequate space to develop the lands, without over development. In our opinion, both proposed lots can appropriately accommodate single family detached dwellings and the site design undertaken by the owner’s architect is contextually sensitive and introduces built form that is appropriately scaled for the lots. The lands are similar in area and frontage to other residential lots located nearby.

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Variance 3 & 4: Minimum Front Yard & Front Yard Landscaping

The current zoning requires a minimum front yard depth of at least 6.0 metres and a minimum 50% of the gross front yard to be landscaped, excluding concrete and asphalt.

The existing building on the retained lands requires a variance to the minimum front yard setback. The existing dwelling has an existing front yard setback of 0.9 metres. The proposed development on the severed lands requires a variance to allow a minimum front yard depth of 1.2 metres, calculated from the 2nd storey overhang and a minimum 25% of the gross front yard to be landscaped.

1. Are the Variances Minor in Nature?

It is our opinion that the requested minor variances to minimum front yard depth and percentage of front yard landscaping are minor in nature, as they do not impact the overall character of the neighbourhood, and rather, represent a general theme in the neighbourhood consisting of reduced front yard setbacks. The proposed front yard setbacks are consistent with the existing front yard setbacks along Bay Street North. The reduction in percentage of landscaped area on the lands to be severed is consistent with the existing conditions along Bay Street North. The reduction is required to accommodate parking spaces for both units within the front yard. Historically this condition was not accommodated in the neighbourhood and parking was provided on-street.

2. Are the Variance desirable and appropriate?

The requested variances are desirable and appropriate for the neighbourhood as the majority of the dwellings along Bay Street North are close to the street line, and have reduced front yard setbacks. The minimum front yard landscape area extrapolates from the front yard setback and is a condition that can be seen in the neighbourhood, where residents have obtained boulevard parking spaces to accommodate on-site parking rather than on-street parking.

3. Do the variances maintain the general intent of Official Plan?

The variances maintain the intent of the Official Plan and Secondary Plan. As the neighbourhood is designated Low Density Residential, the proposed variance are to accommodate single detached dwellings, which is a permitted use.

4. Do the variances maintain the general intent of the Zoning By-law?

The variances meet the general intent of the former Zoning by-law as the proposed reduction to the front yard setback allows the proposed building to be consistent with the adjacent properties.

Variance 5 & 6 Minimum Rear Yard and Side Yard

The zoning by-law requires a minimum side yard width of at least 1.2 metres and a minimum rear yard depth of 7.5 metres.

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The existing building on the retained lands requires a variance to allow a minimum side yard width of 0.8 metres on the south side yard and 0.5 metres on the north side yard. The proposed building on the severed lands requires a variance to allow a minimum side yard width of 0.9 metres on the south side and to allow a minimum rear yard depth of 3.8 metres.

1. Are the Variances Minor in Nature?

The proposed reduction to the side yard is minor in nature, as it does not adversely impact the surrounding properties, which have similar built form relationships to yards. The reduction to the rear yard setback does not have a negative impact to the neighbourhood, as there is no abutting rear property, and therefore there are no overlook or privacy concerns. The topography for the subject lands is not conducive to providing private amenity space within the rear yard, and as such it is proposed that the private amenity space will be provided upon patios and decks on the upper levels of the dwelling.

2. Are the Variance desirable and appropriate?

The variances to minimum side yard are desirable and appropriate for the neighbourhood as they are consistent with the arrangement of built form on surrounding properties, where the dwellings are close together. The variance to the rear yard is desirable in order to address the significant change in grade from the front to the rear of the property. Additionally, there are no privacy and overlook concerns created as a result of the reduction in the rear yard setback, as private amenity area will be provided on upper-storey patios and decks.

3. Do the variances maintain the general intent of Official Plan?

The variances will permit the proposed development of single detached dwellings on the subject lands, which is consistent with the Low Density designation of the Setting Sail Secondary Plan, which permits single detached dwellings.

4. Do the variances maintain the general intent of the Zoning By-law?

The general intent of the zoning bylaw as it applies to side yard setback is to ensure there is appropriate physical separation between buildings. As noted above, the historical precedent of structures close together is an established element of the built form in this area. The general intent of the zoning bylaw as it applies to rear yard setback is to ensure appropriate rear yard amenity space and appropriate physical separation between dwellings. As noted previously, the significant grade change through the property effectively eliminates the ability to provide traditional grade-related useable rear yard amenity space on the lot except through patios and decks. In terms of separation, also as noted below the subject lands do not have an abutting rear yard residential neighbor such that issues of privacy and overlook do not apply.

Variance 7: Encroachments on Yards

As per the current zoning, the canopy, cornice or eave and gutter may project onto the front yard, by 1.5 metres but it cannot be closer than 1.5 metres to a street line. The current zoning also requires that buildings with an open stairway have a required side

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yard 1/3 of the width or 1.0 metres, whichever is lesser. Another zoning requirement is that a screened one storey porch at the first storey level can encroach onto the front or rear yard by 3.0 metres, but must be at least 1.5 m from the front lot line.

The existing building on the retained lands requires a variance to allow a minimum encroachment of the canopy, eaves, and gutter to be within 0.4 metres of the street line. Another requested variance for the existing building is to allow the open stairway to encroach onto the side yard by 0.89 metres to the lot line, and to be no closer than 0.0m to the lot line. The proposed building on the severed lands requires a variance to allow a covered porch to encroach no closer than of 0.3 metres to the street line.

1. Are the Variances Minor in Nature?

The existing dwelling on the lands to be retained is situated 0.9m from the lot line, and as such the eaves encroach 0.5m further to a minimum of 0.4m from the front lot line. The proposed encroachment on the lands to be severed will permit a front porch to be located no closer than 0.3m to the front lot line. Both of these encroachments are minor in nature and are as a result of the dwellings being located close to the front lot line. The proposed side yard encroachment on both parcels permits the residents to have access to the rear yard of the dwelling from Bay Street North. Due to the existing topography of the lands, access at the side of the dwelling is required to be in the form of an open air stairway, rather than a pathway, which would be permitted as part of the landscaping. Therefore it is our opinion that the encroachment of an open air stairway for the maximum width of the side yard is minor in nature.

2. Are the Variance desirable and appropriate?

The front yard encroachment variance on the lands to be retained is to recognize an existing condition due to the location of the existing dwelling on the subject lands. The front yard encroachment on the lands to be severed maintains the character of historically close front yard relationships found along Bay Street North. The side yard encroachment for an open air stairway is as a result of the existing topography requiring stairs to access the rear portion of the subject lands. Both variances are desirable and appropriate for the neighbourhood, and do not result in any adverse impact on neighbouring lands.

3. Do the variances maintain the general intent of Official Plan?

The consent and variances will permit the creation of single detached residential lots, which are a permitted use within the Low Density Residential designation of the Setting Sail Secondary Plan, and therefore the intent of the Official Plan is being maintained.

4. Do the variances maintain the general intent of Zoning By-law?

In our opinion, the proposed reduction to the side yard and front yard meets the intent of the by-law, as it will be in conformity with the public realm in terms of streetscape and neighbouring properties. Given that the intent of the zoning by-law pertaining to side yard encroachments is to provide appropriate space for access and maintenance, and given the site design includes provision for access and maintenance. It is our opinion that the variances maintain the intent of the zoning by-law.

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Variance 8: Minimum Required Parking

The current zoning bylaw requires a minimum of 2 parking spaces per unit. The proposed development requires a variance for both the retained and severed lands to allow for no on-site parking. Rather, one parking space will be provided for each dwelling through a boulevard parking agreement with the City, as both spaces are proposed to be located partially within the front yard of the lands to be severed through an easement in favour of the lands to be retained.

1. Are the Variances Minor in Nature?

The variances are minor in nature as effectively one parking spot is still being provided for each of the dwellings, and on-street parking is available along Bay Street North. Additionally, parking in this area of the City is generally provided through on-street parking or by way of boulevard parking agreements,

2. Are the Variance desirable and appropriate?

The variances are desirable and appropriate for the neighbourhood as many of the properties in the surrounding neighbourhood do not have on-site parking. The proposed parking reduction is typical and therefore is desirable and appropriate. Through the combination of providing one parking space per unit, by virtue of a boulevard parking agreement (and associated easement), and the general availability of on-street parking in the neighbourhood, suitable vehicle parking will be available to these lots.

3. Do the variances maintain the general intent of Official Plan?

The variances maintain the intent of the Setting Sail Secondary Plan as the low density use is permitted. While Setting Sails states that garages should generally be provided at the rear of the site, this is not practically possible due to the significant grade change at the rear of the property and the lack of a rear yard laneway.

4. Do the variances maintain the general intent of Zoning By-law?

The variance maintains the intent of the Zoning By-law, as parking is being provided for the dwellings. However, because the parking is provided within the boulevard, it cannot be considered as on-site parking, thus the technical variance is required. Additionally, due to the historical development of lands in the neighbourhood, parking was not provided at the time of development, and therefore has historically been provided off-site through boulevard parking agreements and on-street parking.

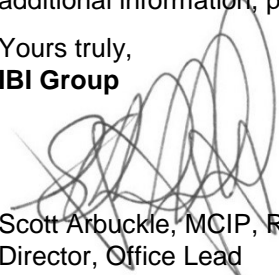
Conclusion and Recommendation

Based on our review of the existing context, the proposed plans, and applicable planning policy and legislation, it is our opinion that the proposed applications should be approved. The proposed development complies with, conforms to and implements the requirements of the Planning Act, PPS, Growth Plan, the Former City of Hamilton Official Plan & Setting Sail Secondary Plan, and each of the variances, individually and collectively, meet the four tests as required under the Planning Act.


Chair and Members of Committee of Adjustment
c/o Ms. Jamila Sheffield – February 16, 2021

We trust that the enclosed is in order. However, should you have any questions or require additional information, please do not hesitate to contact the undersigned.

Yours truly,
IBI Group



Scott Arbuckle, MCIP, RPP
Director, Office Lead



Tracy Tucker, BAA, CPT
Project Coordinator

Cc: Mr. Neil Pirie, Owner
Mr. Philip Toms, Toms + McNally Design

CULTURAL HERITAGE IMPACT ASSESSMENT

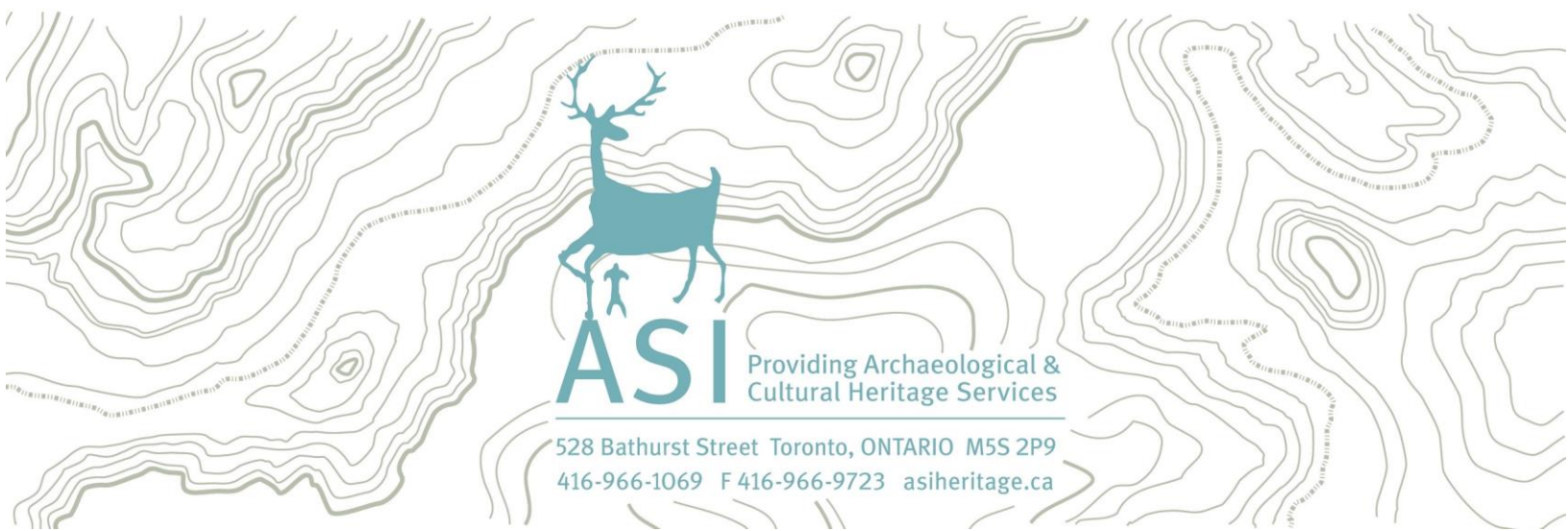
**455 & 457 Bay Street North
CITY OF HAMILTON, ONTARIO**

Prepared for:

IBI Group
Suite 200, East Wing-360 James Street North
Hamilton ON L8L 1H5

ASI File: 19CH-072

July 2020



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Cultural Heritage Services

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CULTURAL HERITAGE IMPACT ASSESSMENT

455 & 457 Bay Street North CITY OF HAMILTON, ONTARIO

EXECUTIVE SUMMARY

ASI was contracted by IBI Group to prepare a Cultural Heritage Impact Assessment for the subject properties at 455 & 457 Bay Street North in the City of Hamilton, Ontario. The property at 455 Bay Street North consists of a one-storey brick residence constructed in 1900, which is designated under Part IV of the *Ontario Heritage Act* (City of Hamilton By-law No. 86-18), while the property at 457 Bay Street North is currently an empty lot. The proposed work involves the construction of a rear addition behind the residence at 455 Bay Street North and the construction of a new residence on the property at 457 Bay Street North. The properties are adjacent to a number of heritage buildings including 449 Bay Street North and 459 Bay Street North, which are listed on the City's inventory, and the Gartshore-Thomson Building in Pier 4 Park, which is designated under Part IV of the *OHA* (City of Hamilton By-law No. 94-094).

The proposed alterations to the property at 455 Bay Street North consist of a three-storey rear addition, which due to the slope behind the residence, will be constructed entirely below the existing roofline. Meanwhile, at 457 Bay Street North, a two-storey residence will be constructed. This report has evaluated both proposals and has determined that both are consistent with best practices in heritage conservation and are consistent with the City of Hamilton's heritage policies.

The following recommendations have been made for the proposed alterations to the property at 455 Bay Street North and proposed construction of the new residence at 457 Bay Street North:

1. The proposed alterations to the 455 Bay Street North and the proposed new residential building at 457 Bay Street North are designed in a contemporary style with modern finishes. Though the proposed exterior finishes and materials strive for compatibility with adjacent cultural heritage resources, an emphasis should be placed on the use of masonry (brick) and/or wood as opposed to materials such as steel and concrete (for example). It is recommended that the existing drawings include exterior finishes so that the proposal can be fully understood by City of Hamilton staff to ensure that the building is substantively distinct, yet compatible with adjacent cultural heritage resources.
2. City of Hamilton Staff should consider the requirement of a Conservation Plan for the building at 455 Bay Street North. The Conservation Plan should detail how the proposed addition will relate to the existing fabric of the building and should identify areas where maintenance and/or repair is required to ensure the long-term conservation of the building as per the requirements set by the City of Hamilton. The Conservation Plan should also document the rear elevation of the residence and materials removed from the rear of the residence should be considered for salvage.
3. An engineer should provide the City of Hamilton with confirmation of the slope's stability and outline the proposed strategy to ensure that soil disturbances do not affect the building at 455 Bay Street North and adjacent heritage properties. The engineer should provide a report to the City of Hamilton prior to starting construction.



4. A structural assessment should be conducted on the residence at 455 Bay Street north to ensure that the removal of building fabric from the rear of the house does not have a negative impact on the structural integrity of the building.
5. Staging during construction should be carefully planned to ensure that no negative impacts occur to the buildings at 455 Bay Street North and 459 Bay Street North. All efforts should be made to eliminate potential impacts on these buildings during construction. These efforts should be outlined and provided to City of Hamilton Heritage Planning staff in advance of construction activities.



PROJECT PERSONNEL

<i>Senior Project Manager:</i>	Rebecca Sciarra, MA, CAHP <i>Partner and Director, Cultural Heritage Division</i>
<i>Cultural Heritage Specialist:</i>	James Neilson, MES (Planning) <i>Cultural Heritage Specialist Project Manager Cultural Heritage Division</i>
<i>Project Coordinator</i>	Ella Boswell, BSc (Hon) <i>Archaeologist Junior Administrative Assistant - Laboratory and Fieldwork Services, Operations Division</i>
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<i>Fieldwork</i>	James Neilson
<i>Graphics Preparation:</i>	Andrew Clish <i>Archaeologist, Geomatics Specialist</i>
	James Neilson
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	Rebecca Sciarra



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1.0 INTRODUCTION

ASI was contracted by IBI Group to prepare a Cultural Heritage Impact Assessment for the subject properties at 455 & 457 Bay Street North in the City of Hamilton, Ontario. The property at 455 Bay Street North consists of a one-storey brick residence constructed in 1900, which is designated under Part IV of the *Ontario Heritage Act* (OHA) (City of Hamilton By-law No. 86-18), while the property at 457 Bay Street North is currently an empty lot. The proposed work involves the construction of a rear addition behind the residence at 455 Bay Street North and the construction of a new residence on the property at 457 Bay Street North. The properties are adjacent to a number of heritage buildings including 449 Bay Street North and 459 Bay Street North, which are listed on the City's inventory, and the Gartshore-Thomson Building in Pier 4 Park, which is designated under Part IV of the *OHA* (City of Hamilton By-law No. 94-094).

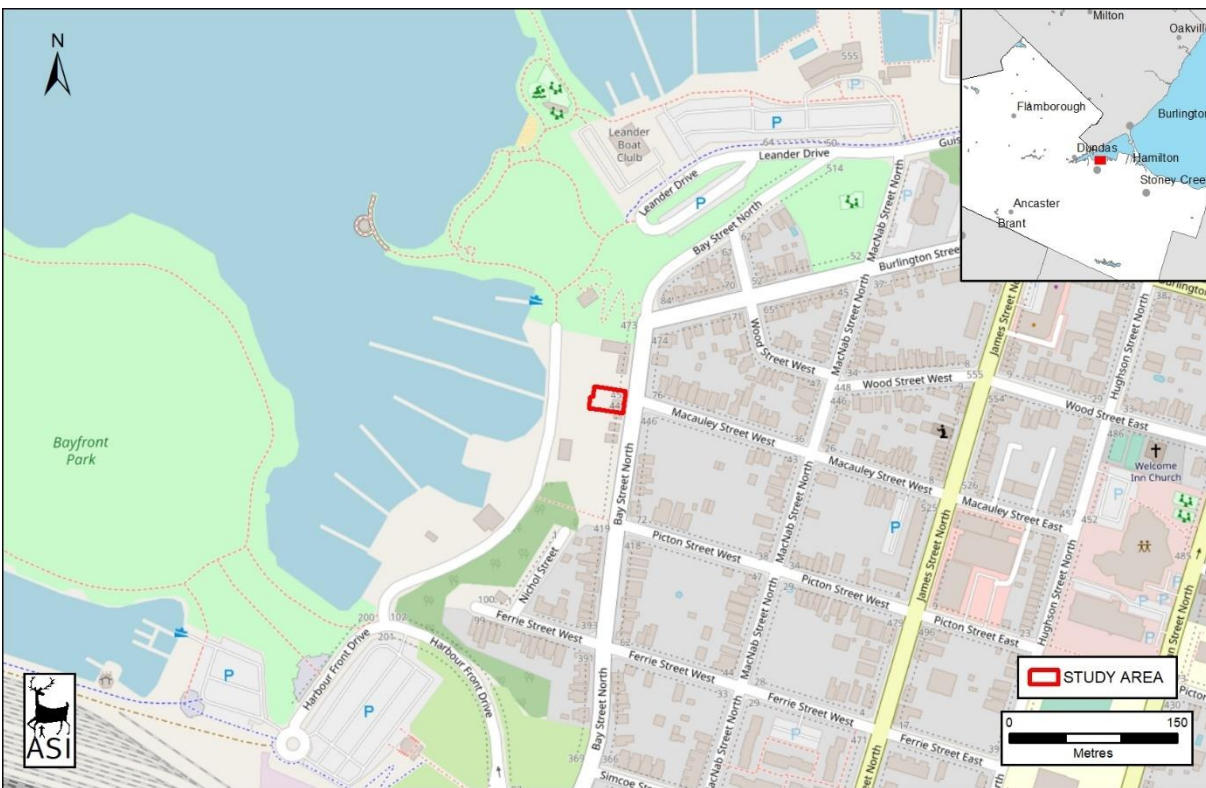


Figure 1: Study Area (Open Streets Map, Annotated by ASI 2019)

The analysis, research, and site visit were conducted by James Neilson, Cultural Heritage Specialist, and under the senior project direction of Rebecca Sciarra, Partner and Director, Cultural Heritage Division, ASI. This CHIA follows the Ministry of Tourism, Culture and Sports' *Ontario Heritage Toolkit* (2006), the *Standards and Guidelines for the Conservation of Historic Places in Canada* (2010), and the City of Hamilton's *Guidelines for Cultural Heritage Impact Assessments* (2018).

