Appendix F Stage 2 Acceptance Letter and Stage 2 Archaeological Assessment

DRAFT

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Ontario

Jun 7, 2021

Parker S. Dickson (P256)
Stantec Consulting
171 Queens London ON N6A 5J7

RE: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 2 Archaeological Assessment: Kirkwall – Hamilton Pipeline Project, Parts of Various Lots and Concessions, Geographic Townships of Beverly, West Flamborough, and East Flamborough, former Wentworth County, now City of Hamilton, Ontario", Dated Mar 30, 2021, Filed with MHSTCI Toronto Office on Apr 7, 2021, MHSTCI Project Information Form Number P256-0616-2020, MHSTCI File Number 0010304

Dear Mr. Dickson:

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18.[1] This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 *Standards and Guidelines for Consultant Archaeologists* set by the ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment of the study area as depicted in Figures 6.1 to 6.8 and of the above titled report and Figures 1.1 to 1.8 of the Supplementary Documentation, and recommends the following:

5.1 LOCATION 1
Location 1 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 1 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 1.

5.2 LOCATION 2
Location 2 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 2 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 2.

5.3 LOCATION 3
Location 3 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 3 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 3.

5.4 LOCATION 4
Location 4 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 4 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 4.

5.5 LOCATION 5
Location 5 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 5 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 5.

5.6 LOCATION 6
Location 6 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 6 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 6.

5.7 LOCATION 7
Location 7 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 7 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 7.

5.8 LOCATION 8
Location 8 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 8 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 8.

5.9 LOCATION 9
Location 9 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 9 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 9.

5.10 LOCATION 10
Location 10 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 10 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 10.

5.11 LOCATION 11
Location 11 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 11 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 11.

5.12 LOCATION 12 (AiHa-60)

Location 12 (AiHa-60) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(2) and Section 2.2 Guideline 2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). Therefore, Stage 3 archaeological assessment is recommended for Location 12 (AiHa-60) to further evaluate the site's cultural heritage value or interest.

The Stage 3 archaeological assessment of Location 12 (AiHa-60) will be conducted according to the procedures outlined in the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A controlled surface pickup (CSP) is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimeter mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.13 LOCATION 13 (AiHa-61)

Location 13 (AiHa-61) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(2) of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). Therefore, Stage 3 archaeological assessment is recommended for Location 13 (AiHa-61) to further evaluate the site's cultural heritage value or interest.

The Stage 3 archaeological assessment of Location 13 (AiHa-61) will be conducted according to the procedures outlined in the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A CSP is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit. Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.14 LOCATION 14

Location 14 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 14 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 14.

5.15 LOCATION 15

Location 15 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 15 has been sufficiently documented. Therefore, no

further archaeological assessment is recommended for Location 15.

5.16 LOCATION 16
Location 16 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 16 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 16.

5.17 LOCATION 17
Location 17 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 17 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 17.

5.18 LOCATION 18
Location 18 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 18 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 18.

5.19 LOCATION 19
Location 19 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 19 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 19.

5.20 LOCATION 20 (AiHa-62)
Location 20 (AiHa-62) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(1) and Standard 1.b.iii of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). Therefore, Stage 3 archaeological assessment is recommended for Location 20 (AiHa-62) to further evaluate the site's cultural heritage value or interest.

The Stage 3 archaeological assessment of Location 20 (AiHa-62) will be conducted according to the procedures outlined in the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A CSP is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. As the site includes an Early Archaic component, a sample of the soil from the test units will be screened through three millimeter mesh in accordance with Section 3.2.2 Standard 7 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.21 LOCATION 21 (AiHa-63)
Location 21 (AiHa-63) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.b.i of the MHSTCI's 2011 Standards and

Guidelines for Consultant Archaeologists (Government of Ontario 2011). Therefore, Stage 3 archaeological assessment is recommended for Location 21 (AiHa-63) to further evaluate the site's cultural heritage value or interest.

The Stage 3 archaeological assessment of Location 21 (AiHa-63) will be conducted according to the procedures outlined in the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A CSP is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.22 LOCATION 22

Location 22 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 22 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 22.

5.23 LOCATION 23

Location 23 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 23 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 23.

5.24 LOCATION 24

Location 24 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 24 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 24.

5.25 LOCATION 25

Location 25 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 25 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 25.

5.26 LOCATION 26 (AiHa-64)

Location 26 (AiHa-64) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.b.i of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). Therefore, Stage 3 archaeological assessment is recommended for Location 26 (AiHa-64) to further evaluate the site's cultural heritage value or interest.

The Stage 3 archaeological assessment of Location 26 (AiHa-64) will be conducted according to the procedures outlined in the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of

one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A CSP is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.27 LOCATION 27

Location 27 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 27 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 27.

5.28 LOCATION 28 (AiHa-65)

Location 28 (AiHa-65) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(2) and Section 2.2 Guideline 2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). Therefore, Stage 3 archaeological assessment is recommended for Location 28 (AiHa-65) to further evaluate the site's cultural heritage value or interest.

The Stage 3 archaeological assessment of Location 28 (AiHa-65) will be conducted according to the procedures outlined in the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A CSP is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.29 LOCATION 29

Location 29 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 29 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 29.

5.30 LOCATION 30

Location 30 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 30 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 30.

5.31 LOCATION 31 (AiHa-66)
Location 31 (AiHa-66) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(2) of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). Therefore, Stage 3 archaeological assessment is recommended for Location 31 (AiHa-66) to further evaluate the site's cultural heritage value or interest.

The Stage 3 archaeological assessment of Location 31 (AiHa-66) will be conducted according to the procedures outlined in the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A CSP is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.32 LOCATION 32
Location 32 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 32 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 32.

5.33 LOCATION 33
Location 33 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 33 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 33.

5.34 LOCATION 34
Location 34 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The cultural heritage value or interest of Location 34 has been sufficiently documented. Therefore, no further archaeological assessment is recommended for Location 34.

5.35 ADDITIONAL STAGE 2 ASSESSMENT
Approximately 4.9% of the study area comprises lands that were not surveyed during the Stage 2 assessment and which retain potential for the identification and documentation of archaeological resources. In accordance with Section 1.3.1 and Section 7.7.4 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011), Stage 2 archaeological assessment is required for any portion of the Project's anticipated construction activities which impacts an area of archaeological potential (Figure 6).

The objective of the Stage 2 archaeological assessment will be to document any archaeological resources within the study area and to determine whether these archaeological resources require further assessment. The Stage 2 archaeological assessment will include the systematic walking of open ploughed fields as outlined in Section 2.1.1 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists

(Government of Ontario 2011). The MHSTCI standards further require that agricultural land, both active and inactive, be recently ploughed and sufficiently weathered to improve the visibility of archaeological resources. Ploughing must be deep enough to provide total topsoil exposure, but not deeper than previous ploughing, and must provide at least 80% ground surface visibility.

Moreover, for areas inaccessible for ploughing, the Stage 2 archaeological assessment will include a test pit survey as outlined in Section 2.1.2 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011). The MHSTCI standards require that each test pit be at least 30 centimetres in diameter, excavated to at least five centimetres into subsoil, and have all soil screened through six millimetre hardware cloth to facilitate the recovery of any cultural material that may be present. Prior to backfilling, each test pit will be examined for stratigraphy, cultural features, and evidence of fill.

If the archaeological field team determines any lands to be low and wet, steeply sloped, or disturbed during the course of the Stage 2 field work, those areas will not require survey, but will be photographically documented in accordance with Section 2.1 of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2011).

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for the archaeological assessment are consistent with the ministry's 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licences. This report has been entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Zeeshan Abedin
Archaeology Review Officer

cc. Archaeology Licensing Officer
Norm Dumouchelle,Enbridge Gas Inc.
Zora Crnojacki,Ontario Energy Board

[1] *In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.*

Stage 2 Archaeological Assessment: Kirkwall – Hamilton Pipeline Project

Parts of Various Lots and Concessions, Geographic Townships of Beverly, West Flamborough, and East Flamborough, former Wentworth County, now City of Hamilton, Ontario

March 30, 2021

Prepared for:

Enbridge Gas Inc.
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Licensee: Parker Dickson, MA
Licence Number: P256
PIF Number: P256-0616-2020
Project Number: 160961299

REVISED REPORT

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Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by Enbridge Gas Inc. (Enbridge) to complete the Stage 2 archaeological assessment for the Kirkwall – Hamilton Pipeline Project (the Project). The study area for the Stage 2 assessment of the Project comprises approximately 77.6 hectares of various lots and concessions, Geographic Townships of Beverly, West Flamborough, and East Flamborough, former Wentworth County, now City of Hamilton, Ontario. The Stage 2 archaeological assessment was conducted during the preliminary planning phase of the Project in accordance with the provisions of the *Ontario Heritage Act* (Government of Ontario 1990a) and the requirements of Section 4.3.4 of the Ontario Energy Board's (OEB) *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition* (OEB 2016).

The Stage 2 archaeological assessment of the study area for the Project was conducted between May 8, 2020 and November 20, 2020 under Project Information Form number P256-0616-2020 issued to Parker Dickson, MA, of Stantec by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI). During the Stage 2 survey, 34 archaeological locations were identified.

Locations 1 to 11, 14 to 19, 22 to 25, 27, 29, 30, and 32 to 34 do not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of these sites has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Locations 1 to 11, 14 to 19, 22 to 25, 27, 29, 30, and 32 to 34.**

Location 12 (AiHa-60), Location 13 (AiHa-61), Location 20 (AiHa-62), Location 21 (AiHa-63), Location 26 (AiHa-64), Location 28 (AiHa-65), and Location 31 (AiHa-66) retain further cultural heritage value or interest and fulfill the criteria for Stage 3 archaeological assessment as per various standards within Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Therefore, **Stage 3 archaeological assessment is recommended for Location 12 (AiHa-60), Location 13 (AiHa-61), Location 20 (AiHa-62), Location 21 (AiHa-63), Location 26 (AiHa-64), Location 28 (AiHa-65), and Location 31 (AiHa-66) to further evaluate each site's cultural heritage value or interest.**

In addition to the above, a portion of the study area (approximately 4.9%) comprises lands that were not surveyed during the Stage 2 assessment and which retain potential for the identification and documentation of archaeological resources. Thus, in accordance with Section 1.3.1 and Section 7.7.4 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), **Stage 2 archaeological assessment is required for any portion of the Project's anticipated construction activities which impacts an area of archaeological potential.** Full and detailed recommendations are provided in the body of the report.



The MHSTCI is asked to review the results presented and to accept this report into the *Ontario Public Register of Archaeological Reports*.

The Executive Summary highlights key points from the report only; for complete information and findings, the reader should examine the complete report.

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1.0 PROJECT CONTEXT

1.1 DEVELOPMENT CONTEXT

Stantec Consulting Ltd. (Stantec) was retained by Enbridge Gas Inc. (Enbridge) to complete the Stage 2 archaeological assessment for the Kirkwall – Hamilton Pipeline Project (the Project). The study area for the Stage 2 assessment of the Project comprises approximately 77.6 hectares of various lots and concessions, Geographic Townships of Beverly, West Flamborough, and East Flamborough, former Wentworth County, now City of Hamilton, Ontario (Figure 1).