This document will provide:

- A description of the properties and their condition;

- A history of both properties;
- A description of the proposed work;
- An assessment of impacts of the proposed work on identified heritage attributes and on adjacent heritage resources;
- An assessment of appropriate mitigation measures to ensure that any impacts on the heritage resources are minimized; and
- A list of recommendations for the City of Hamilton’s review and approval with regards to this project.

1.1 Location and Study Area Description

The properties at 455 & 457 Bay Street North are located on the west side of Bay Street North, near the intersection of Bay Street North and Macaulay Street West. The properties are located on a ridge that backs on to the Macassa Bay Yacht Club, which is located within Burlington Bay (Figure 2). The property at 455 Bay Street North consists of a one-storey brick residential building constructed in 1900, while the property at 457 Bay Street north is currently a vacant lot (Figure 3). The property is located within the primarily residential North End West neighbourhood consisting of low-rise one-to-two storey residential buildings of various styles. The aforementioned Macassa Bay Yacht Club, Pier 4 Park and Bayfront Park are located to the west and northwest. In addition, the properties are adjacent to 449 Bay Street North and 459 Bay Street North, which are listed on the City’s inventory, and the Gartshore-Thomson Building in Pier 4 Park, which is designated under Part IV of the *OHA* (City of Hamilton By-law No. 94-094).

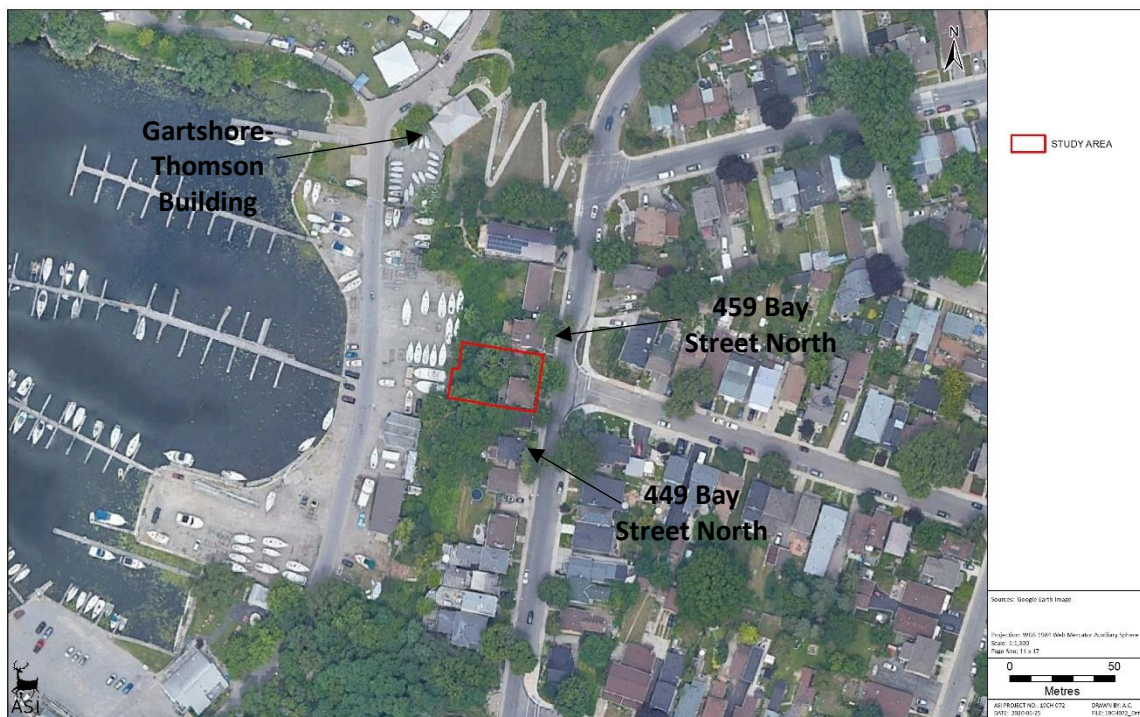


Figure 2: Aerial photograph of 455 & 457 Bay Street North (Google 2020)



Figure 3: 455 & 457 Bay Street North

1.2 Present Owner Contact

The properties at 455 & 457 Bay Street North in Hamilton, Ontario are currently owned by Neil Pirie.

Neil Pirie
62 Springside Drive
Hamilton, ON L9B 1M7

1.3 Policy Framework

1.3.1 *Planning Act and Provincial Policy Statement (PPS)*

The authority to request this heritage assessment arises from the *Ontario Heritage Act (OHA)* (MHSTCI 1990), Section 2(d) of the *Planning Act* (Ministry of Municipal Affairs and Housing 1990), the *Provincial Policy Statement* (Government of Ontario 2020), and Part B, Section 3 of the City of Hamilton's *Official Plan* (City of Hamilton 2013).

The *OHA* enables designation of properties and districts under Part IV and Part V, Sections 26 through 46 and provides the legislative bases for applying heritage easements to real property (MHSTCI 1990).

The *Planning Act* (1990) and related *Provincial Policy Statement (PPS 2020)* make a number of provisions relating to heritage conservation (Ministry of Municipal Affairs and Housing 1990; Government of Ontario 2020). One of the general purposes of the *Planning Act* is to integrate matters of provincial interest in provincial and municipal planning decisions. To inform all those involved in planning activities of the scope of these matters of provincial interest, Section 2 of the *Planning Act* provides an extensive listing. These matters of provincial interest shall be regarded when certain authorities, including the

council of a municipality, carry out their responsibilities under the *Act*. One of these provincial interests is directly concerned with:

- 2 (i) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest.

The *PPS* indicates in Section 4 - Implementation/Interpretation, that:

- 4.7 The official plan is the most important vehicle for implementation of this Provincial Policy Statement. Comprehensive, integrated and long-term planning is best achieved through official plans.

Official plans shall identify provincial interests and set out appropriate land use designations and policies. To determine the significance of some natural heritage features and other resources, evaluation may be required.

Official plans should also coordinate cross-boundary matters to complement the actions of other planning authorities and promote mutually beneficial solutions. Official plans shall provide clear, reasonable and attainable policies to protect provincial interests and direct development to suitable areas.

In order to protect provincial interests, planning authorities shall keep their official plans up-to-date with this Provincial Policy Statement. The policies of this Provincial Policy Statement continue to apply after adoption and approval of an official plan.

Those policies of particular relevance for the conservation of heritage features are contained in Section 2, *Wise Use and Management of Resources*, in which the preamble states that "Ontario's long-term prosperity, environmental health, and social well-being depend on protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits."

Accordingly, in subsection 2.6, *Cultural Heritage and Archaeology* makes the following relative provisions:

- 2.6.1 Significant built heritage resources and significant cultural heritage landscapes shall be conserved.
- 2.6.3 Planning authorities shall not permit development and site alteration on adjacent lands to protected heritage property except where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.

This provides the context not only for discrete planning activities detailed in the *Planning Act* but also for the foundation of policy statements issued under Section 3 of the *Planning Act*.

1.3.2 The Growth Plan for the Greater Golden Horseshoe (2019)

The 2019 *Growth Plan for the Greater Golden Horseshoe (Growth Plan)* identifies several policies relating to the conservation of cultural heritage resources within the Province (Government of Ontario 2019). Section 1.1 of the Growth Plan speaks to the challenges faced by increased growth in the Greater Golden Horseshoe, and that “unmanaged growth can degrade the region’s air quality; water resources; natural heritage resources, such as rivers, lakes, woodlands, and wetlands; and cultural heritage resources.

Section 4 of the *Growth Plan* speaks to the protection of valuable resources, including cultural heritage resources, in Section 4.1:

The *GGH* contains a broad array of important hydrologic and *natural heritage features and areas*, a vibrant and diverse agricultural land base, irreplaceable *cultural heritage resources*, and valuable renewable and non-renewable resources. These lands, features and resources are essential for the long-term quality of life, economic prosperity, environmental health, and *ecological integrity* of the region. They collectively provide essential ecosystem services, including water storage and filtration, cleaner air and habitats, and support pollinators, carbon storage, adaptation and resilience to climate change.

Through their historic relationship with the lands and resources in this region, Indigenous communities have gained traditional knowledge that is of value to the planning decisions being made today. A balanced approach to the wise use and management of all resources, including those related to water, natural heritage, agriculture, cultural heritage, and mineral aggregates, will be implemented in the *GGH*.

The *GGH* also contains important *cultural heritage resources* that contribute to a sense of identity, support a vibrant tourism industry, and attract investment based on cultural amenities. Accommodating growth can put pressure on these resources through *development* and *site alteration*. It is necessary to plan in a way that protects and maximizes the benefits of these resources that make our communities unique and attractive places to live.

Section 4.2.7 of the *Growth Plan* provides specific policy guidance relating to cultural heritage resources:

Cultural heritage resources will be conserved in order to foster a sense of place and benefit communities, particularly in *strategic growth areas*.

Municipalities will work with stakeholders, as well as First Nations and Métis communities, in developing and implementing official plan policies and strategies for the identification, wise use and management of *cultural heritage resources*.

Municipalities are encouraged to prepare archaeological management plans and municipal cultural plans and consider them in their decision-making.

1.3.3 Urban Hamilton Official Plan (2013, Consolidation – December 2019)

As the subject land is located within the City of Hamilton, the City's municipal policies within the *Urban Hamilton Official Plan (2013, Consolidation – December 2019)* regarding cultural heritage resources were thus reviewed as part of this assessment (City of Hamilton 2013). A summary of relevant municipal policies pertaining to Cultural Heritage Impact Assessments (CHIA) are provided below.

Section 3.4.2.12 of the, Volume 1, requires general heritage policies be applied to the development process through a *cultural heritage impact assessment* which determines whether the development project has the potential to "adversely affect the following cultural heritage resources through displacement or disruption:"

- a) Properties designated under any part of the *OHA* or *adjacent* properties designated under any part of the *OHA*;
- b) Properties that are included in the City's Register of Property of Cultural Heritage Value or Interest or *adjacent* to properties included in the City's Register of Property of Cultural Heritage Value or Interest;
- c) A registered or known archaeological site or *areas of archaeological potential*;
- d) Any area for which a *cultural heritage conservation plan statement* has been prepared; or,
- e) Properties that comprise or are contained within *cultural heritage landscapes* that are included in the Register of Property of Cultural Heritage Value or Interest.

Sections 3.4.2.13 and 3.4.2.14 further outline the City of Hamilton's guidelines for the application of its heritage policy to the development process:

- 3.4.2.13 *Cultural heritage impact assessments* shall be prepared in accordance with any applicable guidelines and Policy F.3.2.3 – Cultural Heritage Impact Assessments. The City shall develop guidelines for the preparation of *cultural heritage impact assessment*.
- 3.4.2.14 Where *cultural heritage resources* are to be affected, the City may impose conditions of approval on any planning application to ensure their continued protection. In the event that rehabilitation and reuse of the resources is not viable and this has been demonstrated by the proponent, the City may require that affected resources be thoroughly documented for archival purposes at the expense of the applicant prior to demolition.

In addition, the following policy goals in Section 3.4 are outlined within the *Urban Hamilton Official Plan* pertaining to the conservation of heritage resources:

- B.3.4.1.3 Ensure that all new *development, site alterations, building alterations, and additions* are contextually appropriate and maintain the integrity of all on-site or *adjacent cultural heritage resources*.

- B.3.4.2.1(g) Ensure the conservation and protection of *cultural heritage resources* in planning and development matters subject to the *Planning Act* either through appropriate planning and design measures or as conditions of development approvals. and,
- B.3.4.2.1(h) Conserve the character of areas of cultural heritage significance, including designated heritage conservation districts and *cultural heritage landscapes*, by encouraging those land uses, *development* and *site alteration* activities that protect, maintain and enhance these areas within the City.

1.4 Project Consultation

The following organizations, websites, online heritage documents, and online heritage mapping tools were consulted to confirm the level of heritage significance of the properties and to request additional information generally:

- The City of Hamilton's *Register of Property of Cultural Heritage Value or Interest*¹
 - 455 Bay Street North is designated under Part IV of the *OHA* (City of Hamilton By-law No. 86-18) (City of Hamilton 1985)
 - The following properties are adjacent to 455 & 457 Bay Street North:
 - 449 Bay Street North, listed on the City's inventory
 - 459 Bay Street North, listed on the City's inventory
 - Gartshore-Thomson Building in Pier 4 Park, Designated under Part IV of the *OHA* (City of Hamilton By-law No. 94-094) (City of Hamilton 1994)
- Parks Canada's *Canada's Historic Places* website²
 - The properties are not in Parks Canada's *Canada's Historic Places* database.
- Parks Canada's *Directory of Federal Heritage Designation*³
 - The properties are not in Parks Canada's *Directory of Federal Heritage Designations*.
- Ontario Heritage Trust's *OHA Register*⁴
 - The property at 455 Bay Street North and the adjacent Gartshore-Thomson Building in Pier 4 Park are included on the Ontario Heritage Trust's *OHA Register*.
- Ontario Heritage Trust's *Ontario Heritage Plaque Guide*⁵
 - There are no Ontario Heritage Trust plaques on the properties.
- *Ontario's Historical Plaques*⁶
 - There are no Ontario Historical Plaques on the properties.
- *City of Hamilton Plaque*

¹ Available at <https://www.hamilton.ca/city-planning/heritage-properties/heritage-resources> [accessed 11 June 2020]

² Available at <http://www.historicplaces.ca/en/pages/about-apropos.aspx> [accessed 11 June 2020]

³ Available at http://www.pc.gc.ca/apps/dfhd/default_eng.aspx [accessed 11 June 2020]

⁴ Available at <https://www.heritagetrust.on.ca/en/pages/tools/ontario-heritage-act-register> [accessed 11 June 2020]

⁵ Available at <http://www.heritagetrust.on.ca/Resources-and-Learning/Online-Plaque-Guide.aspx> [accessed 11 June 2020]

⁶ Available at <http://www.ontarioplaques.com/> [accessed 11 June 2020]

- The building has a City of Hamilton plaque noting that the building is designated under the Ontario Heritage Act.

In addition, the following City of Hamilton staff were consulted to provide information about the property:

- Email correspondence with David Addington, Heritage Planner, City of Hamilton (dated May 14, 2020, response received May 14, 2020)
 - David provided direction with regards to the site visit and restrictions/caution related to the ongoing Covid-19 Pandemic. Due to the nature of the proposed alterations to 455 Bay Street North, David had no concerns about not entering the residence as long as the impact on the "waterfront orientation" could be properly evaluated from the exterior.

1.5 Cultural Heritage Value

The property at 455 Bay Street North is designated under Part IV of the *OHA* (City of Hamilton By-law No. 86-18). In addition, the following properties are adjacent to 455 & 457 Bay Street North (Figure 4):

449 Bay Street North

Listed on the City's inventory



459 Bay Street North

Listed on the City's inventory



The Gartshore-Thomson Building in Pier 4 Park

Designated under Part IV of the OHA (City of Hamilton By-law No. 94-094)



Figure 4: Adjacent heritage properties

2.0 HISTORICAL RESEARCH

2.1 Overview of Indigenous Land Use and Settlement

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years before present (BP) (Ferris 2013). Populations at this time would have been highly mobile, inhabiting a boreal-parkland like the modern sub-arctic. By approximately 10,000 BP, the environment had progressively warmed (Edwards and Fritz 1988) and populations now occupied less extensive territories (Ellis and Deller 1990).

Between approximately 10,000-5,500 BP, the Great Lakes basins experienced low-water levels, and many sites which would have been located on those former shorelines are now submerged. This period produces the earliest evidence of heavy wood working tools, an indication of greater investment of labour in felling trees for fuel, to build shelter, and watercraft production. These activities suggest prolonged seasonal residency at occupation sites. Polished stone and native copper implements were being produced by approximately 8,000 BP; the latter was acquired from the north shore of Lake Superior, evidence of extensive exchange networks throughout the Great Lakes region. The earliest evidence for cemeteries dates to approximately 4,500-3,000 BP and is indicative of increased social organization, investment of labour into social infrastructure, and the establishment of socially prescribed territories (Ellis et al. 1990, 2009; Brown 1995:13).

Between 3,000-2,500 BP, populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. The Woodland period begins around 2,500 BP and exchange and interaction networks broaden at this time (Spence et al. 1990:136, 138) and by approximately 2,000 BP, evidence exists for macro-band camps, focusing on the seasonal harvesting of resources (Spence et al. 1990:155, 164). By 1,500 BP there is macro botanical evidence for maize in southern Ontario, and it is thought that maize only supplemented people's diet. There is earlier phytolithic evidence for maize in central New York State by 2,300 BP - it is likely that once similar analyses are conducted on Ontario ceramic vessels of the same period, the same evidence will be found (Birch and Williamson 2013:13-15). Bands likely retreated to interior camps during the winter. It is generally understood that these populations were Algonquian-speakers during these millennia of settlement and land use.

From the beginning of the Late Woodland period at approximately 1,000 BP, lifeways became more similar to that described in early historical documents. Between approximately 1000-1300 Common Era (CE), the communal site is replaced by the village focused on horticulture. Seasonal disintegration of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson 1990:317). By 1300-1450 CE, this episodic community disintegration was no longer practised and populations now communally occupied sites throughout the year (Dodd et al. 1990:343). From 1450-1649 CE this process continued with the coalescence of these small villages into larger communities (Birch and Williamson 2013). Through this process, the socio-political organization of the First Nations, as described historically by the French and English explorers who first visited southern Ontario, was developed. By 1600 CE, the communities within Simcoe County had formed the Confederation of Nations encountered by the first European explorers and missionaries. In the 1640s,

the traditional enmity between the Haudenosaunee⁷ and the Huron-Wendat (and their Algonquian allies such as the Nipissing and Odawa) led to the dispersal of the Huron-Wendat.

Samuel de Champlain in 1615 reported that a group of Iroquoian-speaking people situated between the Haudenosaunee and the Huron-Wendat were at peace and remained “la nation neutre”. In subsequent years, the French visited and traded among the Neutral, but the first documented visit was not until 1626, when the Recollet missionary Joseph de la Roche Daillon recorded his visit to the villages of the Attiwandaron, whose name in the Huron-Wendat language meant “those who speak a slightly different tongue” (the Neutral apparently referred to the Huron-Wendat by the same term). Like the Huron-Wendat, Petun, and Haudenosaunee, the Neutral people were settled village agriculturalists. Several discrete settlement clusters have been identified in the lower Grand River, Fairchild-Big Creek, Upper Twenty Mile Creek, Spencer-Bronte Creek drainages, Milton, Grimsby, Eastern Niagara Escarpment and Onondaga Escarpment areas, which are attributed to Iroquoian populations. These settlement clusters are believed by some scholars to have been inhabited by populations of the Neutral Nation or pre- (or ancestral) Neutral Nation (Lennox and Fitzgerald 1990).