To increase existing capacity and accommodate additional demand for natural gas, Enbridge is proposing to construct a new 48-inch diameter natural gas pipeline. The proposed Project will be constructed between Enbridge's existing Kirkwall valve site, located northeast of the intersection of Safari Road and Valens Road, and Enbridge's existing Hamilton valve site, located east of Highway 6 and north of Carlisle Road, generally paralleling three existing Enbridge pipelines (Figure 2).

The Stage 2 archaeological assessment was conducted during the preliminary planning phase of the Project in accordance with the provisions of the *Ontario Heritage Act* (Government of Ontario 1990a) and the requirements of Section 4.3.4 of the Ontario Energy Board's (OEB) *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition* (OEB 2016).

1.1.1 Objectives

In compliance with the provincial standards and guidelines set out in the Ministry of Heritage, Sport, Tourism and Culture Industries' (MHSTCI) 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), the objectives of the Stage 2 archaeological assessment are as follows:

- To document archaeological resources within the study area;
- To determine whether the study area contains archaeological resources requiring further assessment; and
- To recommend appropriate Stage 3 assessment strategies for archaeological resources identified.

Permission to enter the study area and conduct the archaeological assessment was granted by Enbridge in consultation with individual property owners.

1.2 HISTORICAL CONTEXT

1.2.1 Post-contact Indigenous Resources

"Contact" is typically used as a chronological benchmark when discussing Indigenous archaeology in Canada and describes the contact between Indigenous and European cultures. The precise moment of contact is a constant matter of discussion. Contact in what is now the province of Ontario is broadly assigned to the 16th century (Loewen and Chapdelaine 2016).

The post-contact Indigenous occupation of southern Ontario was heavily influenced by the dispersal of various Iroquoian-speaking communities by the New York State Iroquois in the mid-17th century and the subsequent arrival of Algonkian speaking groups from northern Ontario at the beginning of the 18th century (Konrad 1981; Schmalz 1991). By 1690, Ojibwa speaking people had begun moving south into the lower Great Lakes basin. The Indigenous economy since the turn of the 18th century focused on fishing and the fur trade, supplemented by agriculture and hunting (Konrad 1981; Rogers 1978). Numerous Indigenous groups and communities are associated with the post-contact occupation of southern Ontario and the general area of the Project.

At the turn of the 17th century, the region of the study area was occupied by Iroquoian populations who are historically described as the *Neutre* (by the French) or the *Attiwandaron* (by the Huron-Wendat); their autonym is not conclusively known (Birch 2015). Claude Bernou's 1680 map indicates the then dispersed *Attiragenga* (near modern day Hamilton) and *Antouaronon* (west of the Grand River along the Lake Erie north shore) nations occupied the region of the study area (White 1978: Figure 2) and settlements dating to the 17th century have been identified in the Fairchild-Big Creeks, Upper Twenty Mile Creek, and Lower Grand River settlement clusters, near to the study area (Lennox and Fitzgerald 1990: Table 13.1). In 1649, the Seneca and the Mohawk led a campaign into southern Ontario and dispersed the Attiwandaron (Neutral) nations and the Seneca established dominance over the region (Heidenreich 1978; Konrad 1981).

By 1690, Ojibwa speaking people had begun moving south into the lower Great Lakes basin (Konrad 1981; Rogers 1978); particularly, the Mississauga nations gained dominance in the region. Mississauga oral traditions, as told by Chief Robert Paudash and recorded in 1905, indicate that after the Mississauga defeat of the Mohawk Nation the Mohawk retreated to their homeland south of Lake Ontario and a peace treaty was negotiated between those groups around 1695 (Paudash 1905). Upon the Mississaugas' return they decided to settle permanently in southern Ontario.

The Mississaugas settled and inhabited a large area at the western end of Lake Ontario throughout the 1700s and into the 1800s. Between 1695 and the mid-1820s the Mississaugas continued to follow a yearly cycle of resource harvest and movement throughout their southern Ontario territory (Praxis Research Associates n.d.). With the end of the American Revolutionary War in 1783, the Six Nations Iroquois returned to southern Ontario, when approximately 2,000 Iroquois were given land by the British for their loyalty during the war and to compensate for the land they had lost in their traditional homeland. The largest group settled in the Grand River valley near Brantford, Ontario, to become the Six Nations of the Grand River.

The expansion of the fur trade led to increased interaction between European and Indigenous people, and ultimately intermarriage between European men and Indigenous women. During the 18th century the progeny of these marriages began to no longer identify with either their paternal or maternal cultures, but instead as Métis. The ethnogenesis of the Métis progressed with the establishment of distinct Métis communities along the major waterways in the Great Lakes of Ontario. Métis communities were primarily focused around the upper Great Lakes and along Georgian Bay, however Métis people have historically lived throughout Ontario (Métis Nation of Ontario 2020; Stone and Chaput 1978:607-608).