Between 1647 and 1651, the Neutral were decimated by epidemics and ultimately dispersed by the Haudenosaunee, who subsequently settled along strategic trade routes on the north shore of Lake Ontario for a brief period during the mid seventeenth-century. Compared to settlements of the Haudenosaunee, the “Iroquois du Nord” occupation of the landscape was less intensive. Only seven villages are identified by the early historic cartographers on the north shore, and they are documented as considerably smaller than those in New York State. The populations were agriculturalists, growing maize, pumpkins, and squash. These settlements also played the important alternate role of serving as stopovers and bases for Haudenosaunee travelling to the north shore for the annual beaver hunt (Konrad 1974).

Shortly after dispersal of the Wendat, Ojibwa began to expand into southern Ontario and Michigan from along the east shore of Georgian Bay, west along the north shore of Lake Huron, and along the northeast shore of Lake Superior and onto the Upper Peninsula of Michigan (Rogers 1978:760–762). This history was constructed by Rogers using both Anishinaabek oral tradition and the European documentary record, and notes that it included Chippewa, Ojibwa, Mississauga, and Saulteaux or “Southeastern Ojibwa” groups. Ojibwa, likely Odawa, were first encountered by Samuel de Champlain in 1615 along the eastern shores of Georgian Bay. Etienne Brule later encountered other groups and by 1641, Jesuits had journeyed to Sault Sainte Marie (Thwaites 1896:11:279) and opened the Mission of Saint Peter in 1648 for the occupants of Manitoulin Island and the northeast shore of Lake Huron. The Jesuits reported that these Algonquian peoples lived “solely by hunting and fishing and roam as far as the “Northern sea” to trade for “Furs and Beavers, which are found there in abundance” (Thwaites 1896-1901, 33:67), and “all of these Tribes are nomads, and have no fixed residence, except at certain seasons of the year, when fish are plentiful, and this compels them to remain on the spot” (Thwaites 1896-1901, 33:153). Algonquian-speaking groups were historically documented wintering with the Huron-Wendat, some who abandoned their country on the shores of the St. Lawrence because of attacks from the Haudenosaunee (Thwaites 1896-1901, 27:37).

⁷ The Haudenosaunee are also known as the New York Iroquois or Five Nations Iroquois and after 1722 Six Nations Iroquois. They were a confederation of five distinct but related Iroquoian-speaking groups – the Seneca, Onondaga, Cayuga, Oneida, and Mohawk. Each lived in individual territories in what is now known as the Finger Lakes district of Upper New York. In 1722 the Tuscarora joined the confederacy.

Other Algonquian groups were recorded along the northern and eastern shores and islands of Lake Huron and Georgian Bay - the “Ouasouarini” [Chippewa], the “Outchougai” [Outchougai], the “Atchiligouan” [Achiligouan] near the mouth of the French River and north of Manitoulin Island the “Amikouai, or the nation of the Beaver” [Amikwa; Algonquian] and the “Oumisagai” [Mississauga; Chippewa] (Thwaites 1896-1901, 18:229, 231). At the end of the summer 1670, Father Louys André began his mission work among the Mississagué, who were located on the banks of a river that empties into Lake Huron approximately 30 leagues from the Sault (Thwaites 1896-1901, 55:133-155).

After the Huron had been dispersed, the Haudenosaunee began to exert pressure on Ojibwa within their homeland to the north. While their numbers had been reduced through warfare, starvation, and European diseases, the coalescence of various Anishinaabek groups led to enhanced social and political strength (Thwaites 1896-1901, 52:133) and Sault Sainte Marie was a focal point for people who inhabited adjacent areas both to the east and to the northwest as well as for the Saulteaux, who considered it their home (Thwaites 1896-1901, 54:129-131). The Haudenosaunee established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario. From east to west, these villages consisted of Ganneious, on Napanee Bay, an arm of the Bay of Quinte; Quinte, near the isthmus of the Quinte Peninsula; Ganaraske, at the mouth of the Ganaraska River; Quintio, at the mouth of the Trent River on the north shore of Rice Lake; Ganatsekwyagon (or Ganestiquiagon), near the mouth of the Rouge River; Teyaiagon, near the mouth of the Humber River; and Quinaouatoua, on the portage between the western end of Lake Ontario and the Grand River (Konrad 1981:135). Their locations near the mouths of the Humber and Rouge Rivers, two branches of the Toronto Carrying Place, strategically linked these settlements with the upper Great Lakes through Lake Simcoe. The inhabitants of these villages were agriculturalists, growing maize, pumpkins and squash, but their central roles were that of portage starting points and trading centres for Iroquois travel to the upper Great Lakes for the annual beaver hunt (Konrad 1974; Williamson et al. 2008:50–52). Ganatsekwyagon, Teyaiagon, and Quinaouatoua were primarily Seneca; Ganaraske, Quinte and Quintio were likely Cayuga, and Ganneious was Oneida, but judging from accounts of Teyaiagon, all of the villages might have contained peoples from a number of the Iroquois constituencies (ASI 2013).

During the 1690s, some Ojibwa began moving south into extreme southern Ontario and soon replaced the Haudenosaunee by force. By the first decade of the eighteenth century, the Michi Saagiig Nishnaabeg (Mississauga Nishnaabeg) had settled at the mouth of the Humber, near Fort Frontenac at the east end of Lake Ontario and the Niagara region and within decades were well established throughout southern Ontario. In 1736, the French estimated there were 60 men at Lake Saint Clair and 150 among small settlements at Quinte, the head of Lake Ontario, the Humber River, and Matchedash (Rogers 1978:761). This history is based almost entirely on oral tradition provided by Anishinaabek elders such as George Copway (Kahgegagahbowh), a Mississauga born in 1818 near Rice Lake who followed a traditional lifestyle until his family converted to Christianity (MacLeod 1992:197; Smith 2000). According to Copway, the objectives of campaigns against the Haudenosaunee were to create a safe trade route between the French and the Ojibwa, to regain the land abandoned by the Huron-Wendat. While various editions of Copway’s book have these battles occurring in the mid-seventeenth century, common to all is a statement that the battles occurred around 40 years after the dispersal of the Huron-Wendat (Copway 1850:88, 1851:91, 1858:91). Various scholars agree with this timeline ranging from 1687, in conjunction with Denonville’s attack on Seneca villages (Johnson 1986:48; Schmalz 1991:21–22)

to around the mid- to late-1690s leading up to the Great Peace of 1701 (Schmalz 1977:7; Bowman 1975:20; Smith 1975:215; Tanner 1987:33; Von Gernet 2002:7–8).

Robert Paudash's 1904 account of Mississauga origins also relies on oral history, in this case from his father, who died at the age of 75 in 1893 and was the last hereditary chief of the Mississauga at Rice Lake. His account in turn came from his father Cheneebesh, who died in 1869 at the age of 104 and was the last sachem or Head Chief of all the Mississaugas. He also relates a story of origin on the north shore of Lake Huron (Paudash 1905:7–8) and later, after the dispersal of the Huron-Wendat, carrying out coordinated attacks against the Haudenosaunee. Francis Assikinack, an Ojibwa of Manitoulin Island born in 1824, provides similar details on battles with the Haudenosaunee (Assikinack 1858:308–309).

Peace was achieved between the Haudenosaunee and the Anishinaabek Nations in August of 1701 when representatives of more than twenty Anishinaabek Nations assembled in Montreal to participate in peace negotiations (Johnston 2004:10). During these negotiations captives were exchanged and the Iroquois and Anishinaabek agreed to live together in peace. Peace between these nations was confirmed again at council held at Lake Superior when the Iroquois delivered a wampum belt to the Anishinaabek Nations.

From the beginning of the eighteenth century to the assertion of British sovereignty in 1763, there is no interruption to Anishinaabek control and use of southern Ontario. While hunting in the territory was shared, and subject to the permission of the various nations for access to their lands, its occupation was by Anishinaabek until the assertion of British sovereignty, the British thereafter negotiating treaties with them. Eventually, with British sovereignty, tribal designations changed (Smith 1975:221–222; Surtees 1985:20–21). According to Rogers (1978), by the twentieth century, the Department of Indian Affairs had divided the "Anishinaubag" into three different tribes, despite the fact that by the early eighteenth century, this large Algonquian-speaking group, who shared the same cultural background, "stretched over a thousand miles from the St. Lawrence River to the Lake of the Woods." With British land purchases and treaties, the bands at Beausoleil Island, Cape Croker, Christian Island, Georgina and Snake Islands, Rama, Sarnia, Saugeen, the Thames, and Walpole, became known as "Chippewa" while the bands at Alderville, New Credit, Mud Lake, Rice Lake, and Scugog, became known as "Mississauga." The northern groups on Lakes Huron and Superior, who signed the Robinson Treaty in 1850, appeared and remained as "Ojibbewas" in historical documents.

In 1763, following the fall of Quebec, New France was transferred to British control at the Treaty of Paris. The British government began to pursue major land purchases throughout Ontario in the early nineteenth century, and entered into negotiations with various Nations for additional tracts of land as the need arose to facilitate European settlement.

Following the 1764 Niagara Peace Treaty and the follow-up treaties with Pontiac, the English colonial government considered the Mississaugas to be their allies since they had accepted the Covenant Chain. The English administrators followed the terms of the Royal Proclamation and insured that no settlements were made in the hunting grounds that had been reserved for their use (Johnston 1964; Lytwyn 2005). In 1784, under the terms of the "Between the Lakes Purchase" signed by Sir Frederick Haldimand and the Mississaugas, the Crown acquired over one million acres of land in-part spanning westward from near modern day Niagara-on-the-Lake along the north shore of Lake Ontario to modern day Burlington (Aboriginal Affairs and Northern Development Canada 2016).

The eighteenth century saw the ethnogenesis in Ontario of the Métis, when Métis people began to identify as a separate group, rather than as extensions of their typically maternal First Nations and paternal European ancestry (Métis National Council n.d.). Métis populations were predominantly located north and west of Lake Superior, however, communities were located throughout Ontario (MNC n.d.; Stone and Chaput 1978:607,608). During the early nineteenth century, many Métis families moved towards locales around southern Lake Huron and Georgian Bay, including Kincardine, Owen Sound, Penetanguishene, and Parry Sound (MNC n.d.). Recent decisions by the Supreme Court of Canada (Supreme Court of Canada 2003, 2016) have reaffirmed that Métis people have full rights as one of the Indigenous people of Canada under subsection 91(24) of the Constitution Act, 1867.

2.2 Historical Euro-Canadian Land Use: Township Survey and Settlement

2.2.1 *Wentworth County and Barton Township*

Wentworth County

Wentworth County was once part of the Gore District that covered an area of over a half a million acres in western Ontario. In 1850, when the District was broken up into counties, Wentworth and Halton were united as a single municipality and remained so until 1854. Wentworth County was named in honour of Sir John Wentworth, who served as the Lieutenant Governor of Nova Scotia between 1792 and 1808. He was also the brother-in-law of Sir Francis Gore, who was the Lieutenant Governor of Upper Canada at the time when the new County was established in 1816 (Gardiner 1899:261, 266; Rayburn 1997:24, 367).

Prior to the formation of the Regional Municipality of Hamilton-Wentworth in 1974, Wentworth County was composed of the seven townships, including Ancaster, Barton, Beverly, Binbrook, Flamborough East and Flamborough West, Glanford and Saltfleet, and the City of Hamilton was the county seat. Although the subject property falls within the present-day limits of the City of Hamilton, historically it was associated with the Township of Barton. The earliest settlers in Wentworth County were United Empire Loyalists who built saw and grist mills on area creeks in the early 1790s. These water-powered industries attracted more settlers and other industries, with settlements growing around them. By the 1870s, the Wentworth County landscape was dominated by 100- to 200-acre farm lots separated by road allowances.

Barton Township

The land contained within Barton Township was acquired by the British from the Mississaugas in 1784. This was confirmed by Treaty Number 3, the Between the Lakes Purchase, signed at Niagara in December 1792. The township was first surveyed in 1791, and the first settlers took up occupancy on their lands in that same year (Anonymous 1891: vol. 1:5; Armstrong 1985:141).

For early administrative and land-granting purposes, Barton Township originally comprised part of the District of Nassau, which was created by a proclamation issued by Lord Dorchester in July 1788. The district seat for Nassau was located in the town of Newark (or Niagara), now present-day Niagara-on-

the-Lake. In 1792, Lieutenant-Governor John Graves Simcoe re-organized the province of Upper Canada into new electoral divisions. Barton Township fell within the limits of the first riding of Lincoln County in the Home District, with the County seat located at Newark (Armstrong 1985:160). In 1800, under the provisions of 38 Geo. III ch. 5, the District of Niagara was created out of the Home District with “An Act for the better Division of this Province” which received Royal Assent on January 1, 1800. Newark remained the administrative centre for the Niagara District, while the Town of York (Toronto) became the new seat for the old Home District (Stanton 1843:77–82; Armstrong 1985:138–140).

The original designation for this tract of land was “Township Number 8”. The name that was finally given to the township was derived from Barton upon Humber in Lincolnshire, England. It was said to have been a place of “great strength” and commerce before the Norman Conquest. The English place name was originally spelled “Barntown.” The first settlers in the township were United Empire Loyalists and disbanded troops, mainly men who had served in Butler’s Rangers during the American Revolutionary War. Amongst the earliest to settle within the township were the Land, Ryckman, Horning, Rymal, Terryberry, and Markle families. By March 1816, the population at the Head of the Lake had grown sufficiently in size that a new district was created by an act of the Provincial Legislature. The Gore District was established under the provisions of 56 Geo. III ch. 19, “*An Act to Erect and Form a New District out of certain parts of the Home and Niagara Districts, to be called the District of Gore.*” This new district was extensive, and embraced parts of the future Counties of Haldimand, Brant, Halton, Wellington and Waterloo.

One writer described the Head of the Lake and Burlington Bay in a geographical account of Upper Canada published in the early nineteenth century, though he made no mention of Barton Township. Settlement was slow up until the time of the War of 1812, perhaps due to the early importance of the nearby town of Dundas. By 1815, it is said that Barton Township contained just 102 families. By 1823, however, the township contained three sawmills and a gristmill. By 1841, the township population had increased to 1,434 and it contained five sawmills and one gristmill. In 1846, the township was described as “well settled” and under cultivation (Boulton 1805:48–49; Smith 1846:8; Mika and Mika 1977:143).

Wentworth County was established following the abolition of the old Upper Canadian district system in 1849, being temporarily united with Brant and Halton Counties until 1854-55. Barton Township was annexed by the City of Hamilton in 1960. In 1973-74, the County was dissolved and succeeded by the Regional Municipality of Hamilton-Wentworth. The City of Hamilton has remained the administrative seat or county town since the original creation of the Gore District nearly two centuries ago (Stanton 1843:215; Armstrong 1985:170–171; Jonasson 2006:191–209).

2.3 Land-use History – 455 & 457 Bay Street North

2.3.1 Chain of Ownership

The properties at 455 & 457 Bay Street North are located in Lot 5 & 6 in Block 39 within the Sir Allan MacNab Survey in Concession 1, Lot 15 in the former Township of Barton. Concession 1, Lot 15 was granted by the Crown to John Askin on 10 July 1801. The chain of ownership of Lots 5 & 6 are as follows:

Lot 1, Concession 15	
Owner	Year Purchased
John Askin	1801
Nathaniel Hughson	1805
Benjamin Lockwood	1809
John Springer	1810
George Hamilton	1816
David Beasley	1823
Allan Macnab	1833

Allan Macnab began subdividing Lot 1, Concession 15, creating what is known as the Sir Allan Macnab Survey. The following chart reflects the ownership of Lots 5 & 6 in Block 39 of the survey.

Lot 5 (Location of 457 Bay Street N.)	
Owner	Year Purchased
Hon. James Brooks	1856
Henry Stinson, James and Sarah Stinson	1873
George Askew, Emily Askew (Patterson)	1899
Robert Shoveller	1970
James and Joan Turnbull	1974
Ian and Angela Bailey	1986
Neil Pirie *Lot 5 and 6 were merged under one title.	2017

Lot 6 (455 Bay Street North)	
Owner	Year Purchased
John Strachan	1835
Allan Macnab	1836
William Lee	1838
Thomas Rideout	1855
John Rideout	1867
James Davis	1869
William P. Moore	1882
William Grenier	1884
Charles Irish *The house first appears in the City of Hamilton Directory in 1901	1900
George Askew, Emily Askew (Patterson)	1911
Robert Shoveller	1970
James and Joan Turnbull	1974
Ian and Angela Bailey	1986
Neil Pirie *Lot 5 and 6 were merged under one title.	2017

2.3.2 Mapping Analysis

The 1876 Brosius Map (Figure 5) provides a birdseye artistic depiction of the City of Hamilton and shows the properties at 455 & 457 Bay Street North as they would have looked before the residence at 455 Bay Street North was constructed in 1900. Though only a portion of Burlington Bay is visible in the map below, the Brosius map highlights the importance of the bay as a centre of industry within the city. On the approximate location of 455 & 457 Bay Street North was a large warehouse structure with a wharf extending into Burlington Bay. The history of this structure could not be determined with the resources available, but it is possible that the building sat below Bay Street North, on the water. The west side of Bay Street North also contained two other buildings: a residential building which may be the residence at 459 Bay Street North and the Grant's Sail Loft at 469 Bay Street North. Some of the surrounding area began to be populated by one- and two-storey residential buildings.

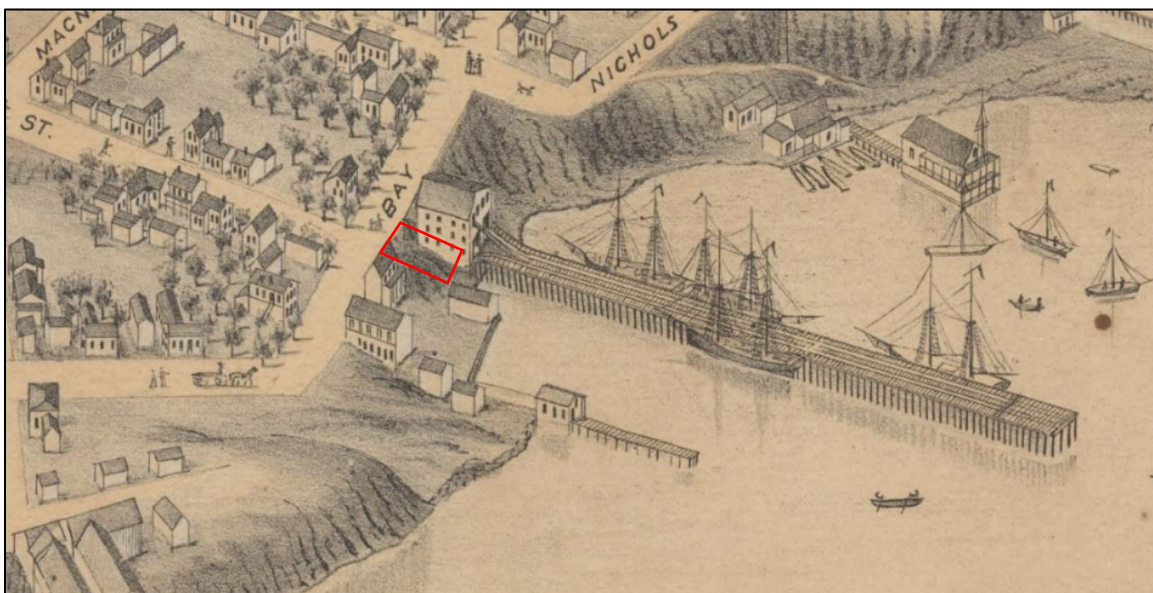


Figure 5: 1876 Brosius Map with approximate study area overlaid (McMaster University)

By 1893, the Toronto Lithographing Company Map of Hamilton (Figure 6) shows that the warehouse and wharf buildings that were present in 1876 have now been removed from the site, though a number of small lake-side buildings are depicted. A two-storey residential building with a rear addition is present in the approximate location of 455 & 457 Bay Street North. It is difficult to ascertain which residence north of Picton Street this is, but it is possible that it is the house at present-day 433 Bay Street North based on the hipped roof and date of construction of that building. The aforementioned residence at 459 Bay Street North and the Grant's Sail Loft at 469 Bay Street North are also present on the west side of Bay Street North, while the surrounding area has had additional residential buildings added.

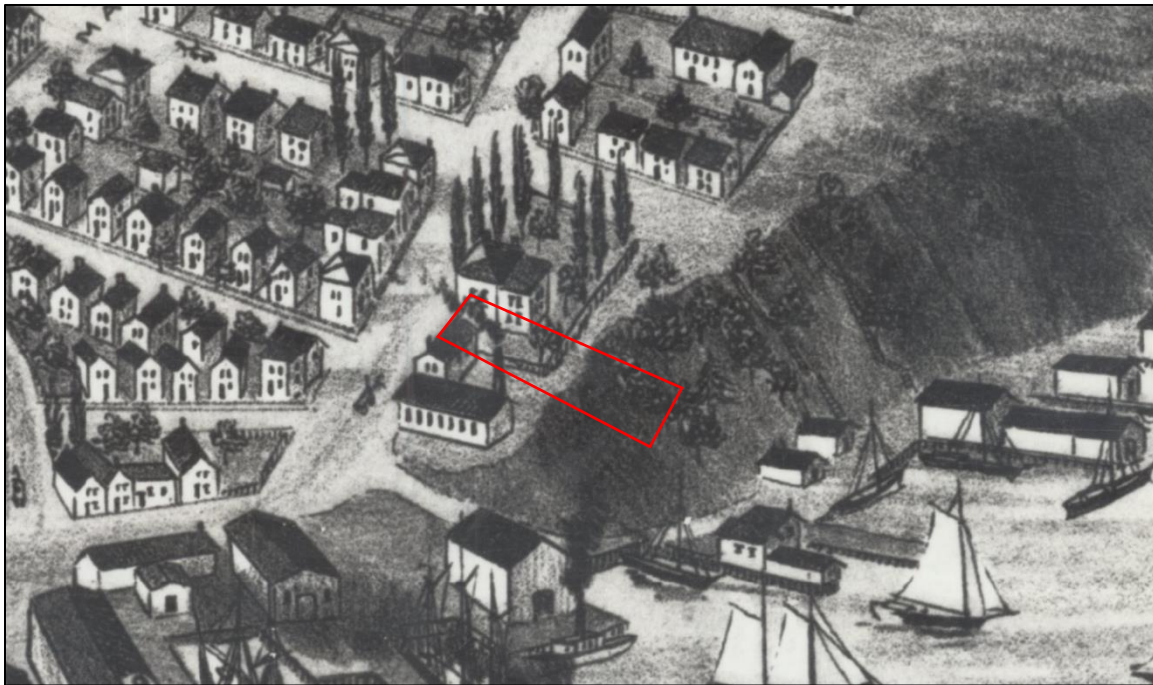


Figure 6: The 1893 Toronto Lithographing Company Map of Hamilton (McMaster University)

The residence at 455 Bay Street North first appears on the 1911 Fire Insurance Plan of Hamilton (Figure 7). The building is depicted as a one-and-a-half storey brick building with a basement straddling the bank of Burlington Bay⁸. Next door at 457 Bay Street North is a one-storey stone structure, which is no longer extant today. The neighbouring building at 459 Bay Street North is depicted. These buildings are all shown atop the ridge that runs parallel to Bay Street North, and beneath these buildings to the west is G. Askew's Boat Building business and a number of boat houses within the bay.

⁸ Though the Fire Insurance Plan notes that the building is a one-and-a-half storey building, the designation by-law refers to the residence as a one-storey building. To avoid confusion related to the designation by-law, the building is described as one-storey throughout this report.

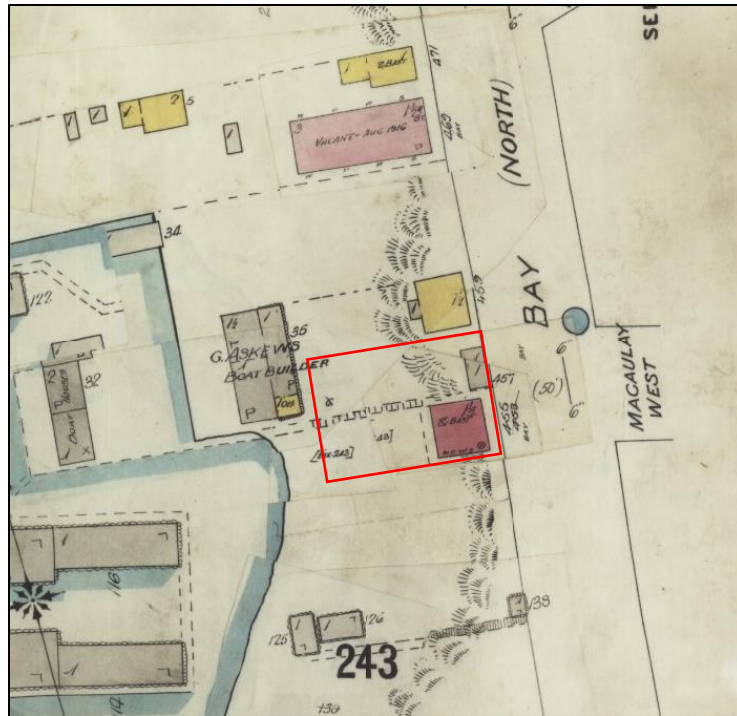


Figure 7: 1911 Fire Insurance Plan (McMaster University)

At least six aerial photographs of this portion of Hamilton were taken between 1934 and 1966 and are available online via McMaster University. Aerial photographs from 1934, 1950 and 1966 are included below (Figure 8 to Figure 10). Due to the small footprint of the house, the resolution of these images and the contrast of the black and white photos, it is difficult to accurately note any changes that may have occurred to 455 & 457 Bay Street North during this time. The residence at 455 Bay Street North is visible in each image, though the small structure noted at 457 Bay Street North on the 1911 Fire Insurance Plan appears to have been removed before 1934. The surrounding area appears to change very little during this period, though there is a gradual decline in the number of boat houses behind the property within Burlington Bay.



Figure 8: 1934 aerial photo (McMaster University)



Figure 9: 1950 aerial photo (McMaster University)



Figure 10: 1966 aerial photo (McMaster University)

In the 1960s, the Macassa Bay Yacht Club began operations in the bay. This was the first step in the bay's transition towards a recreational uses. In the 1980s, the harbour was identified as an area of environmental concern on the Great Lakes, and recreational uses as part of environmental stewardship efforts became a focal point. Bayfront Park was developed on landfill to the west and Pier 4 Park was developed to the northwest in the 1990s. The development of these recreational spaces helped to beautify the waterfront, and provide a variety of amenities and viewsapes.

2.3.3 Historical Background Summary

The properties at 455-457 Bay Street North consist of a one-storey residential building and an empty lot that have been in this location since c. 1900. The residence was built by Charles Irish, and was later owned by George Askew who also owned a boat building business at the bottom of the ridge behind these properties on Macassa Bay. Historically, whether through landowners like Askew or structures like Grant's Sail Loft, there has always been a relationship between the bay and the properties atop the ridge on Bay Street North. Askew's business, and many others like it, are no longer extant on the bay. As such, the relationship between Bay Street North and the water has evolved throughout the twentieth century with the development of residential buildings overlooking the bay. Meanwhile, along with the residential growth atop the ridge, the bay has changed dramatically with the gradual removal of wharfs and boathouses and the development of recreational space along the waterfront. Today, the bay's scenic qualities support the residential neighbourhood atop the ridge and are a key piece of recreational space within the City of Hamilton.

3.0 EXISTING CONDITIONS

3.1 455 Bay Street North

The residence at 455 Bay Street North (Figure 11 to Figure 25) sits atop a ridge that runs parallel to Bay Street North. The top of the bank sits approximately 10-metres above Macassa Bay. The residence sits very close to Bay Street North, only set back a few metres from the sidewalk. The front lawn consists mostly of low vegetation, bushes and a large tree. To the north of the house is an interlocking brick driveway. A wooden fence prevents access to the rear. The slope beyond this fence is steep, and during the site visit, there was construction ongoing. A concrete block and poured cement area is located immediately behind the residence and a wooden deck was under construction. The rear of the property consists of a series of terraces incorporating vegetation and trees with stone retaining walls and stone staircases that provide access to the rear of the property.

The residence is a one-storey brick residential structure with a hipped asphalt roof, centre gable and two brick chimneys. The residence is designed in the traditional Ontario Cottage style with a symmetrical façade, with a central entrance with a segmentally flat arch flanked by large segmentally flat arched windows with stone sills. A circular window is found beneath the centre gable above the entrance. A common bond brick pattern is found throughout the building with brick ribbing along the front elevation. The building also incorporates segmentally arched basement windows. A small plaque detailing the heritage status of the building is located beside the front door.

The north elevation contains a single segmentally arched window with stone sill on the basement storey (which is exposed due to the slope) and a segmentally arched window on the first storey. The south elevation was not visible due to the presence of the garage on the adjacent property and the slope at the back of the house. At the rear of the house is a secondary entrance on the basement floor. The entrance would have previously been accessed via a deck, though this was removed at the time of the site visit. The basement storey also has three windows: two-double hung metal windows and one square fixed window. The first storey has two double hung metal window and a set of three one-over-one casement windows, which are in an enlarged opening. All fenestration on the rear elevation has segmentally arched windows apart from the enlarged first storey window. The parged foundation of the house is visible at the rear at the house.



Figure 11: 455 Bay Street North, front elevation (ASI 2020)



Figure 12: Detail of the centre gable with circular window (ASI 2020)



Figure 13: Detail of the fenestration on the front elevation (ASI 2020)



Figure 14: Detail of the fenestration on the front elevation (ASI 2020)



Figure 15: Detail of the building's plaque, brick banding and flat arch above the window (ASI 2020)



Figure 16: North elevation (ASI 2020)



Figure 17: Rear elevation (ASI 2020)



Figure 18: Detail of the rear elevation (ASI 2020)



Figure 19: Detail of the rear entrance (ASI 2020)



Figure 20: Detail of the rear entrance, window and foundation (ASI 2020)



Figure 21: Detail of the enlarged second storey window on the rear elevation (ASI 2020)



Figure 22: Rear of the property showing the slope (ASI 2020)



Figure 23: Wooden deck, concrete block wall and poured concrete behind the residence (ASI 2020)



Figure 24: View of the property from Macassa Bay (ASI 2020)

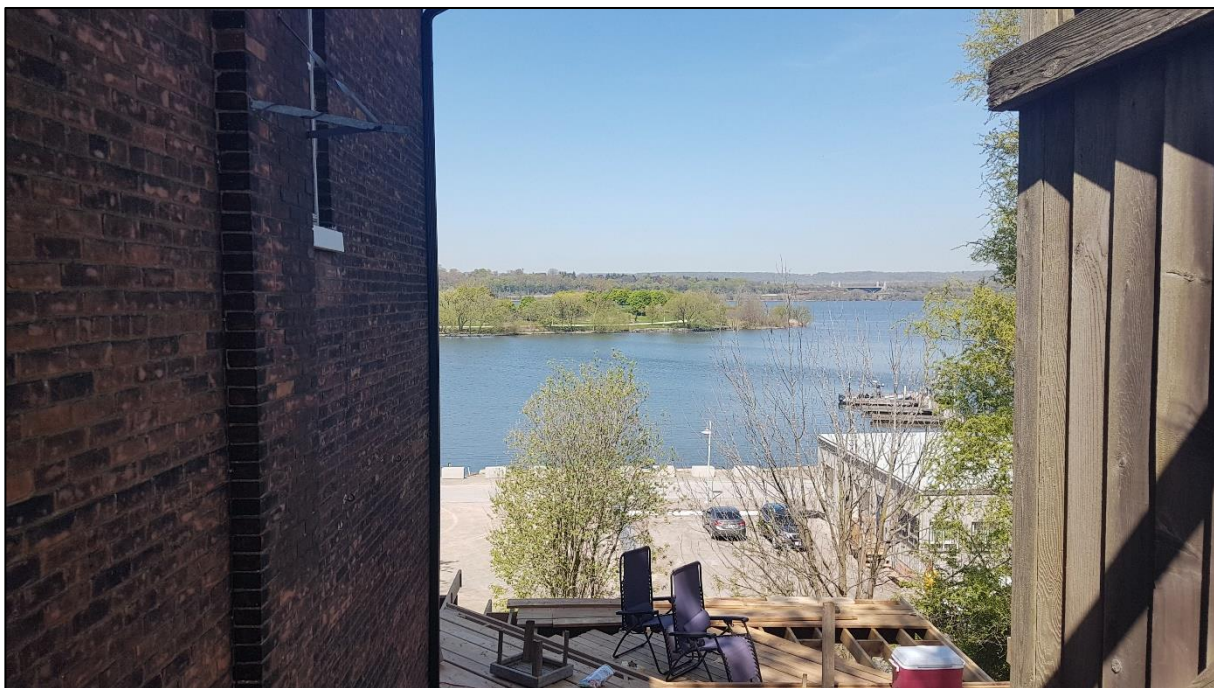


Figure 25: View of Macassa Bay from the residence (ASI 2020)

3.2 Adjacent Properties

3.2.1 449 Bay Street North

The property at 449 Bay Street North (Figure 26) contains a two-storey residential building with cedar shingle cladding, a gable roof on the south side of the building and a hipped roof on the north side and a dormer in the rear. The roof is comprised of asphalt shingles and the building has a tall external brick chimney on its north side. The front façade does not contain an entrance but consists of a trio of one-over-one double-hung wooden windows on the first and second floor. The first floor also incorporates a one-over-one wooden window and a small fixed window. The residence is accessed via the side of the house on the south elevation, which also contains two first-storey windows and a second storey window with a rounded arch. These windows appear to be of different types and styles. The fenestration on the first floor of the north elevation is largely obscured by a tall wooden fence, but there appears to be at least two windows with divisions within them. The second storey consists of a four-over-one double hung window and a fixed window. The rear elevation of the residence was largely obscured by vegetation, but the second storey double hung windows were visible from afar along with a wooden deck. To the north of the residence is a one-storey two-door garage with cedar shingle siding.



Figure 26: 449 Bay Street North, front elevation (ASI 2020)



Figure 27: 449 Bay Street North, rear elevation (ASI 2020)

3.2.2 459 Bay Street North

The residence at 459 Bay Street North is a one-storey building with a T-shaped floor plan, asphalt cross-gable roof and vinyl siding. The building is constructed atop a ridge, with a steep slope in the rear. The residence has a nearly symmetrical front façade, with an entrance flanked by one-over-two windows each with a fixed window with nine divisions above a sliding window. The entrance is accessed via a porch with metal railings. A transom with fritted glass is found above the doorway. The foundation is parged. The south elevation has no fenestration, while the north elevation has only a narrow band of glass block windows. The rear elevation contains large panes of glass beneath the gable and on either side of an entrance that provides to a wooden back porch.



Figure 28: 459 Bay Street North (ASI 2020)



Figure 29: 459 Bay Street North, rear elevation (ASI 2020)

3.2.3 Gartshore-Thomson Building

The Gartshore-Thomson Building (Figure 30) is a one-storey brick industrial structure with a symmetrical façade, hipped roof with a front pedimented gable and a central entrance flanked by three one-over-one double-hung wooden windows with brick segmental arches and stone lintels. The metal roof incorporates brackets and egg-and-dart pilaster mouldings beneath the eaves. The entrance contains a round-arched doorway with a semi-circular brick and stone arch and brick pilasters, sidelights and a segmental transom. An arched wood panel carved with a maple leaf pattern is found above the entrance. The building also incorporates corner quoins. A large set of curved concrete stairs provides access to a landing at the front entrance. The building is located approximately 80 metres to the northwest of the properties at 455 & 457 Bay Street North, but is considered adjacent due to the property boundary of Pier Four Park extending to the south behind the residential properties on Bay Street North.



Figure 30: Gartshore-Thomson Building (ASI 2020)

3.3 Surrounding Area

The surrounding area consists of low-rise detached residential buildings constructed in a variety of styles with brick exteriors or of wood-frame construction (Figure 31 to Figure 33). Generally, the residences are setback close to the street, particularly on the west side of Bay Street North, likely due to the presence of the slope behind the buildings. To the west of the properties at 455 & 457 Bay Street North is a gravel area intended to support parking and boat storage associated with Macassa Bay Yacht Club and the Hamilton Police Service Marine Unit. Many of the residences along the west side of Bay Street North, which sit on the ridge have large rear additions that take advantage of the slope and are designed to provide views to the bay (Figure 34).



Figure 31: Residences along the east side of Bay Street North (ASI 2020)



Figure 32: Residential character of Bay Street North (ASI 2020)



Figure 33: Residential character of Bay Street North (ASI 2020)



Figure 34: The rear of residences along Bay Street North, overlooking Macassa Bay (ASI 2020)

4.0 CULTURAL HERITAGE VALUE

4.1 455 Bay Street North - Statement of Cultural Heritage Value or Interest

The following Statement of Cultural Heritage Value or Interest for 455 Bay Street North is found in City of Hamilton By-law No. 86-18.

STATEMENT OF CULTURAL HERITAGE VALUE OR INTEREST AND DESCRIPTION OF HERITAGE ATTRIBUTES

Located near the northern end of Bay Street, 455 is a one-storey brick residence built in 1900 by Charles Irish, a shoemaker by trade. Designed in the traditional Ontario Cottage style, the house adds architectural character and a sense of continuity to the important residential streetscape of Bay Street North. The building presents a lively street facade featuring a central gable, circular window, brick ribbing, and large windows flanking the central doorway. From inside, the house also enjoys a waterfront orientation, as a lower storey is built into the steeply pitched slope at the rear.

The building was associated with the waterfront at the time when George Askew, of Askew Boat Works, lived in the house, from 1913-1932.

Important to the conservation of 455 Bay Street North is the preservation of the original features of the front facade.

4.2 449 Bay Street North – Proposed List of Cultural Heritage Attributes

The property at 449 Bay Street North is Listed on the City of Hamilton's Inventory. As the property is not designated, a list of cultural heritage attributes has not been created for the property. As such, the following list has been proposed and will be used as the basis for the impact assessment.

- The two-storey height and massing of the building in its location on the west side of Bay Street North;
- The building's waterfront orientation with views from the rear to Macassa Bay;
- Cedar shingle cladding;
- The set of three double-hung windows on the first and second storey of the front façade;
- The brick chimney on the north elevation;
- The one-storey garage with shingle siding and arched openings and wooden doors.

4.3 459 Bay Street North – Proposed List of Cultural Heritage Attributes

The property at 459 Bay Street North is Listed on the City of Hamilton's Inventory. As the property is not designated, a list of cultural heritage attributes has not been created for the property. As such, the following list has been proposed and will be used as the basis for the impact assessment.

- The one-storey height and massing of the building in its location on the west side of Bay Street North;
- The building's waterfront orientation with views from the rear to Macassa Bay;

- The T-shaped plan with cross-gable roof
- The centre entrance and fenestration on the front façade

4.4 Gartshore-Thomson Building – Statement of Cultural Heritage Value or Interest

Context

Donated to the City by the Fracassi family and moved to its present location in 1992, the Gartshore-Thomson building is now a focal point of the new Pier 4 Park at the foot of Bay Street North, just west of the Royal Hamilton Yacht Club. This one-storey late Victorian brick building presently serves as a multi-purpose waterfront park facility. Occupying a prominent hillside site, it commands a panoramic view of Hamilton Harbour; and fitting comfortably into its new park setting, the Gartshore-Thomson building also relates well to the 19th century residential streetscape above to the south, dominated by the 1869 Sail Loft.