The study area falls within the historical and traditional territory of a number of Indigenous communities, including, but not limited to, the Mississaugas of the Credit First Nation (Mississaugas of the New Credit First Nation n.d.), the Six Nations of the Grand River, and the Haudenosaunee Confederacy. Since contact with European explorers and immigrants and, later, with the establishment of provincial and federal governments (the Crown), the lands within Ontario and the Geographic Townships of Beverly, West Flamborough, and East Flamborough have been included in various treaties, land claims, and land cessions. Though not an exhaustive list, Morris (1943) provides a general outline of some of the treaties within the Province of Ontario from 1783 to 1923. While it is difficult to exactly delineate treaty boundaries today, an approximate outline of the treaty lands described by Morris is provided in Figure 3 (1943). According to Morris (1943), the study area is situated within the described limits of the 1792 indenture of the 1784 Between the Lakes Purchase between the English government (referred to as "the Crown") and the Mississaugas). This treaty:

> *...was made with the Mississa[ug]a Indians 7th December, 1792, though purchased as early as 1784. This purchase in 1784 was to procure for that part of the Six Nation Indians coming into Canada a permanent abode.*
>
> *The area included in this Treaty is, Lincoln County excepting Niagara Township; Saltfleet, Binbrook, Barton, Glanford and Ancaster Townships, in Wentworth County; Brantford, Onondaga, Tusc[a]r[o]ra, Oakland and Burford Townships in Brant County; East and West Oxford, North and South Norwich, and Dereham Townships in Oxford County; North Dorchester Township in Middlesex County; South Dorchester, Malahide and Bayham Township in Elgin County; all Norfolk and Haldimand Counties; Pelham, Wainfleet, Thorold, Cumberland and Humberstone Townships in Welland County ... .*
>
> (Morris 1943:17-18)

As demonstrated above, the nature of Indigenous settlement size, population distribution, and material culture shifted as European settlers encroached upon Indigenous territory. However, despite this shift, "written accounts of material life and livelihood, the correlation of historically recorded villages to their archaeological manifestations, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to…systems of ideology and thought" (Ferris 2009:114). As a result, Indigenous peoples of southern Ontario have left behind archaeological resources throughout the region which show continuity with past peoples, even if they have not been explicitly recorded in Euro-Canadian documentation.

1.2.2 Euro-Canadian Resources

At its inception, Upper Canada was only sparsely settled by Europeans and the land had not been officially surveyed to any great extent. Thus, there was an urgency, by the then Lieutenant Governor of Upper Canada John Graves Simcoe, to survey this new province in order to establish military roads and to prevent settlers from clearing and settling land not legally belonging to them. In 1791, the Provinces of Upper Canada and Lower Canada were created from the former Province of Quebec by an act of British Parliament (Craig 1963:17). At this time, Colonel John Graves Simcoe was appointed as the Lieutenant Governor of Upper Canada and was tasked with governing the new province, directing its settlement and

establishing a constitutional government modelled after that of Britain (Coyne 1895). The change was affected at the behest of United Empire Loyalists who wished to live under the British laws and customs they were familiar with in Great Britain and the former 13 Colonies (Craig 1963:10-11). John Graves Simcoe had ambitious plans to create a model British society in North America, stating a desire to "inculcate British customs, manners, and principles in the most trivial, as well as most serious matters" in Upper Canada (Craig 1963:21). In 1792, Simcoe divided Upper Canada into 19 counties consisting of previously-settled lands, new lands opened for settlement, and lands not yet acquired by Crown. These new counties stretched from Essex in the west to Glengarry in the east.

1.2.2.1 Wentworth County

In 1792, at Simcoe's behest, the Eighth Act of the Upper Canada Parliament divided the province into four districts: Eastern, Midland, Home, and Western (Kernighan 1875:iii). The four districts were subdivided into 19 counties. The future location of Wentworth County was in the Home District, and was in parts of Haldimand, Lincoln, and York Counties. In 1816, the Gore District was created from lands in the Home and Niagara Districts, and the County of Wentworth was formed (Archives of Ontario 2015). Wentworth County was named in honour of John Wentworth, Royal Governor of New Hampshire from 1766-1775, and later a Lieutenant Governor of Nova Scotia (Johnston 1967:3-4). In 1849, the District System was abolished (Archives of Ontario 2015), and the Counties of Halton and Wentworth formed a single municipality. In 1853, the two counties were separated. Wentworth County totaled 272,000 acres (110,074.5 hectares) and comprised the City of Hamilton, Town of Dundas, and the Townships of Beverly, Binbrook, Barton, Ancaster, Saltfleet, East and West Flamborough (alternatively spelled Flamboro), and the Township of Glanford, where the study area is located (Kernighan 1875:iii-iv).

Early 19th century communities in Wentworth County included Dundas, Ancaster, and Hamilton. The completion of the Burlington Bay Canal in 1832 (Craig 1963:158) and the opening of the Great Western Railway in 1853, led to Hamilton's ascent as the dominant settlement and place of trade in the county (Kernighan 1875:v). Hamilton developed into a major manufacturing centre of Ontario, while the rest of the county was primarily agricultural. Wentworth County was especially known for its orchards and vineyards and was an important part of the Niagara Fruit Belt (Johnston 1967:209). Other crops grown in Wentworth County included wheat, barley, and tobacco (Johnston 1967:205-206).

At the turn of the 20th century, Hamilton had a population of 50,000 (Johnston 1967:247). The widespread adoption of the automobile opened rural portions of Wentworth County to suburban development. As a result, the population of Wentworth's townships began to increase and the City of Hamilton annexed portions of Barton, Ancaster, and Saltfleet Townships. By the 1950s, the population of Wentworth not within the city of Hamilton was about 60,000 (Johnston 1967:288-289). The population of Hamilton had grown to nearly 300,000 by 1966 (Dominion Bureau of Statistics 1967:10-12). In 1973, Wentworth County was amalgamated into the new Regional Municipality of Hamilton-Wentworth, which was restructured into the single-tier City of Hamilton in 2001 (Archives of Ontario 2015).