Built around the turn-of-the-century as offices for the Gartshore-Thomson Pipe and Foundry Co. Ltd., the building originally stood at the south-west corner of the company property, diagonally facing the intersection of Stuart and Caroline Street.

History

In the early part of this century, the Gartshore-Thomson Pipe and Foundry Co. was not only one of Hamilton's leading industries; it was also the largest pipe manufacturer in the country, recognized nationwide for its high-quality cast-iron water and gas pipes. Established in 1870. by Alexander Gartshore (whose father established the Gartshore Foundry in Dundas, which manufactured the machinery for the 1860 Pumphouse) and Thomas Cowie as the Canada Iron Foundry and Pipe Works, the firm first manufactured cast-iron pipes and general iron castings. Incorporated in 1896 as the Gartshore-Thomson Pipe and Foundry Company Ltd., the firm was by then specializing in the manufacture of pipe for water mains and gas distribution, and was soon supplying the country's major waterworks systems with water mains and other castings. In 1933, it was claimed to be the only manufacturer of "Sand-Spun" cast-iron pipe, a technically superior pipe formed centrifugally in sandlined moulds.

Bought out in the 1940s by Canada Iron Foundries Ltd. (later Canron Ltd.) and operated as a foundry until the mid-1980s, the property was last owned by Philip Environmental Inc., which used the small corner building as an engineering office.

Architecture

This modest brick structure is representative of a building type associated with late 19th century industry -- the small, separate office building modelled on a house form -- and is one of few surviving examples of its type in Hamilton. The residential scale and character of the Gartshore-Thomson building derives from its prototype: the one-storey hip-roofed Ontario cottage; while the detailing is predominantly Classical Revival (e.g. the simulated corner quoins, pedimented gable, bracketed eaves underscored by a continuous dentil course, and the carved keystone and egg-and-dart pilaster mouldings). The tall; round-arched doorway features a semi-circular brick and stone arch sprung from brick pilasters, a solid panelled wood door with sidelights and a segmental transom; above is a distinctive arched wood panel carved with a maple leaf pattern. The new set of wide curved stairs rising

from the pedestrian walkway to a generous landing in front of the main entrance complements the symmetry and detailing of the facade. The original character of the interior has been well preserved in the central space and adjacent offices on the west side of the building. The central room displays a decorative beamed wood ceiling, with panels of diagonal tongue-and-groove boards, moulded beams and cove, and a dentil course below the frieze.

Designated Features

Important to the preservation of the Gartshore-Thomson building are:

- the original features of all four facades, including the brick masonry, brick arches, stone lintels, decorative wood and stone elements, panelled wood doors and large single-pane sash windows, but excluding the new doorway on the east facade and the painted steel roofing;
- and the original interior features of the central room and two offices, including the doorways (with moulded wood frames, panelled and glazed wood doors, and transom lights), wood wainscoting and beamed ceiling, as well as all original window mouldings.

5.0 PROPOSED DEVELOPMENT

5.1 Proposed Development

ASI has reviewed the proposed plans by Toms + McNally Architects (dated Jan 18, 2020, see Figure 35 to Figure 37 and Appendix A). The proposal involves the construction of a rear addition to the existing residential building at 455 Bay Street North and the construction of a new residential building on an empty lot at 457 Bay Street North.

The proposed rear addition to the residence at 455 Bay Street North consists of a three-storey rear addition, with one storey above ground level and two storeys below. The addition takes advantage of the slope behind the building to allow for the addition to not be seen above the house's existing roofline. Much of the existing rear wall of the residence will be removed to integrate the addition into the existing space. The three-storey rear addition is a contemporary design that incorporates lpe wood, gray/black metal sheathing and glass to create a design that is distinct from the existing building and maximizes views towards Burlington Bay. Two patio spaces are designed for the first floor and the lowest floor below grade.

The proposed residence at 457 Bay Street North consists of a proposed two-storey residential building located to the north of the building at 455 Bay Street North in a currently vacant driveway space. The residence has been designed in a contemporary style and its height is consistent with the adjacent heritage buildings on both sides. The residence incorporates a small setback from both 455 Bay Street North and 459 Bay Street North. Like 455 Bay Street North, the proposal takes advantage of the slope providing for two additional storeys below grade. The building incorporates brick, wood, metal and glass materials on its façade, with significant amounts of glazing in the rear to create views towards Macassa Bay. Three balcony spaces have been created to accommodate this feature as well.

Examples of the proposed material palette for both properties is provided in Appendix C.



Figure 35: Proposed Development, front elevation (Toms + McNally Architects 2020)



Figure 36: Rendering from the southeast (Toms + McNally Architects 2020)



Figure 37: Rendering from the southwest (Toms + McNally Architects 2020)

5.2 Impact Assessment

5.2.1 Ontario Heritage Toolkit Evaluation

To assess the potential impacts of the undertaking (see Appendix A for the development plan), the cultural heritage resources and identified cultural heritage attributes were considered against a range of possible impacts as outlined in the *Ontario Heritage Toolkit*, which include:

- Destruction of any, or part of any, significant heritage attributes or features
- Alteration that is not sympathetic, or is incompatible, with the historic fabric and appearance
- Shadows created that alter the appearance of a heritage attribute or change the viability of an associated natural feature or plantings, such as a garden
- Isolation of a heritage attribute from its surrounding environment, context or a significant relationship
- Direct or indirect obstruction of significant views or vistas within, from, or of built and natural features
- A change in land use (such as rezoning a church to a multi-unit residence) where the change in use negates the property's cultural heritage value
- Land disturbances such as a change in grade that alters soils, and drainage patterns that adversely affect a cultural heritage resource, including archaeological resources.

Table 1: Impact Assessment

Impact	Potential impacts
Destruction, removal or relocation	The proposed development does not involve the destruction, removal or relocation of any structures with cultural heritage value. The residence at 455 Bay Street North will be retained in situ.
Alteration	<p>As part of the proposed work, a rear addition will be constructed at the rear of the residence at 455 Bay Street North. The proposed work will involve alterations to the rear of the building, which will affect the existing waterfront orientation towards Burlington Bay, which is indicated as a heritage attribute. However, the proposed addition will involve significant amounts of glazing and patio space that will add new views towards Burlington Bay and will maintain the relationship between the building and the water. Furthermore, the proposed addition is restricted to beneath the roofline of the residence and will not be visible from Bay Street North. In addition, no alterations to 455 Bay Street North are anticipated to have an impact on potential cultural heritage attributes at adjacent heritage buildings.</p> <p>The proposed new residence at 457 Bay Street North will alter the existing streetscape along Bay Street North. Though Bay Street North has not been recognized by the City for its heritage character, the street contains a range of architectural styles and housing types that contribute to its character. The residence has been designed to contribute to the low-rise residential character of the street with a height and massing that is consistent with buildings in the surrounding area. Though the building is contemporary in design and materials, this will create a distinction between the new building and the adjacent heritage buildings, along with other buildings on the street. While creating this distinction, the residence responds to the design of the adjacent heritage buildings by matching the first floor heights of the adjacent buildings; the overall height of 459 Bay Street North; and has been designed to be lower than the peak of the roof of 455 Bay Street North. This type of contemporary design that respects the architecture of adjacent heritage properties is appropriate for infill development and is not anticipated to detract from the character of the adjacent heritage buildings or surrounding streetscape. Furthermore, the setback of the proposed residence will ensure that it is subordinate to the adjacent heritage buildings on both sides.</p>
Shadows	The proposed addition and the proposed new residence at 457 Bay Street North are not anticipated to have any negative shadow impacts on existing cultural heritage resources.
Isolation	The proposed development is not anticipated to isolate any properties from their existing context.
Direct or indirect obstruction of significant views	The existing view from the inside of 455 Bay Street North towards the water will be altered. The proposed rear addition will add new views towards Burlington Bay and maintain the visual relationship between the building and the water.
A change in land use	A new residence is proposed for 457 Bay Street North, which is currently an empty lot. The proposed residential use is consistent with the surrounding neighbourhood.
Soil disturbance	The proposed rear addition to 455 Bay Street North and the proposed residence at 457 Bay Street North will result in soil disturbance, though it is not known if these disturbances will have an impact on the building at 455 Bay Street North or any adjacent heritage buildings. An engineer should provide further confirmation of the slope's stability and outline the proposed strategy to ensure that soil disturbances do not affect the building at 455 Bay Street North and adjacent heritage properties. The engineer should provide a report to the City of Hamilton prior to starting construction.

5.2.2 Policy Discussion

Section 3.4 of the *Urban Hamilton Official Plan, Volume 1* (2019) provides guidance and policies for the management and conservation of cultural heritage resources in the City of Hamilton. The following table outlines the policies that provide city-wide guidance that are relevant to the proposal at 455 & 457 Bay Street North:

Policy	Analysis
<p>B.3.4.1.3 “Ensure that all new development, site alterations, building alterations, and additions are contextually appropriate and maintain the integrity of all on-site or adjacent cultural heritage resources.”</p>	<p>The proposed rear addition to 455 Bay Street North is contextually appropriate and maintains the integrity of the existing building at 455 Bay Street North. The proposed work will involve alterations to the rear of the building, which will affect the existing view from the rear towards Burlington Bay, which is indicated as a heritage attribute. However, the proposed addition will add new views towards Burlington Bay and will maintain the relationship between the building and the water. Furthermore, the proposed addition is restricted to beneath the roofline of the residence and will not be visible from Bay Street North. The proposed design and materials of the rear addition are contemporary and will not be mistaken as part of the original fabric of the residence, which is considered a best practice. The rear addition is also not anticipated to have any impacts on the adjacent heritage building at 449 Bay Street North.</p> <p>The proposed new residence at 457 Bay Street North is not anticipated to have a negative impact on the heritage buildings at 455 and 459 Bay Street North. Though the proposed residence consists of a contemporary design, the proposed building’s massing is consistent with the height and massing of the adjacent buildings and the contemporary design and greater setback will also distinguish the building from its neighbours. In addition, a range of materials and palettes are proposed for the new residence (See Appendix C). While these are intended to be illustrative at the current stage of the project, it is recognized that materiality can strongly influence the extent to which the new residence responds to the character and quality of adjacent heritage properties and the streetscape. Accordingly, it is</p>

	<p>recommended that exterior finishes and materials strive for compatibility with adjacent cultural heritage resources and emphasize the use of masonry (brick) and/or wood as opposed to materials such as steel and concrete for example. The design of the new residence is substantively distinct and therefore, the intervention may be balanced by pairing very compatible materials with such a distinctly modern design.</p>
<p>B.3.4.1.4 “Encourage the rehabilitation, renovation, and restoration of built heritage resources in order that they remain in active use.”</p>	<p>The proposed alterations to 455 Bay Street North will provide for more living space and improve the relationship between the building and Burlington Bay, while maintaining the character of the building from Bay Street North. This will ensure that the building remains in active use by providing a living space that is consistent with contemporary residences.</p>
<p>B.3.4.2.1(g) “Ensure the conservation and protection of cultural heritage resources in planning and development matters subject to the Planning Act either through appropriate planning and design measures or as conditions of development approvals.”</p>	<p>The building at 455 Bay Street will be conserved and incorporates appropriate design measures that are consistent with best practices.</p>

In addition to the policies in the *Urban Hamilton Official Plan, Volume 1* (2019), the properties at 455 & 457 Bay Street North are located within the West Harbour (Setting Sail) Secondary Plan Area. As such, the following cultural heritage policies are found within the Secondary Plan.

Policy	Analysis
<p>B.6.5.2.7 “Conserving and celebrating West Harbour’s heritage is important and should include:</p> <ul style="list-style-type: none"> (a) Conserving and strengthening the overall character of the West Harbour neighbourhoods and streetscapes” (b) “Conserving, restoring and reusing historic buildings and structures 	<p>The proposed rear addition to 455 Bay Street North will retain the existing building. The building’s presence within the streetscape will not be altered as the addition will not be visible from Bay Street North.</p> <p>The proposed new residence at 457 Bay Street North will contribute to the low-rise residential character of the street as its massing is consistent with buildings in the surrounding area. Though the building is contemporary in design and</p>

materials, this will create a distinction between the new building and the adjacent heritage buildings. The range of materials and palettes proposed for the new residence are included in Appendix C. While these are intended to be illustrative at the current stage of the project, it is recognized that materiality can strongly influence the extent to which the new residence responds to the character and quality of adjacent heritage properties and the streetscape. Accordingly, it is recommended that exterior finishes and materials strive for compatibility with adjacent cultural heritage resources and emphasize the use of masonry (brick) and/or wood as opposed to materials such as steel and concrete for example. Ultimately, the design of the new residence is substantively distinct and therefore, the intervention may be balanced by pairing very compatible materials with such a distinctly modern design.

While creating this distinction via materials and design, the residence responds to the design of the adjacent heritage buildings by matching the first floor heights of the adjacent buildings; the overall height of 459 Bay Street North; and has been designed to be lower than the peak of the roof of 455 Bay Street North. This type of contemporary design that respects the architecture of adjacent heritage properties is appropriate for infill development and is not anticipated to detract from the character of the adjacent heritage buildings or surrounding streetscape. Furthermore, the setback of the proposed residence will ensure that it is subordinate to the adjacent heritage buildings on both sides.

5.2.3 Standards and Guidelines for the Conservation of Historic Places in Canada

The *Standards and Guidelines for the Conservation of Historic Places in Canada* (2010) contain 14 standards that are intended to provide guidance for the conservation of heritage properties. The following standards are applicable to the proposed development.

Standard	Analysis
<p>1. Conserve the heritage value of an historic place. Do not remove, replace or substantially alter its intact or repairable character-defining elements. Do not move a part of an historic place if its current location is a character-defining element.</p>	<p>The proposed alterations involve the retention of the building at 455 Bay Street North. The proposal will involve the removal of a significant portion of the rear brick wall to accommodate the new addition. This will have an impact on building fabric, though no identified heritage attributes are located at the rear of the house. The sole attribute related to the rear of the house pertains to the existing views from inside the residence towards Macassa Bay. The existing fenestration at the rear of the building has been altered over time to enhance these views and the new addition incorporates glazing and patio space that will further enhance the relationship between the house and the water. It is anticipated that the visual relationship between the house and the waterfront will be maintained.</p> <p>With regards to the removal of materials from the rear of the house, a structural assessment should be conducted to ensure that the removal of materials does not negatively impact the structural integrity of the building. In addition, the rear of the house should be documented and materials should be potentially salvaged, as per best practices in heritage conservation.</p>
<p>3. Conserve heritage value by adopting an approach calling for minimal intervention.</p>	<p>The proposed development involves alterations to the rear of the building at 455 Bay Street North. The addition has been designed to be beneath the existing roofline, which will prevent it from being visible from the street. No alterations are proposed to any portions of the building that are visible from Bay Street North. As discussed above, the rear of the house does not contain any heritage attributes that will be removed. As such, the interventions have been kept to a minimum and the building will retain its existing character.</p>
<p>5. Find a use for an historic place that requires minimal or no change to its character-defining elements</p>	<p>The existing residential use of the building at 455 Bay Street North will be maintained.</p>
<p>11. Conserve the heritage value and character-defining elements when creating any new additions to an historic place or any related new construction. Make the new work physically and</p>	<p>The proposed development involves alterations to the rear of the building at 455 Bay Street North. The addition has been designed to be beneath the existing roofline, which will prevent</p>

visually compatible with, subordinate to and distinguishable from the historic place.

it from being visible from the street. No alterations are proposed to any portions of the building that are visible from Bay Street North. The addition incorporates contemporary design and materials that are distinguishable from the heritage building.

The proposed new residence at 457 Bay Street North will contribute to the low-rise residential character of the street as its massing is consistent with buildings in the surrounding area. Though the building is contemporary in design and materials, this will create a distinction between the new building and the adjacent heritage buildings. The range of materials and palettes proposed for the new residence are included in Appendix C. While these are intended to be illustrative at the current stage of the project, it is recognized that materiality can strongly influence the extent to which the new residence responds to the character and quality of adjacent heritage properties and the streetscape. Accordingly, it is recommended that exterior finishes and materials strive for compatibility with adjacent cultural heritage resources and emphasize the use of masonry (brick) and/or wood as opposed to materials such as steel and concrete for example. Ultimately, the design of the new residence is substantively distinct and therefore, the intervention may be balanced by pairing very compatible materials with such a distinctly modern design.

While creating this distinction via materials and design, the residence responds to the design of the adjacent heritage buildings by matching the first floor heights of the adjacent buildings; the overall height of 459 Bay Street North; and has been designed to be lower than the peak of the roof of 455 Bay Street North. This type of contemporary design that respects the architecture of adjacent heritage properties is appropriate for infill development and is not anticipated to detract from the character of the adjacent heritage buildings or surrounding streetscape. Furthermore, the setback of the

	proposed residence will ensure that it is subordinate to the adjacent heritage buildings on both sides.
12. Create any new additions or related new construction so that the essential form and integrity of an historic place will not be impaired if the new work is removed in the future.	The proposed rear addition to 455 Bay Street North has been designed to only affect the rear of the building. The form and integrity of the building will not be altered as experienced from the Bay Street North right-of-way. The proposal will involve the removal of a significant portion of the rear brick wall to accommodate the new addition. Prior to the removal of materials from the rear of the house, the rear of the house should be documented to ensure that a record of its rear elevation is on file with the City of Hamilton. The ubiquity of brick materials will ensure that a restoration to its previous state is possible should the new addition ever require removal.

5.3 Mitigation Recommendations

The proposed alterations to the property at 455 Bay Street North and the proposed new residence at 457 Bay Street North are consistent with best practices in heritage conservation and are not anticipated to have negative impacts on the heritage building at 455 Bay Street North or adjacent heritage buildings. The following mitigation recommendations are proposed for consideration:

1. The proposed alterations to the 455 Bay Street North and the proposed new residential building at 457 Bay Street North are designed in a contemporary style with modern finishes. Though the proposed exterior finishes and materials strive for compatibility with adjacent cultural heritage resources, an emphasis should be placed on the use of masonry (brick) and/or wood as opposed to materials such as steel and concrete (for example). It is recommended that the existing drawings include exterior finishes so that the proposal can be fully understood by City of Hamilton staff to ensure that the building is substantively distinct, yet compatible with adjacent cultural heritage resources.
2. City of Hamilton Staff should consider the requirement of a Conservation Plan for the building at 455 Bay Street North. The Conservation Plan should detail how the proposed addition will relate to the existing fabric of the building and should identify areas where maintenance and/or repair is required to ensure the long-term conservation of the building as per the requirements set by the City of Hamilton. The Conservation Plan should also document the rear elevation of the residence and materials removed from the rear of the residence should be considered for salvage.
3. An engineer should provide the City of Hamilton with confirmation of the slope's stability and outline the proposed strategy to ensure that soil disturbances do not affect the building at 455

Bay Street North and adjacent heritage properties. The engineer should provide a report to the City of Hamilton prior to starting construction.

4. A structural assessment should be conducted on the residence at 455 Bay Street north to ensure that the removal of building fabric from the rear of the house does not have a negative impact on the structural integrity of the building.
5. Staging during construction should be carefully planned to ensure that no negative impacts occur to the buildings at 455 Bay Street North and 459 Bay Street North. All efforts should be made to eliminate potential impacts on these buildings during construction. These efforts should be outlined and provided to City of Hamilton Heritage Planning staff in advance of construction activities.

6.0 CONCLUSION

The proposed alterations to the property at 455 Bay Street North and the proposed new residence at 457 Bay Street North are consistent with best practices in heritage preservation and are not anticipated to have negative impacts on the heritage building at 455 Bay Street North or adjacent heritage buildings. The proposed rear addition to 455 Bay Street North has been designed to be beneath the existing roofline, which will prevent it from being visible from the street. Though the proposal requires the removal of existing building fabric, no alterations are proposed to any portions of the building that are visible from Bay Street North and no cultural heritage attributes will be removed. The addition also incorporates contemporary design and materials that are distinguishable from the heritage building.