1.2.2.2 Township of Beverly

Established in 1792, Beverly Township (alternatively spelled Beverley) took its name from the Town of Beverly, located in East Yorkshire, England. The first survey of the Township of Beverly was undertaken by Augustus Jones in 1794 and included Concessions 1 through 5. Large portions of the township were swampy and known as “Beverly Swamp”. The remaining concessions, 6 through 10, were initially surveyed in 1797 by John Stegman, but due to the challenging landscape and Beverly Swamp, the survey was completed again in 1832 by James Kirkpatrick (Collins 2001:7). The township was laid out in relation to the survey of the Governor’s Road (Dundas Street), also completed by Jones from 1793 to 1795.

The majority of European settlement occurred after James Kirkpatrick’s survey in 1832. The first settlers in the Township of Beverly were Jacob Cope and George Jones, who arrived following the survey (Page & Smith 1875:x). The majority of early landowners in the township were absentee owners, which included merchants and officeholders in York (now Toronto), Niagara, and Montreal (Collins 2001:7).

Settlement in the Township of Beverly occurred primarily at road intersections and was influenced by the establishment of mills and railway development. In the 1820s, Governor’s Road, south of the study area, was planked through the township, influencing the location of the settlements of Lynden and Copetown. The Dundas and Waterloo Road was opened in the township in the early 19th century and planked in 1837 between the Desjardins Canal to the Village of Waterloo to the northeast. The roadway, west of the study area, allowed for the settlement of Rockton, Romulus, and Sheffield (Collins 2001:8). By 1859, the Dumfries and Beverly Road was planked and connected to the Dundas and Waterloo Road from the adjacent Township of North Dumfries, in the County of Brant.

Settlement in the township was slow due to the challenging terrain composed of rock, swamps, and forests. The township remained an unbroken forest until 1810, when a portion of land was cleared near Sheffield (Cornell 1967:8). By 1820, the township had only a population of 81, with 1,883 acres of cultivated land, out of a total 70,200 acres (Page & Smith 1875:x). In the 1830s, settlers from the British Isles began to arrive in the township and impact the population growth. The first settlements in the northern portion of the township in relation to the study area occurred in 1832 with the first settlers being John and William McKnight. They were followed soon after by John Valens, and the Pentland and Macdonald families (Irwin & Co. 1883:37).

In the first few decades of the 19th century, the population grew steadily from 617 in 1824 to 2,382 in 1839. In 1837, the community of Kirkwall commenced to settle, with the majority of settlers being of Scottish decent. After 1840, the settlement of the township grew quickly and by 1850 there was very little unclaimed land (Page & Smith 1875:X). In 1846, the township had 52,159 acres taken up, with 16,332 under cultivation. William Henry Smith described the township that year as well settled, with fine farms, and two or three excellent mill streams (Smith 1846:15).

In relation to the study area, the closest early settlement in the township is Kirkwall, which was established to the west at the present-day intersection of Kirkwall Road and Concession Road 8. Kirkwall, also known as “Little Scotland,” was settled by six families from Scotland in 1832 (Collins 2001:35). A



year later the settlers were joined by 12 additional families from Scotland, as well as an English family and four families from Northern Ireland (Collins 2001:35). Within three years of the arrival of the first European settlers, a log church was constructed to accommodate the growing congregation. In 1848, the log structure was replaced with a stone church (Collins 2001:35). In 1866, Kirkwall was a small post office village with a population of about 60. At the time the village had two stores, a church, a hotel, a blacksmith shop, and a boot and shoe shop (Mitchell 1866:343). Kirkwall remained a small village throughout the late 19th century, with a population of only 60 in 1886 (Irwin & Co. 1886:103).

The Great Western Railway (GWR) was constructed through the southern portion of the Township of Beverly from 1851 to 1853 (Page & Smith 1875:iv). The line opened in January 1854, operating between Windsor and Niagara Falls (Houghton 2008:88). Stations in the township were located in the hamlets of Lynden and Copetown. In 1883, the Township of Beverly reached a population of 4,890 (Irwin & Co. 1883:38).

A portion of the 1859 map of Beverly Township (Surtees 1859) is illustrated in Figure 4. Table 1 provides a summary of historical land tenure information from the 1859 map applicable to the study area.

Table 1: Summary of Applicable Landowner Information – 1859 Map of Beverly Township

Lot	Concession	Landowner	Parcel	Comment
25	7	G. Hunter	Southern parcel	No structures illustrated.
		John Patterson	Central parcel	No structures illustrated.
		Claude Lapsley	Northern parcel	No structures illustrated.
26	7	David Patterson	Southern parcel	No structures illustrated.
		Robt Parker	Northern parcel	No structures illustrated.
27	7	William Patterson	Entire parcel	No structures illustrated.
28	7	George Archer	Entire parcel	No structures illustrated.
29	7	Matthew Gilmore	Southern parcel	No structures illustrated.
		Seth Holcomb	Northern parcel	Portion of Valens Crooked Creek illustrated in northern portion of parcel.
30	7	Wm Currie	Southern parcel	No structures illustrated.
		Mr. Law	Northern parcel	Portion of Valens Crooked Creek illustrated in northern portion of parcel.
31	7	John Jamieson	Southern parcel	No structures illustrated.
		R. Dunn	Central parcel	No structures illustrated.
		John & James Smith	Northern parcel	Portion of Valens Crooked Creek illustrated in parcel.
32	7	Walter Robertson	Southern parcel	Portion of Valens Crooked Creek illustrated in parcel.
		John & James Smith	Northern parcel	Portion of Valens Crooked Creek illustrated in parcel.
33	7	Matthew Peebles	Southern parcel	Portion of Valens Crooked Creek illustrated in parcel.

Lot	Concession	Landowner	Parcel	Comment
		J. Mahoney	Northern parcel	No structures illustrated.
34	7	Thos Duncan	Southern parcel	No structures illustrated.
		Thos Baskerville	Northern parcel	No structures illustrated.
35	7	John Patton	Southern parcel	No structures illustrated.
		Jas Dunn	Northern parcel	No structures illustrated.
36	7	N. Wilson	Southwestern parcel	No structures illustrated.
		T. Burns	Southeastern parcel	No structures illustrated.
		William Johnstone	Northern parcel	No structures illustrated.

A portion of the 1875 map of Beverly Township (Page & Smith 1875) is illustrated in Figure 5. Table 2 provides a summary of historical land tenure information from the 1875 map applicable to the study area.

Table 2: Summary of Applicable Landowner Information – 1875 Map of Beverly Township

Lot	Concession	Landowner	Parcel	Comment
25	7	R. McCormick	Southern parcel	Structure with orchard/garden, fronting Valens Road North. Structure is illustrated within the study area on Figure 4; however, aerial imagery confirms the former structure was situated south of study area.
		Jno. Patterson	Central parcel	Orchard/garden illustrated north of study area.
		Wm Lapsley	Northern parcel	Structure with orchard/garden, fronting Valens Road North.
26	7	W. Thompson	Southern parcel	Structure with orchard/garden, fronting Safari Road.
		Jno. Patterson	Northern parcel	Structure with orchard/garden, fronting Concession 8 West. Northern portion of parcel illustrated as swamp.
27	7	Wm Patterson	Entire parcel	Structure with orchard/garden, fronting Safari Road. Northern portion of lot illustrated as swamp.
28	7	Geo. Archer	Entire parcel	Two structures with orchards/gardens, fronting Safari Road. Northern portion of lot illustrated as swamp.
29	7	M. Gilmore	Southern parcel	Structure with orchard/garden, fronting Safari Road.
		P. Woods	Northwestern parcel	No structures illustrated. Entire parcel is illustrated as swamp.
		D. Connor	Northeastern parcel	No structures illustrated. Northern portion of parcel is illustrated as swamp.

Lot	Concession	Landowner	Parcel	Comment
30	7	M. Gilmore	Southern parcel	Structure illustrated in southeast corner of lot, likely fronting Safari Road. Two structures illustrated at northern end of parcel, fronting Westover Road.
		Ja^{s} Law	Northern parcel	Structure with orchard/garden, fronting Westover Road. Portion of northern section illustrated as swamp.
31	7	Jno Jameson	Southern parcel	Structure with orchard/garden, likely fronting Westover Road.
		J. McDonnough	Central parcel	No structures illustrated.
		Jno Smith	Northern parcel	No structures illustrated. Portion of northern section illustrated as swamp.
32	7	Walter Robertson	Southern parcel	Structure with orchard/garden illustrated, likely fronting Safari Road.
		Jno Smith	Northern parcel	Structure with orchard/garden illustrated, likely fronting Concession 8 West. Portion of northern section illustrated as swamp.
33	7	Robt Galbraith	Southern parcel	Structure with orchard/garden illustrated, fronting Safari Road.
		J. Mahoney	Northern parcel	Structure with orchard/garden illustrated, likely fronting Concession 8 West. Portion of northern section illustrated as swamp.
34	7	Jno Jameson	Southern parcel	No structures illustrated.
		T. Baskerville	Northern parcel	Structure with orchard/garden illustrated, fronting Concession 8 West.
35	7	A. Patton	Southern parcel	Structure with orchard/garden illustrated, fronting Safari Road.
		Jas Dunn	Northern parcel	Single structure illustrated, fronting Concession 8 West.
36	7	R. Hamilton	Southwestern parcel	Single structure illustrated, fronting Safari Road.
		A. Patton	Southeastern parcel	Single structure illustrated, fronting Safari Road.
		B. Johnson	Northwestern parcel	No structures illustrated
		Wm Johnson	Northeastern parcel	Structure with orchard/garden illustrated, fronting Middletown Road.

During the 20th century, the study area in the Township of Beverly continued to be part of a rural landscape, surrounded, primarily, by agricultural lands. The hamlets and villages in the township witnessed a decline in the early 20th century, influenced by the nearby larger markets and industries in Hamilton and Toronto. In 1974, with the creation of the Regional Municipality of Hamilton-Wentworth, the Township of Beverly was amalgamated with the Townships of West and East Flamborough, to form the

Town of Flamborough. Later, in 2001, the Town of Flamborough was amalgamated into the new City of Hamilton (Hamilton Public Library 2017b).

1.2.2.3 Township of West Flamborough

The Township of West Flamborough was surveyed by Augustus Jones in 1793 using a single-front system. The township survey, similar to the Township of Beverly, was laid out in relation to the survey of the Governor's Road. The township was named after a small east coast village in Yorkshire, England. It was surveyed into west and east portions that remained administratively joined until 1854 (Hamilton Public Library 2017b). The west portion was laid out in the shape of a triangle with the Governor's Road serving as the base. It has 11 concessions running west to east that were numbered north from Governor's Road (Burkholder 1950). Each concession was composed of long and narrow lots that were approximately 200 acres in size. However, some lot sizes in the township are irregular, due to its triangular shape and Cootes Paradise along the southeast portion (Green *et al*. 2003:2).