The proposed new residence at 457 Bay Street North has been designed to be visually compatible with, yet subordinate to and distinguishable from its adjacent heritage buildings. Its massing is consistent with the adjacent buildings, and the contemporary design and materials will ensure that the building is distinguishable. The proposed building is also set back from the adjacent heritage buildings, which will contribute to it being subordinate to the heritage building. Overall, it is anticipated that the proposed new building will not detract from the existing streetscape along Bay Street North.

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Appendix A: Proposed Work

Appendix B: Designation By-law

Appendix C: Proposed Material Palette









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Geotechnical Investigation and Slope Assessment 455 and 457 Bay Street North Hamilton, Ontario

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1.0 INTRODUCTION

Landtek Limited (herein “*Landtek*”) is pleased to submit this Geotechnical Investigation and Slope Assessment report for the site identified as civic address 455 and 457 Bay Street North in Hamilton, Ontario. The work was authorized by Mr. Neil A. Pirie on November 6, 2017. All work was completed in accordance with our proposal reference P17331R, dated November 3, 2017.

Based on the information provided to Landtek by Toms + McNally Design, acting on behalf of the current property owner, Mr. Neil A. Pirie, it is understood that the current property owner, is proposing to develop 457 Bay Street North for residential purposes, and it also intending to perform repairs and upgrades to the existing residential structure directly adjacent at 455 Bay Street North.

The residential structure at 455 Bay Street North is a heritage building built in 1890. It comprises a three storey, red brick-built, residential property with a two-tiered, timber deck leading from the ground floor and basement at the rear. Due to the sloping nature of the area, the front entrance to the property is from the first floor level. A recent condition survey undertaken at the property identified the rear wall of the structure to be bowing outwards, up to approximately 30 mm in places. The cause of the bowing is in the process of being investigated, though there are concerns that the foundations to the structure have been in some way compromised. The remainder of the structure is understood to be in an appropriate condition.

The proposed development at 457 Bay Street North adjacent is anticipated to comprise a two-storey residential structure with a single level of basement. It is understood that the structure is to be constructed into the existing slope such that the basement and ground floor will be below ground at the front of the property and open at the rear of the property. No significant landscaping or regrading is anticipated at the base of the existing slope. At the time of authoring this report, the design information available was limited to the proposed foot print only, with founding and finished floor slab elevations yet to be determined.

It is understood that the site is located outside of the Hamilton Conservation Authority (herein “*HCA*”) regulated watershed. As such, no regulatory approvals are required from the HCA for the proposed development.

This given, the primary objectives of this investigation and assessment are:

- To determine the subsurface soil and groundwater conditions for slope condition assessment;
- Determine whether any specific ground conditions are causing movement to the rear of the property at 455 Bay Street North; and,
- Provide outline foundation considerations for the construction of the proposed residential structure at 457 Bay Street North.

This report has been prepared for the current property owner, Mr. Neil A. Pirie, the nominated engineers, designers, and project managers pertaining to the proposed development works at the site identified as civic address 455 and 457 Bay Street North in Hamilton, Ontario. Further dissemination of this report is not permitted without Landtek’s prior written approval. Additional details of the limitations of this report are presented in Appendix A.

2.0 FIELDWORK AND METHODOLOGY

A site reconnaissance was undertaken by representatives of Landtek on October 16, 2017, and included the visual assessment of the existing slope area together with the condition of the adjacent properties. Photographs and records of the Slope Stability Rating were taken during the reconnaissance, and are presented as Appendix B and Appendix C respectively.

Fieldwork for the borehole drilling works undertaken at the site by Landtek included clearance of underground services, borehole layout, borehole drilling and soil sampling, and field supervision. A total of four boreholes (boreholes BH1 to BH4) were drilled between November 30 and December 1, 2017. All boreholes were logged using those standard symbols and terms defined in Appendix D. The borehole location plan, Drawing 1 is provided in Appendix E.

Boreholes BH1 to BH3 were located adjacent to the rear of 455 Bay Street North, in the lower section of the existing slope face. Due to the limitations in access and absence of flat-lying ground at the rear of the property, the boreholes were drilled using hand-held drilling equipment to achieve maximum depths of approximately 2.5 m below existing ground level.

Borehole BH4 was located in the existing parking lot on 457 Bay Street North, within the tableland at the top of the existing slope. The borehole was drilled using a track-mounted Geoprobe 7822DT fitted with hollow stem augers and advanced to a maximum depth of 12.8 m below existing ground level. Standard Penetration Tests (herein “SPTs”) were undertaken and split spoon samples collected at frequent depth intervals during drilling, with all drilling and sampling operations being completed under the full time supervision of a representative of Landtek.

The soil samples collected were transported to the Landtek’s in-house, Canadian Council of Independent Laboratories (CCIL) certified laboratory and visually examined to determine their textural classification. Moisture contents were carried out on all samples, and four selected soil samples were also submitted for particle size analysis to determine their engineering properties.

Elevations at the borehole locations were established by Landtek relative to site measurements and estimated using hand-held Global Positioning System (GPS) equipment.

3.0 PROJECT AND SITE SETTING

3.1 Site Location and Description

The site is located to the west of Bay Street North in Hamilton, Ontario, and is centered at approximate grid reference 591980, 4791590 (UTM 17T coordinates). The general Geodetic elevation of the ground surface in the area of the site is approximately 89 m. The site location is presented in Figure 1.



Figure 1: Site location and surrounding area.

The area is of a predominantly residential use, with a number of residential properties constructed along a slope that overlooks Hamilton Harbour and the associated marina. The site comprises an area of existing slope face and toe, with Bay Street North following the slope crest in an north-south alignment. The tableland area is situated in the east of the site.

The site consists of two properties identified as civic addresses 455 and 457 Bay Street North. 455 Bay Street North is developed as a residential property, whereas development at 457 Bay Street North is limited to timber decking and the parking lot for 455 Bay Street North.

A selection of photographs of the site is presented in Appendix B.

3.2 Published Geology

Based on a review of an existing geological publication for the site area, Ontario Geological Survey (OGS) Map P2065: "*Quaternary Geology of the Hamilton Area*", the site is underlain by Pleistocene lacustrine and outwash sand deposits. These deposits generally comprise sands and silty sands with occasional gravels and localised clayey partings of variable thicknesses.

According to the OGS Map M2336 “*Paleozoic Geology, Hamilton, Southern Ontario*”, the superficial geology is underlain by bedrock of the Ordovician Queenston Formation, comprising a sequence of red shales with interbedded siltstones and limestones. The OGS Map M2034, “*Bedrock Topography Series, Hamilton Area*”, indicates that the red shale bedrock sub-crops the site at an elevation of approximately 55 m. With a surface elevation at the site of approximately 89 m, the anticipated depth to bedrock is approximately 34 m below existing ground level.

Information provided by a large number of historical borehole records from within the vicinity of the site, and held by the OGS, generally confirms the anticipated geological conditions beneath the site. Based on the data from records for Borehole ID 622333, located approximately 280 m southeast of the site, the superficial soil profile confirms the presence of silty sand, sand and silt deposits to depths of at least 18.7 m.

3.3 Site Geomorphology

The tableland section of the site is flat-lying, and comprises landscaping or private driveway structures. A number of mature trees are also noted. The slope area of the site consists of a section of the east coastline of Hamilton Harbour. The site in the west is densely vegetated, with mature trees noted across the lower section of slope face and the slope toe. The remaining sections of central and upper slope face are either densely vegetated with mature trees, shrubs and low-level grasses, or developed with decking and associated infrastructure.

From slope crest to slope toe, the slope is approximately 8 m high and of an average angle of 25°. No evidence of historical slope movement or failure was noted during the reconnaissance, with all trees being straight and true in their growth patterns, and no drainage issues were identified. These together with other observations and notes correlated during the October 16, 2017 site reconnaissance determined the slope to yield a Slope Stability Rating of 22. The slope is therefore deemed to be a “...*stable slope*”.

3.4 Hydrogeology and Hydrology

According to the OGS, static groundwater levels in the vicinity of the site are generally associated with deeper sand and silt deposits. Publically available, recorded levels are variable but are generally in the range of 10 m and 15 m below existing ground level, which would put groundwater theoretically in hydraulic continuity with the adjacent Hamilton Harbour and Lake Ontario.



The 3D overlay in Figure 2 gives a clearer overview of the site in relation to the adjacent properties and existing structures, including the boatyard of the adjacent Hamilton Harbour marina.

It is also apparent from Figure 2 that the slope area is extensive, of a relatively shallow gradient and heavily vegetated, further identifying its stable condition.

Figure 2: 3D overlay of the slope area.

4.0 SUBSURFACE CONDITIONS

4.1 Overview

The geology encountered across the site was as anticipated from Landtek's review of the published geological information for the site, as detailed in Section 3.2.

The borehole information is generally consistent with the geological data, and the predominant soils comprise silty sands and silts to a maximum proven depth of approximately 12.8 m below existing ground level. The detailed borehole logs are presented in Appendix E, and the ground conditions encountered by the boreholes are discussed further in the following sections.

4.2 Surface Materials

An approximately 150 m thick layer of native topsoil was encountered from ground surface in boreholes BH1 to BH3. Borehole BH4 encountered interlock blocks associated with the private parking lot.

4.3 Fill Materials

Fill materials were encountered in borehole BH 1 to a depth of 1.4 m below existing ground level, and comprises of sand with traces of silt and wood fragments. The sand is generally brown in colour.

The fill materials are in a generally poor compactness condition. Moisture contents of 5 % were reported in samples of the fill material. The moisture content testing results are presented on the borehole logs in Appendix B.

4.4 Silty Sand

Native superficial deposits were encountered underlying either the fill material or native topsoil in borehole BH4, and generally comprised silty sand (SL-SN). The silty sand was observed to be brown/grey in colour and included traces of clay and gravel.

SPT "N" values for the silty sand were recorded ranging from 12 to 30, indicating the silty sand to be in a compact to dense, but generally compact condition.

Moisture content testing results were recorded between 5 % and 26 %, which are generally representative of a damp to wet granular soil. The moisture content testing results are presented on the borehole logs in Appendix B.

4.5 Silt

Silt (SL) deposits were encountered in borehole BH1 underlying the silty sand, and underlying the topsoil in boreholes BH1 to BH3 located downslope. The silt deposits were proven to the maximum drill depth of approximately 12.8 m below existing ground level. The silt was observed to be grey in colour and included traces of gravel and trace to some clay.

The results of particle size analyses performed on three samples recovered from the silt are presented in Appendix F. The following gradation ranges were obtained:

Clay:	8 % to 20 %
Silt:	74 % to 83 %
Sand:	11 % to 26 %
Gravel:	0 %

SPT “N” values for the silty sand were recorded ranging from 19 to 37, indicating the silty sand to be in a compact to dense, but generally compact condition.

Moisture content testing results were recorded between 14 % and 20 %, which are generally to be expected of a native soil comprising predominantly of silt. The moisture content testing results are presented on the borehole logs in Appendix B.

Where boreholes BH1 to BH3 encountered the silt, the deposits were noted to be significantly softer and of higher moisture contents than those silt deposits encountered in borehole BH4.

4.6 Bedrock

No bedrock was encountered during this investigation.

4.7 Groundwater

Groundwater seepages were encountered in all boreholes drilled at the site. A shallow groundwater regime was identified in borehole BH4 at a depth of approximately 9.8 m below existing ground level, equating to a Geodetic elevation of approximately 79 m. No groundwater was encountered in boreholes BH1 to BH3.

It should be noted that the groundwater level is not considered to reflect the long term stabilized water table. Groundwater conditions are expected to vary according to the time of the year and seasonal precipitation levels. During wet weather, an increase in water seepage is to be expected in the shallow fill deposits associated with surface water runoff and migration downslope.

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 Existing Ground Conditions at 455 Bay Street North

Boreholes BH1 to BH3 were excavated adjacent the foundations of the existing structure and encountered the same soil horizons of those in borehole BH4, but in conditions that were both softer and higher in moisture content. The boreholes were advanced to depths of approximately 2.5 m, but were still above the groundwater level reported in borehole BH4. No free-flowing groundwater was noted during the drilling of the boreholes.

It is considered that the increase in moisture content and softening of the soils is most likely the result of waters sourced from elsewhere, possibly from services leading into the property from Bay Street North, entering the now-backfilled footing excavations for the property and permeating the subgrade soils at the rear of the property. This may be supported by the recent reporting, by the current occupant of the property, of a water leak that permeates from a once-dry crack in the basement wall.

As such, it is recommended that further investigation is undertaken to determine the condition of all watermain and sewer connections to the property, together with their associated service trenches, to establish whether subsurface waters are entering into the footing excavation of the existing structure.

5.2 Slope Stability Considerations

Based on the findings of the site reconnaissance and subsequent assessments, it is considered by Landtek that the slope in its current condition is to be deemed stable. This given, the future development proposed at 457 Bay Street North should take into consideration the following:

- The requirement for shoring where significant excavation into the slope will be required;
- The appropriate level of backfill compaction between any earth retaining structure and the native soils so to maintain the overall slope stability;
- The installation of appropriate drainage system to ensure that the moisture conditions of the native soils are not increased and surface water runoff leading down-slope is prevented.

It will be also important to ensure that appropriate considerations and controls are applied at the construction stage during development across the slope face. Controlling surface water and managing soil stockpiles will be necessary to ensure that the slope is not subjected to increases in water volume or surface loads. As such, it is recommended that a Construction Management Plan is developed to define such controls and to assist the General Contractor in completing the construction project.

5.3 Foundation Considerations

Based on the ground conditions observed at the site, it is considered by Landtek that the native silty sand and silt deposits are suitably capable of providing bearing conditions to support the proposed structure at 457 Bay Street North.

Outline design information indicates that, though one level of basement is proposed, both the basement level and ground floor level will be partially underground, though the finished floor elevation of the lowest level is yet to be determined. In addition, given the proposed structure will be constructed into the slope, the foundations for the proposed structure will require

extension to an elevation where the additional loads will not have an adverse impact on slope stability. Ultimately, the proposed finished floor elevation will determine whether standard concrete strip or pad footings will be adequate or whether the required depth extension will be such that a piled solution (e.g. augured caissons, driven or helical piles etc.) would be more appropriate.

Table 1 summarizes the recommended geotechnical reactions at the Serviceability Limit State (herein “SLS”) and factored geotechnical resistances at the Ultimate Limit State (herein “ULS”) for the founding soils at elevations where foundations will not adversely impact slope stability. It should be noted that the design parameters have been determined by Landtek for the design stage only.

Subsurface conditions can vary over relatively short distances and the subsurface conditions revealed at the test locations may not be representative of subsurface conditions across the site. Therefore, a Geotechnical Engineer should be engaged during construction to examine the exposed sub-soil condition, and confirm the subsurface conditions are consistent with design assumptions. This is in compliance with field review requirements in the National Building Code (herein “NBC”), Volume 1, Clause 4.2.2.3.

Table 1: Recommended Limit State Foundation Design Values

Approximate Founding Elevation Range		Founding Stratum	Foundation Design Value	
Depth	Elevation		SLS ^{1 2}	ULS ^{3 4}
1.5 m to 8 m	80.0 m to 81.0 m	Silt	150 kPa	225 kPa

Notes:

1. The National Building Code general safety criterion for the serviceability limit states is: SLS resistance \geq effect of service loads.
2. Recommended SLS bearing values conform to Estimated Values based on soil types given in Tables K-8 and K-9 of the National Building Codes User’s Guide.
3. The ULS resistance factor for shallow foundations is 0.5, as given in Table K-1 of the National Building Code User’s Guide.
4. The National Building Code general safety criterion for the ultimate limit states is: factored ULS resistance \geq effect of factored loads.

5.4 Frost Susceptibility

The silty sand and silt deposits encountered at shallow depths across the site are considered sensitive to water and frost, and their physical and mechanical properties are dependent on in-situ moisture content. As such, the founding soils at the site are considered to have a moderate to high frost susceptibility, being classified as Frost Group “F4” (Table 13.1 of the “*Canadian Foundation Engineering Manual*”, 4th Edition). However, the identified depths for foundations, as given in Section 4.1 are considered to be below the maximum depth for frost penetration of 1.2 m in the Hamilton area.

Should any re-grading be required as part of the proposed development at the rear of the property, it will be important to ensure that the associated exterior footings will have a minimum of 1.2 m of soil cover, or equivalent suitable insulation, for frost protection.

5.5 Settlement Considerations

Based on the outline information provided for the nature of the proposed redevelopment of the site, it is anticipated that of the loads to be applied to the ground by any such structure will be generally low to moderate intensity. As such, associated settlements are not expected to be

large. Therefore, the general limiting of the total settlement to 25 mm and the differential settlement to 19 mm by the recommended geotechnical reaction at the SLS is considered appropriate.

5.6 Seismic Design Considerations

In accordance with Table 4.1.8.4.A. of the current Ontario Building Code (herein “OBC”) the subject property is considered to be a ‘D’ Site Class. The acceleration and velocity-based site coefficients, F_a and F_v , should be determined from Tables 4.1.8.4.B. and 4.1.8.4.C. respectively of the OBC for the above recommended Site Class. The seismic design data given in Table 1.2 of Supplementary Standard SB-1 in Volume 2 of the OBC, for selected Municipal locations, should be used to complete the seismic analysis.

Should a higher classification be required, such as a Site Class ‘C’, then Shear Wave Velocity Testing should be undertaken using Multichannel Analysis of Surface Waves (MASW) methodologies.

5.7 Earth Pressure Considerations on Shoring and Subsurface Walls

The earth pressure, p , acting on subsurface walls at any depth, h , in metres below the ground surface assumes an equivalent triangular fluid pressure distribution and may be calculated using expression (1) below. It is assumed that granular material is used as backfill. Allowances for pressure due to compaction operations should be included in the earth pressure determinations and a value of 12 kPa is applicable for a vibratory compactor and granular material.

If the structure retaining soil can move slightly, the active earth pressure case can be used in determining the lateral earth pressure. For restrained structures and no yielding an “at rest” earth pressure condition should be used. The determination of the earth pressures should be based on the following expression:

$$p = K (\delta h + q) \quad (1)$$

where:

- p = the pressure in kPa acting against any subsurface wall at depth, h , in metres (feet) below the ground surface;
- K = the at rest earth pressure coefficient considered appropriate for subsurface walls; OPSS 1010 Granular B Type 1 (pit-run sand and gravel) material has an effective angle of friction estimated to be 32° with a corresponding at rest earth pressure coefficient, K_o , of 0.45;
- δ = the moist bulk unit weight of the retained backfill; 21.5 kN/m^3

and,

- q = the value for any adjacent surcharge in kPa which may be acting close to the wall
- h = the depth, in m, at which the pressure is calculated

Granular B backfill should meet OPSS 1010 Type I or Type II material specifications. The granular fill should be compacted to a minimum of 97 % of the material’s Standard Proctor Maximum Dry Density (herein “SPMDD”), or to the levels and backfilling procedures specified.

When above stabilized groundwater levels, it is recommended that permanent subsurface walls are damp proofed and should comply with OBC requirements. As a minimum it is recommended that the damp proofing system include a Delta Drainage Board or MiraDrain 2000 series product, or an approved alternative, along with an asphalt based spray-on wall coating.

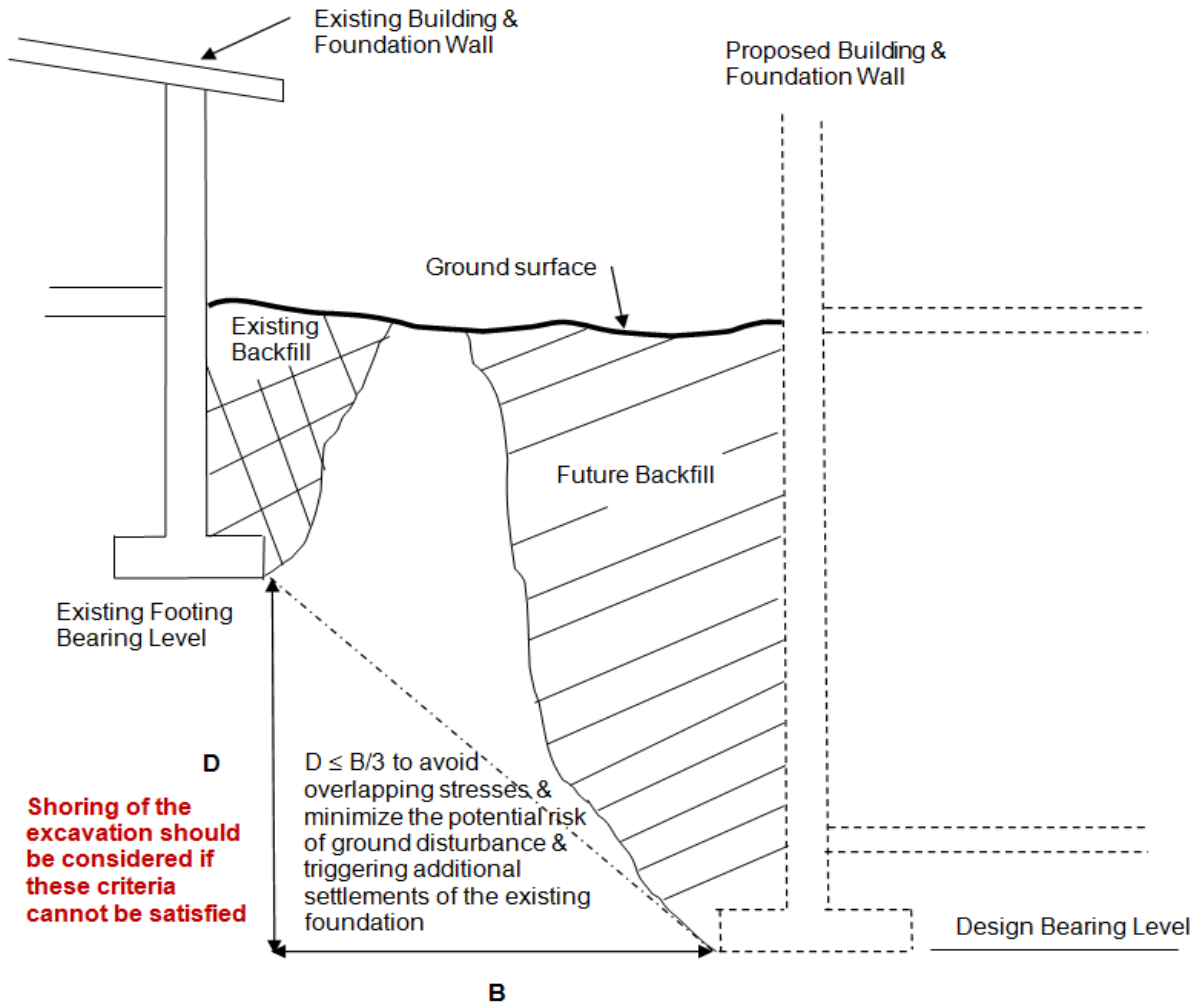
5.8 Excavation and Backfill Considerations

All temporary excavations and unbraced side slopes in the soils should conform to standards set out in the Occupational Health and Safety Act, Ontario Regulation 213/91 "*Construction Projects*" (herein "*OHS*A"). The generally compact silty sand and silt to be encountered during excavation at the site are expected to behave as Type "3" materials according to the OHS A classification in Part III.

Groundwater seepage was generally not observed during this investigation at depths where their presence would influence excavation or construction. It is expected that any groundwater seepage during service trench excavation work should be able to be controlled by pumping from sumps at the base of the excavation. Water seepage into open excavations is not expected to be such that the project would require either registration under the Environmental Activity and Sector Registry (herein "*EASR*") framework (i.e. exceeding 50,000 l/day but less than 400,000 l/day) or a Permit To Take Water (herein "*PTTW*") for amounts greater than 400,000 l/day.

It should be possible to excavate the overburden soils using a hydraulic backhoe. When excavating, consideration should be given to existing service trenches, backfill and foundations that may be present directly behind cut slopes within the native soils, particularly where they appear to be stable on first excavation. In these circumstances, excavations can suddenly slough or collapse.

In addition, the proximity of the development footprint to adjacent structures is very close. Consequently, any open excavations for proposed foundations should satisfy the criteria given in Figure 3 following to avoid overlapping stresses and minimize the risk of undermining existing adjacent foundations/utilities and/or triggering additional settlements of the existing foundations/utilities due to soil disturbance. Shoring will be required when constructing the new residential structure to ensure that undermining of the existing adjacent foundations is prevented. A specialist Shoring Contractor should be consulted to determine the most appropriate shoring type and installation methodology.



Example: If the separation between existing and new proposed footings is 2 m the difference in bearing elevation should not exceed 0.67 m.

Figure 3: Criteria for Assessing Excavation Shoring Requirements (Not to Scale).

6.0 CLOSURE

The Limitations of Report, as stated in Appendix A, are an integral part of this report.

Soil samples will be retained and stored by Landtek for a period of three months after the report is issued. The samples will be disposed of at the end of the three month period unless a written request from the client to extend the storage period is received.

We trust this report will be of assistance to the development and security of the site. Should you have any questions, please do not hesitate to contact our office.

Yours sincerely,

LANDTEK LIMITED



James Dann, B.Eng. (Hons.)
Manager, Geotechnical Projects



Ralph Di Cienzo P. Eng.
Consulting Engineer

APPENDIX A LIMITATIONS OF REPORT

The conclusions and recommendations given in this report are based on information determined at the borehole locations. Subsurface and ground water conditions between and beyond the Boreholes may be different from those encountered at the borehole locations, and conditions may become apparent during construction that could not be detected or anticipated at the time of the geotechnical investigation. It is recommended practice that Landtek be retained during construction to confirm that the subsurface conditions throughout the site are consistent with the conditions encountered in the boreholes.

The comments made in this report on potential construction problems and possible remedial methods are intended only for the guidance of the designer. The number of Boreholes may not be sufficient to determine all the factors that may influence construction methods and costs. For example, the thickness and quality of surficial topsoil or fill layers may vary markedly and unpredictably. Additionally, bedrock contact depths throughout the site may vary significantly from what was encountered at the exact borehole locations. Contractors bidding on the project, or undertaking construction on the site should make their own interpretation of the factual borehole information, and establish their own conclusions as to how the subsurface conditions may affect their work.

The survey elevations in the report were obtained by Landtek Limited or others, and are strictly for use by Landtek in the preparation of the geotechnical report. The elevations should not be used by any other parties for any other purpose.

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. Landtek Limited accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken based on this report.

This report does not reflect environmental issues or concerns related to the property unless otherwise stated in the report. The design recommendations given in the report are applicable only to the project described in the text and then only if constructed substantially in accordance with the details stated in this report. Since all details of the design may not be known, it is recommended that Landtek Limited be retained during the final design stage to verify that the design is consistent with the report recommendations, and that the assumptions made in the report are still valid.

APPENDIX B
SITE AND SLOPE PHOTOGRAPHS



Photograph 1: General view of slope face, vegetation cover lower deck, looking north.



Photograph 2: General view of the lower slope and toe area, looking west.



LANDTEK LIMITED

Project No.: 17427

Date: June 2018

Geotechnical Investigation

455 and 457 Bay Street North, Hamilton, Ontario

Reference:

Photographs 1 and 2

APPENDIX C
SLOPE STABILITY RATING REPORTS

TABLE 4.2 - SLOPE STABILITY RATING CHART

Site Location: 455-457 Bay Street North File No. 17427
 Property Owner: Mr. Neil A. Pirie Inspection Date: October 16, 2017
 Inspected By: Mr. James Dann Weather: Clear skies, cool

1. SLOPE INCLINATION

degrees	horiz. : vert.	
a) 18 or less	3 : 1 or flatter	0
b) 18 - 26	2 : 1 to more than 3 : 1	6
c) more than 26	steeper than 2 : 1	16

2. SOIL STRATIGRAPHY

a) Shale, Limestone, Granite (Bedrock)	0
b) Sand, Gravel	6
c) Glacial Till	9
d) Clay, Silt	12
e) Fill	16
f) Leda Clay	24

3. SEEPAGE FROM SLOPE FACE

a) None or Near bottom only	0
b) Near mid-slope only	6
c) Near crest only or, From several levels	12

4. SLOPE HEIGHT

a) 2 m or less	0
b) 2.1 to 5 m	2
c) 5.1 to 10 m	4
d) more than 10 m	8

5. VEGETATION COVER ON SLOPE FACE

a) Well vegetated; heavy shrubs or forested with mature trees	0
b) Light vegetation; Mostly grass, weeds, occasional trees, shrubs	4
c) No vegetation, bare	8

6. TABLE LAND DRAINAGE

a) Table land flat, no apparent drainage over slope	0
b) Minor drainage over slope, no active erosion	2
c) Drainage over slope, active erosion, gullies	4

7. PROXIMITY OF WATERCOURSE TO SLOPE TOE

a) 15 metres or more from slope toe	0
b) Less than 15 metres from slope toe	6

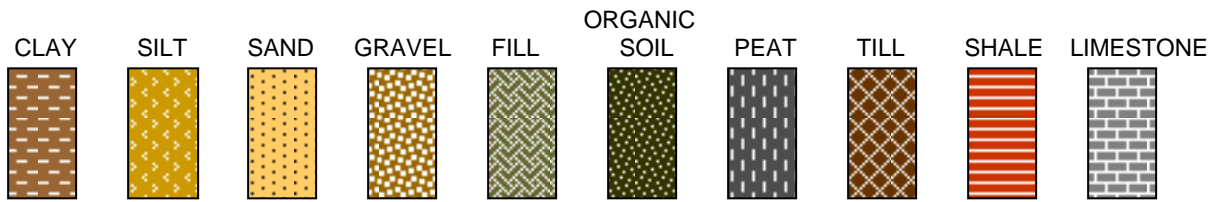
8. PREVIOUS LANDSLIDE ACTIVITY

a) No	0
b) Yes	6

9. SLOPE STABILITY RATING**TOTAL 22**

Rating of ≤ 24	Stable Slope with no toe erosion; no evidence of past instability; & no structures within slope height of crest.
Rating of 25 – 35	Potential for instability; site should be investigated by visual inspection; no boreholes required; detailed engineering assessment of slope should include documented slope geometry & subsurface conditions based on background data review.
Rating > 35	Moderate Potential for instability; Detailed investigation required with boreholes, topographic survey & stability analysis

**APPENDIX D
SYMBOLS AND TERMS USED IN THE REPORT**



RELATIVE PROPORTIONS		CLASSIFICATION BY PARTICLE SIZE	
Term	Range		
Trace	0 - 5%	Boulder -----	> 200 mm
A Little	5 – 15%	Cobble -----	80 mm – 200 mm
Some	15 – 30%	Gravel -	
With	30 – 50%	Coarse -----	19 mm – 80 mm
		Fine -----	4.75 mm – 19 mm
		Sand -	
		Coarse -----	4.75 mm – 2 mm
		Medium -----	2 mm – 0.425 mm
		Fine -----	0.425 mm – 0.75 mm
		Silt -----	0.075 mm – 0.002 mm
		Clay -----	< 0.002 mm

DENSITY OF NON-COHESIVE SOILS

Descriptive Term	Relative Density	Standard Penetration Test
Very Loose	0 – 15%	0 – 4 Blows Per 300 mm Penetration
Loose	15 – 35%	4 – 10 Blows Per 300 mm Penetration
Compact	35 – 65%	10 – 30 Blows Per 300 mm Penetration
Dense	65 – 85%	30 – 50 Blows Per 300 mm Penetration
Very Dense	85 – 100%	Over 50 Blows Per 300 mm Penetration

CONSISTENCY OF COHESIVE SOILS

Descriptive Term	Undrained Shear Strength kPa (psf)	N Value Standard Penetration Test	Remarks
Very Soft	< 12 (< 250)	< 2	Can penetrate with fist
Soft	12 – 25 (250 – 500)	2 – 4	Can indent with fist
Firm	25 – 50 (500 – 1000)	4 – 8	Can penetrate with thumb
Stiff	50 – 100 (1000 – 2000)	8 – 15	Can indent with thumb
Very Stiff	100 – 200 (2000 – 4000)	15 – 30	Can indent with thumb-nail
Hard	> 200 (> 4000)	> 30	Can indent with thumb-nail

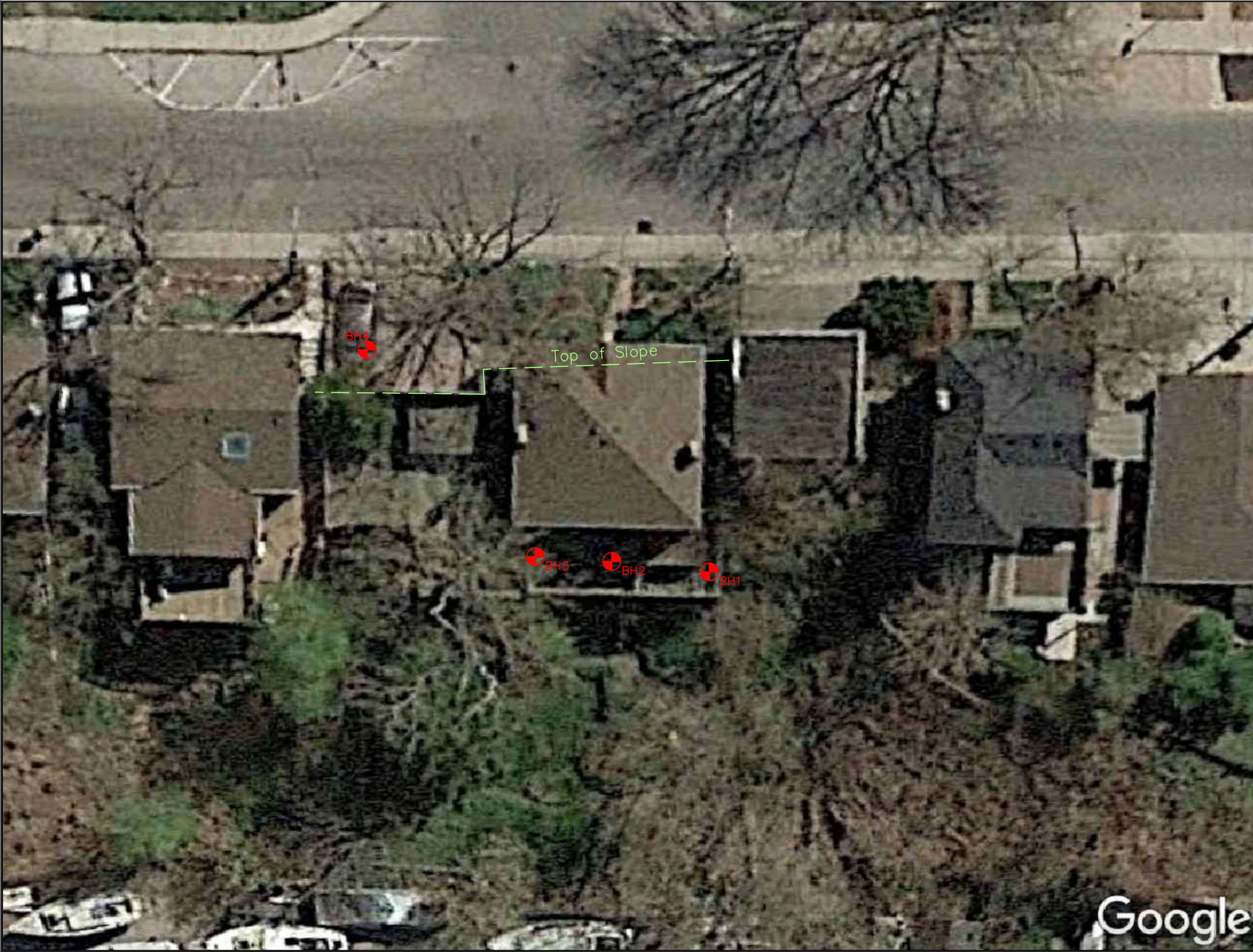
Notes: 1. Relative density determined by standard laboratory tests.
2. N value – blows/300 mm penetration of a 623 N (140 Lb.) hammer falling 760 mm (30 in.) on a 50 mm O.D. split spoon soil sampler. The split spoon sampler is driven 450 mm (18 in.) or 610 mm (24 in.). The “N” value is the Standard Penetration Test (SPT) value and is normally taken as the number of blows to advance the sampler the last 300 mm.

APPENDIX D CONTINUED
CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES
ASTM Designation: D 2487 - 69 AND D 2488 - 69
(Unified Soil Classification System)

Major Divisions		Group Symbols	Typical Names	Classification Criteria					
Coarse-grained soils More than 50% retained on No. 200 sieve *	Gravels 50% or more of coarse fraction retained on No. 4 sieve	Clean gravels	GW	Well-graded gravels and gravel-sand mixtures, little or no fines	Classification on basis of percentage of fines Less than 5% pass No. 200 sieve GW, GP, SW, SP	$C_u = D_{60}/D_{10}$ greater than 4; $C_z = (D_{30})^2 / (D_{10} \times D_{60})$ between 1 and 3			
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines		Not meeting both criteria for GW			
		Gravels with fines	GM	Silty gravels, gravel-sand-silt mixtures		Atterberg limits below "A" line or P.I. less than 4	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols		
			GC	Clayey gravels, gravel-sand-clay mixtures		Atterberg limits above "A" line with P.I. greater than 7			
	Sands More than 50% of coarse fraction passes No. 4 sieve	Clean Sands	SW	Well-graded sands and gravelly sands, little or no fines	More than 12% pass No. 200 sieve GM, GC, SM, SC 5 to 12% pass No. 200 sieve Borderline classifications requiring use of dual symbols	$C_u = D_{60}/D_{10}$ greater than 6; $C_z = (D_{30})^2 / (D_{10} \times D_{60})$ between 1 and 3			
			SP	Poorly graded sands and gravelly sands, little or no fines		Not meeting both criteria for SW			
		Sands with fines	SM	Silty sands, sand-silt mixtures		Atterberg limits below "A" line or P.I. less than 4	Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols		
			SC	Clayey sands, sand-clay mixtures		Atterberg limits above "A" line with P.I. greater than 7			
Fine-grained soils 50% or more passes No. 200 sieve *	Silts and clays Liquid limit 50% or less	ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands	Plasticity Chart For classification of fine-grained soils and fine fraction of coarse-grained soils. Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols. Equation of A-line: $PI = 0.73 (LL - 20)$					
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silts						
		OL	Organic silts and organic silts of low plasticity						
	Silts and clays Liquid limit greater than 50%	MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts						
		CH	Inorganic clays of high plasticity, fat clays						
		OH	Organic clays of medium to high plasticity						
	Highly organic soils	Pt	Peat, much and other highly organic soils	* Based on the material passing the 3 in. (76mm) sieve.					