As part of the survey of the township, Simcoe ordered that a 60-acre plot be set aside for the creation of a town plot. The town was surveyed in 1801 by Deputy Surveyor John Stegman and named Cootes Paradise (now Dundas) after Captain Thomas Cootes, a British Naval Officer who hunted waterfowl in the area in the 1780s (Royal Botanical Gardens n.d.). The town plot was laid out on a portion of Lot 17, Concession 1, in the Township of West Flamborough and a portion of Lot 53, Concession 1, in the Township of Ancaster (Page & Smith 1875:ix).

The first European settlers in the township were Ann Morden and her family, United Empire Loyalists who came to the township in 1787. When Jones surveyed the township, he noted the Morden family as squatters in the Dundas Valley (Woodhouse 1965:10). Other early European settlers prior to 1800 included Andrew Vanevery, John Purbus, Isaac Durham, William Chrysler, David Vanevery, Frederick Schram, John Rosebrough, Peter Vanevery, Isaac Smith, John Showers, Michael Showers, William Frances, Harcar Lyons, and James Durand (Woodhouse 1965:12).

One of West Flamborough Township's main features is Spencer Creek. In the early 19th century, the water flow of the creek was sufficiently strong to power several mills, particularly in the Greensville area, where the Honourable James Crooks established several mills of various types. The industrial and residential community came to be known as Crook's Hollow and included sawmills, grist mills, flour mills, and one of the first large-scale paper mills in Upper Canada at the time. Spencer Creek, as it flows through West Flamborough Township, provides the water for two of the region's most scenic waterfalls, Webster's Falls and Tew's Falls. Both waterfalls are located along the edge of the Niagara Escarpment, just downstream from the historic village of Bullock's Corners, location of the West Flamborough Township Hall.

Settlement in the Township of West Flamborough developed primarily along the waterways and road intersections. South of the study area, Edward Peer purchased 30 acres on Spencer Creek in 1801 and built the first mill in Dundas, known as Dundas Mills (Woodhouse 1965:14). Other mills developed along watercourses in the township and by 1823 the township had 11 grist mills and eight saw mills in operation (Page & Smith 1875:iii). The community of Dundas flourished in the 19th century as it was located at the

junction of large roadways and on the shoreline of Coote's Paradise Marsh. The town developed into a trading and transportation centre in the township (Freeman 2001:21). The town received the first post office in the township in 1814 and was given the name Dundas after the main thoroughfare in the settlement, Dundas Street (Conservation Hamilton n.d.).

Growth within the township accelerated with the construction of the Desjardins Canal between 1826 and 1837. The canal was constructed along the mouth of Spencer Creek to connect Dundas with Burlington Bay. Dundas served as the location for company headquarters and offices, as well as a community for workers (Page & Smith 1875:ix). Following the construction of the Desjardins Canal, Dundas became a busy port on Lake Ontario (Freeman 2001:37). In the northern portion of the township, the opening of the Guelph to Dundas Road began in 1827, following the founding of the Town of Guelph by John Galt, north of the study area. Galt instigated the development of a roadway through the Township of Puslinch towards the Township of West Flamborough. The Guelph to Dundas Road, also known as Aboukir Road, was laid out following an Indigenous trail. Although it was an open route, the Guelph to Dundas Road remained a trail until the mid-19th century. In 1846, the Guelph and Dundas Road Company was established by a group of Guelph businessmen to further open the roadway. By 1850, the roadway was nearly completed, running through the eastern portion of the study area (Clark 2016). The roadway is depicted as an open road on the 1859 map of Wentworth County forming the boundary between the townships of West and East Flamborough before heading south through the villages of Freelton and Strabane (see Figure 4).

Dundas was incorporated as a town on July 28, 1847 (Page & Smith 1875:ix). With the construction of the GWR in 1854, Dundas witnessed a shift from canal shipments to utilization of the railway for the transportation of goods. By the end of the 19th century, the Town of Dundas had become one of the major manufacturing towns in the province, with industries producing such goods as flour, cotton, clothing, agricultural implements, and furniture (Page & Smith 1875:ix).

In relation to the study area, the closest early settlement in the township was Strabane, which developed at the intersection of Brock Road and Concession Road 8 West. It was first settled by Matthew Peebles in 1842 (Mitchell 1866:352). A post office was established at the intersection in 1851 with Peebles as the first postmaster (Library and Archives Canada 2014). By 1866, the village had a population of about 100, and included a hotel, two sawmills, a school, a church, and a boot and shoemaker (Mitchell 1866:352-353). Strabane remained a small community throughout the late 19th century, with a population in 1898 of only about 50 (Vernon 1898:149). A portion of the 1859 map of West Flamborough Township (Surtees 1859) is illustrated in Figure 4. Table 3 provides a summary of historical land tenure information from the 1859 map applicable to the study area.