APPENDIX E
DRAWING 1 - BOREHOLE LOCATION PLAN
BOREHOLE LOGS



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project location



revisions/ submissions

#	date	description
1	2018-06-29	issued for draft report

client

Mr. Neil A. Pirie

municipality

The Corporation of the
 City of Hamilton

project

Geotechnical Investigation
 455 and 457 Bay St. North

sheet

Borehole Location Plan

date: June 28, 2018

drawn: IA

checked: JAD

project #: 17427

17427-01

FILE:M:ENGINEERING:2017:17427-455 & 457 Bay Street North-Slope:Drawings:17427_455-457BayStreetNorth_Geotech.dwg 1.AYOUT:BH Plan
 LAST SAVED BY:James, June-29-18 6:56:31 PM PLOTTED BY:James June-29-18 6:56:38 PM

Project No.: 17427	Drill Date: December 1, 2017
Project: Geotechnical Investigation Report	Drill Method: [] solid stem [] hollow stem [X] hand-held
Location: 455 & 457 Bay Street North, Hamilton, Ontario	Datum: Geodetic (GPS)


Material Description	Symbol	Elev. Depth	Samples		SPT "N" Value Scale (m)	Soil Moisture (%)			GWL	Monitor Details	Test Data	
			No.	Type		0	25	50				
Ground Surface		82.7			0	25	50					
±150 mm topsoil		0.0			0.0							
SILT trace to some clay , trace sand, brown, soft, wet to damp ...stiff below approximately 1.5 m depth	+		1	SS	-0.5			♦ 23				
			2	SS	-1.0			♦ 28				
			3	SS	-1.5				♦ 24			
			4	SS	-2.0				♦ 19			
END OF BOREHOLE AT TARGET DEPTH		2.5			-2.5							
					-3.0							
					-3.5							
					-4.0							
					-4.5							
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				-13.5								
				-14.0								

Notes:
 1. On completion, borehole open to 2.5 m.
 2. No groundwater encountered.

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PP = pocket penetrometer TCV = total combustible vapour BRD = bulk relative density
 PL = plastic limit LL = liquid limit PI = plasticity index FV = field vane LV = lab vane VS = vane sensitivity

Project No.: 17427	Drill Date: December 1, 2017
Project: Geotechnical Investigation Report	Drill Method: [] solid stem [] hollow stem [X] hand-held
Location: 455 & 457 Bay Street North, Hamilton, Ontario	Datum: Geodetic (GPS)

Material Description	Symbol	Elev. Depth	Samples		SPT "N" Value Scale (m)	Soil Moisture (%)			GWL	Monitor Details	Test Data	
			No.	Type		0	25	50				
Ground Surface		82.7			0	25	50					
±150 mm topsoil		0.0			0.0							
SILT trace to some clay , trace sand, brown, very soft, wet to damp ...stiff below approximately 2.0 m depth			1	SS	-0.5			27				
			2	SS	-1.0			28				
			3	SS	-1.5				28			
			4	SS	-2.0				27			
END OF BOREHOLE AT TARGET DEPTH		2.5			-2.5							
					-3.0							
					-3.5							
					-4.0							
					-4.5							
					-5.0							
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					-13.0							
					-13.5							
					-14.0							

Notes:
 1. On completion, borehole open to 2.5 m.
 2. No groundwater encountered.

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 PL = plastic limit LL = liquid limit PI = plasticity index FV = field vane LV = lab vane VS = vane sensitivity

Project No.: 17427	Drill Date: December 1, 2017
Project: Geotechnical Investigation Report	Drill Method: [] solid stem [] hollow stem [X] hand-held
Location: 455 & 457 Bay Street North, Hamilton, Ontario	Datum: Geodetic (GPS)

Material Description	Symbol	Elev. Depth	Samples		SPT "N" Value Scale (m)	Soil Moisture (%)			GWL	Monitor Details	Test Data
			No.	Type		0	25	50			
Ground Surface		82.7			0	25	50				
±150 mm topsoil		0.0			0.0						
SILT trace to some clay , trace sand, brown, very soft, wet ...stiff below approximately 2.0 m depth			1	SS	-0.5			25			
			2	SS	-1.0			24			
			3	SS	-1.5			24			
			4	SS	-2.0			20			
END OF BOREHOLE AT TARGET DEPTH		2.5			-2.5						
					-3.0						
					-3.5						
					-4.0						
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			-12.5								
			-13.0								
			-13.5								
			-14.0								

Notes:
 1. On completion, borehole open to 2.5 m.
 2. No groundwater encountered.

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 PL = plastic limit LL = liquid limit PI = plasticity index FV = field vane LV = lab vane VS = vane sensitivity

Project No.: 17427	Drill Date: November 30, 2017
Project: Geotechnical Investigation Report	Drill Method: [] solid stem [x] hollow stem [] vibratory
Location: 455 & 457 Bay Street North, Hamilton, Ontario	Datum: Geodetic (GPS)

Material Description	Symbol	Elev.	Samples		SPT "N" Value	Soil Moisture (%)	GWL	Monitor Details	Test Data
			Depth	No.					
Ground Surface		88.6							
±80 mm interlock pavement		0.0							
FILL sand, trace silt, trace wood fragments, brown, damp			1	SS	9	5			
			2	SS	5	5			
SILTY SAND trace clay, trace gravel, brown/grey, compact to dense, damp, fine to medium grained			3	SS	12	5			
			4	SS	14	5			
			5	SS	21	5			
			6	SS	30	8			
...compact, wet below approximately 6.2 m depth			7	SS	26	26			
		81.0							
SILT trace clay, trace sand, grey, compact to dense, moist		7.6	8	SS	23	20			
...trace sand partings below approximately 9.0 m depth			9	SS	19	15			
			10	SS	36	14			
...some clay below approximately 10.7 m depth			11	SS	37	18			
		75.8							
END OF BOREHOLE AT TARGET DEPTH		12.8							

Notes:
 1. On completion, borehole open to 12.5 m.
 2. Groundwater at approximately 9.8 m depth on completion


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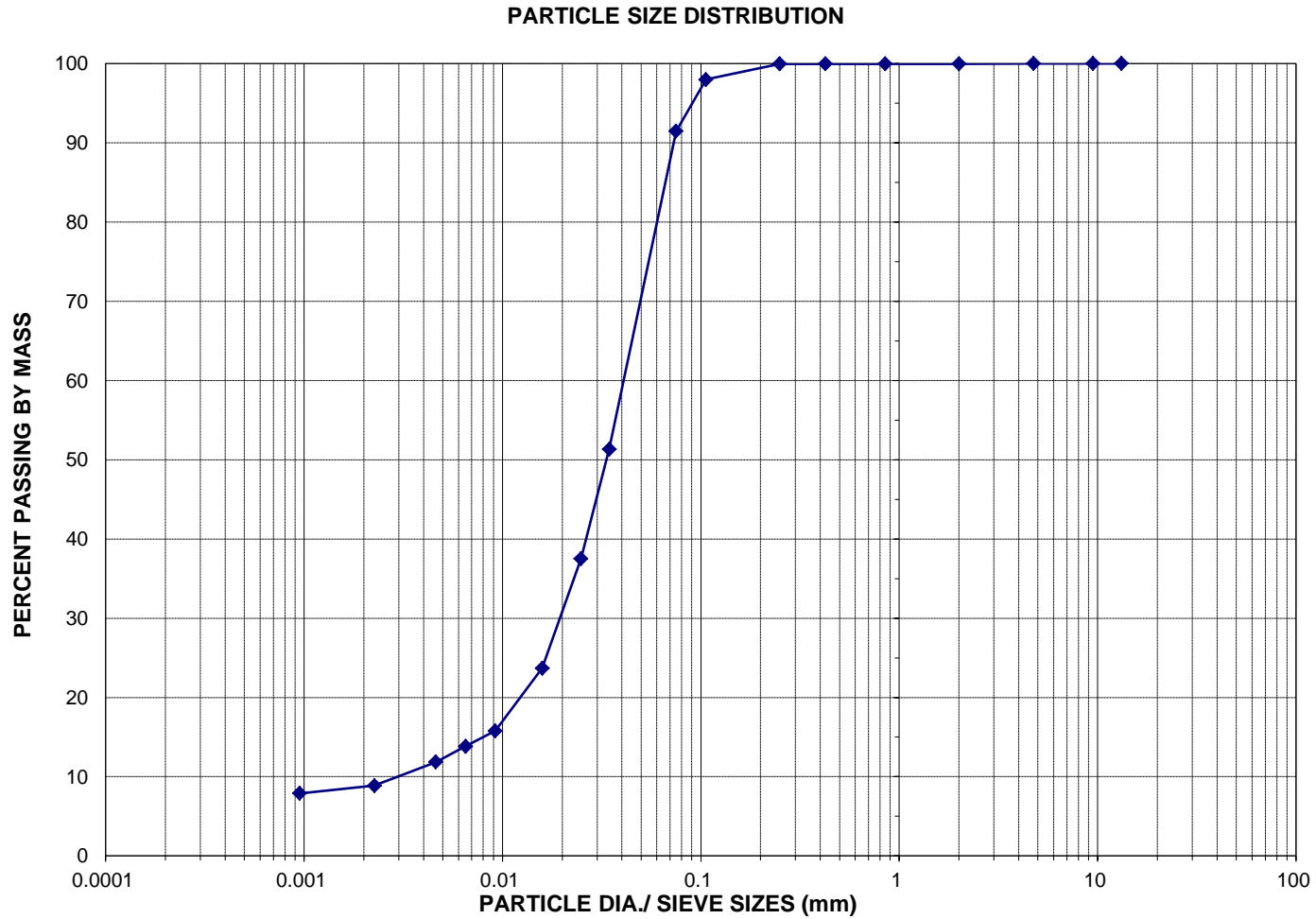
PP = pocket penetrometer TCV = total combustible vapour BRD = bulk relative density
 PL = plastic limit LL = liquid limit PI = plasticity index FV = field vane LV = lab vane VS = vane sensitivity

APPENDIX F
GEOTECHNICAL LABORATORY TESTING RESULTS



PROJECT: Slope Stability Analysis
 LOCATION: 455 & 457 Bay Street North, Hamilton, Ontario
 CLIENT : Mr. Neil A Pirie
 SOIL TYPE: Silt (ML)
 SOURCE: On Site

FILE NO.: 17427
 LAB SAMPLE NO.: BH1-SS3
 SAMPLE DATE: November 30, 2017
 SAMPLED BY: I.A.



	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	COARSE
CLAY	SILT			SAND			GRAVEL	

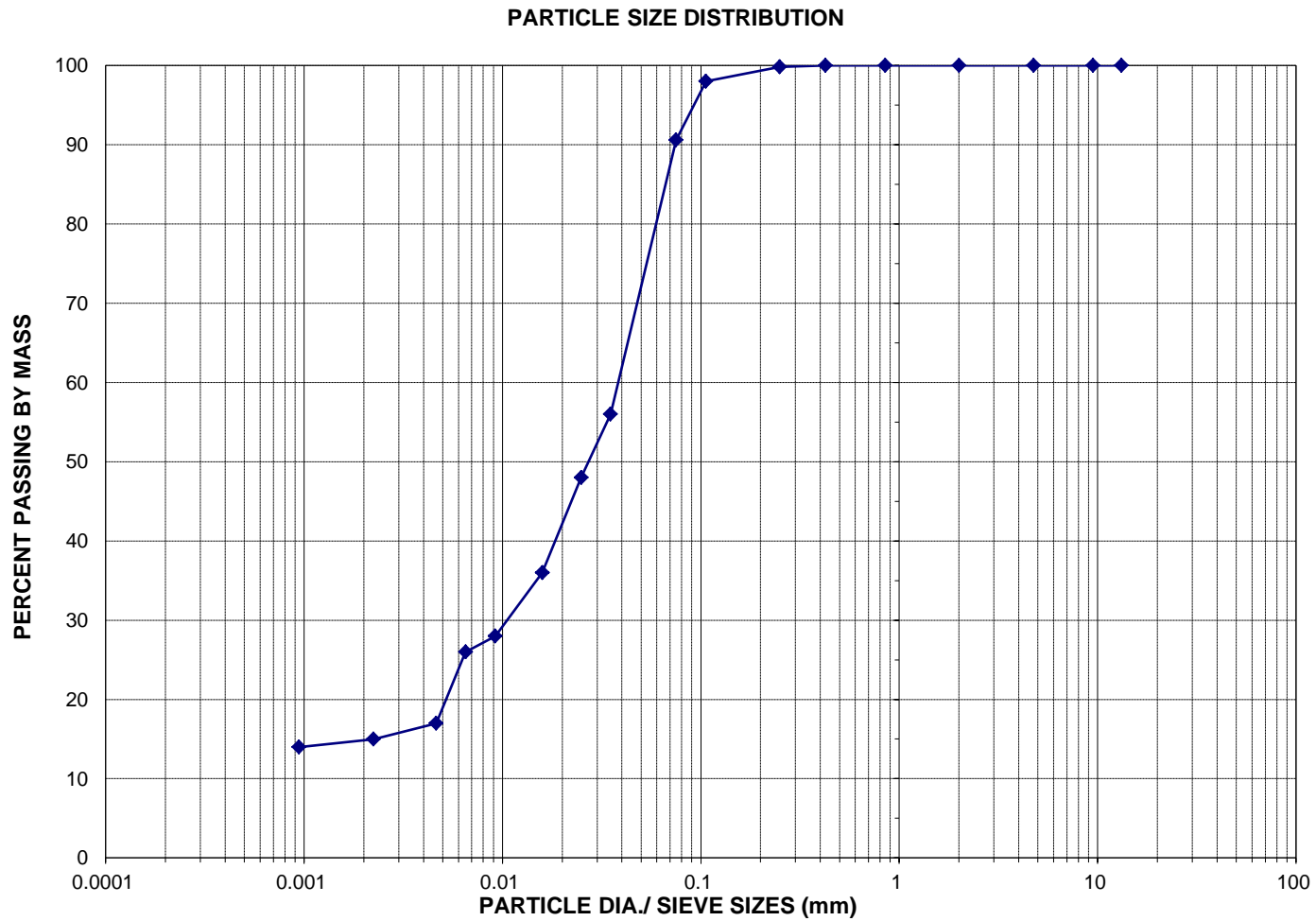
SIEVE SIZE /PARTICLE DIA. (mm)	PERCENT PASSING		COMMENTS
	SAMPLE		
13.2	100.0		
9.5	100.0		
4.75	100.0		
2.0	99.9		
0.850	99.9		
0.425	99.9		
0.250	99.9		
0.106	98.0		
0.075	91.5		
0.0345	51.3		
0.0249	37.5		
0.0159	23.7		
0.0092	15.8		
0.0065	13.8		
0.0046	11.8		
0.0023	8.9		
0.0009	7.9		
			0.0% Gravel 8.5% Sand 82.6% Silt 8.9% Clay





PROJECT: Slope Stability Analysis
 LOCATION: 455 & 457 Bay Street North, Hamilton, Ontario
 CLIENT : Mr. Neil A Pirie
 SOIL TYPE: Silt (ML)
 SOURCE: On Site

FILE NO.: 17427
 LAB SAMPLE NO.: BH3-SS4
 SAMPLE DATE: November 30, 2017
 SAMPLED BY: I.A.



	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	COARSE
CLAY	SILT			SAND			GRAVEL	

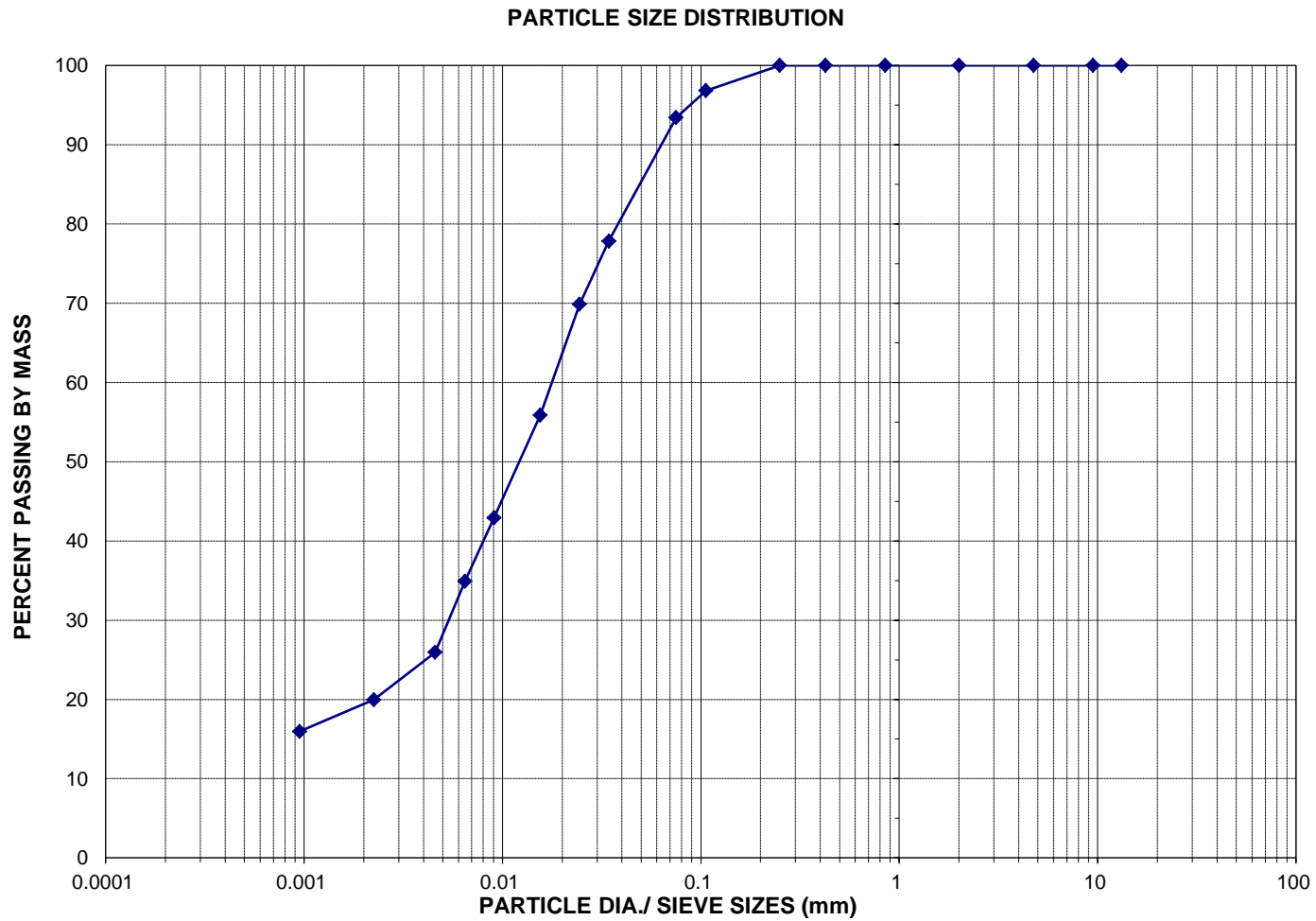
SIEVE SIZE /PARTICLE DIA. (mm)	PERCENT PASSING		COMMENTS
	SAMPLE		
13.2	100.0		0.0% Gravel 9.4% Sand 75.6% Silt 15% Clay
9.5	100.0		
4.75	100.0		
2.0	100.0		
0.850	100.0		
0.425	100.0		
0.250	99.8		
0.106	98.0		
0.075	90.6		
0.0351	56.0		
0.0249	48.0		
0.0159	36.0		
0.0092	28.0		
0.0065	26.0		
0.0046	17.0		
0.0022	15.0		
0.0009	14.0		





PROJECT: Slope Stability Analysis
 LOCATION: 455 & 457 Bay Street North, Hamilton, Ontario
 CLIENT : Mr. Neil A Pirie
 SOIL TYPE: Silt (ML)
 SOURCE: On Site

FILE NO.: 17427
 LAB SAMPLE NO.: BH4-SS10
 SAMPLE DATE: November 30, 2017
 SAMPLED BY: I.A.



	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	COARSE
CLAY	SILT			SAND			GRAVEL	

SIEVE SIZE /PARTICLE DIA. (mm)	PERCENT PASSING		COMMENTS
	SAMPLE		
13.2	100.0		
9.5	100.0		
4.75	100.0		
2.0	100.0		
0.850	100.0		
0.425	100.0		
0.250	100.0		
0.106	96.8		
0.075	93.4		
0.0344	77.8		
0.0245	69.9		
0.0155	55.9		
0.0091	42.9		
0.0065	34.9		
0.0046	25.9		
0.0023	20.0		
0.0010	16.0		
			0.0% Gravel 6.6% Sand 73.4% Silt 20% Clay