Table 3: Summary of Applicable Landowner Information – 1859 Map of West Flamborough Township

Lot	Concession	Landowner	Parcel	Comment
1	7	W. Hamilton	Southern parcel	No structures illustrated.
		Patk Hamilton	Northwestern parcel	No structures illustrated.
		Robt Hamilton	Northeastern parcel	No structures illustrated.
2	7	Thos Nickle	Southern parcel	No structures illustrated.
		W. Beryman	Northern parcel	No structures illustrated.
3	7	Geo Watson	Southern parcel	No structures illustrated.
		Wm Bullock	Northern parcel	No structures illustrated.
4	7	Alexr Finley	Western parcel	No structures illustrated.
		John Ferrier	Eastern parcel	No structures illustrated.
5	7	Robt & Joseph Dixon	Entire lot	No structures illustrated.
6	7	Andw Miller	Southern parcel	No structures illustrated.
		Mathew Peebles	Central and northwestern parcel	Structure illustrated, likely fronting Concession 8 West.
		Holt Estates	Northeastern parcel	Structure illustrated at northeast corner of parcel at intersection of Brock Road and Concession 8 West – “S.S.M”.
7	7	J. Peebles	Southern parcel	No structures illustrated.
		M. Peebes	Southcentral parcel	Structure illustrated, fronting Brock Road – Strabane Post Office.
		R. Peebles	Central parcel	No structures illustrated.
		W. Brenan	Northcentral parcel	No structures illustrated.
		M. Peebles	Northern parcel	Structure illustrated, fronting Concession 8 West – “W.S.M”.
8	7	John Fulton	Southern parcel	No structures illustrated.
		Jas Fulton	Central parcel	No structures illustrated.
		Mrs J Fraser	Northern parcel	No structures illustrated.
9	7	Andw Gertley	Southern parcel	No structures illustrated.
		Geo Murray	Western parcel	No structures illustrated.
		Alfred Millard	Eastern parcel	No structures illustrated.
10	7	Dennis Balfe	Southwestern parcel	No structures illustrated.
		James Dunden	Southcentral parcel	No structures illustrated.
		Alexr & James Robertson	Southeastern parcel	No structures illustrated.
		Daniel Cole	Western parcel	No structures illustrated.
		John Cole	Eastern parcel	No structures illustrated.

Lot	Concession	Landowner	Parcel	Comment
11	7	John & Wm Pegg	Southern parcel	No structures illustrated.
		Gilbert Alexander	Northern parcel	Tributary of Twelve Mile Creek within parcel.

A portion of the 1875 map of West Flamborough Township (Page & Smith 1875) is illustrated in Figure 5. Table 4 provides a summary of historical land tenure information from the 1875 map applicable to the study area.

Table 4: Summary of Applicable Landowner Information – 1875 Map of West Flamborough Township

Lot	Concession	Landowner	Parcel	Comment
1	7	W. Hamilton	Southern parcel	Structure with orchard/garden illustrated, likely fronting Safari Road.
		Pat^{k} Hamilton	Western parcel	Structure with orchard/garden illustrated, fronting Middletown Road.
		Robt Hamilton	Eastern parcel	Structure with orchard/garden illustrated, fronting Middletown Road.
2	7	Jas. Porter	Southern parcel	Structure with orchard/garden illustrated, likely fronting Safari Road.
		And^{w} Waddel, Hrs.	Northern parcel	Two structures illustrated, fronting Concession 8 West.
3	7	Wm Bullock	Southern parcel	Single structure illustrated, fronting Safari Road
		Mich^{l} Brennan	Northern parcel	No structures illustrated.
4	7	Alex Finley	Western parcel	Structure with orchard/garden illustrated, likely fronting Safari Road.
		Jno. Ferriers, Hrs.	Eastern parcel	Structure with orchard/garden illustrated, likely fronting Safari Road.
5	7	Jno. Featherstone	Southern parcel	Structure with orchard/garden illustrated, likely fronting Safari Road.
		Jas Robertson	Northern parcel	No structures illustrated.
6	7	Wm Miller	Southern parcel	Structure with orchard/garden illustrated, likely fronting Brock Road.
		Mathew Peebles	Northern parcel	Single structure illustrated, fronting Concession 8 West.
7	7	Jas Peebles	Southern parcel	Structure with orchard/garden illustrated, fronting Brock Road.
		Mathew Peebles	Southcentral parcel	Three structures illustrated, fronting Brock Road, including the Strabane Post Office.
		Jas Fulton	Central parcel	Two structures illustrated fronting Brock Road.
		Jno Brennan	Northcentral parcel	Structure with orchard/garden illustrated, fronting Brock Road.

Lot	Concession	Landowner	Parcel	Comment
		Mathew Peebles	Northern parcel	Various structures illustrated, fronting Brock Road, including two mills.
8	7	Jno Fulton	Southern parcel	Two structures illustrated, fronting Safari Road.
		Jas Fulton	Central parcel	Two structures illustrated, likely fronting Safari Road.
		Angus Fraser	Northern parcel	Three structures illustrated, fronting Concession 8 West, including a mill.
9	7	And^{w} Gartley	Southwestern parcel	Structure with orchard/garden illustrated, fronting Safari Road.
		Alex Gartley	Southeastern parcel	Structure with orchard/garden illustrated, fronting Safari Road.
		Geo Murray	Northwestern parcel	Single structure illustrated, fronting Concession 8 West.
		Alf^{d} Millard, Heirs	Northeastern parcel	Structure with orchard/garden illustrated, fronting Concession 8 West.
10	7	Ew^{d} Balf	Southwestern parcel	Single structure illustrated, fronting Safari Road.
		T.J. Newman	Southcentral parcel	Structure with orchard/garden illustrated, fronting Safari Road.
		Alex Robertson	Southeastern parcel	Single structure illustrated, fronting Safari Road.
		Daniel Cole	Northwestern parcel	Structure with orchard/garden illustrated, fronting Concession 8 West.
		And^{w} Simmon's Heirs	Northeastern parcel	Structure with orchard/garden illustrated, fronting Concession 8 West.
11	7	Jno & Willm Pegg	Southern parcel	Structure with orchard/garden illustrated, fronting Safari Road.
		Henry Carson	Northern parcel	Structure with orchard/garden illustrated, fronting Highway 6 North.

At the turn of the 20th century, the Town of Dundas witnessed a change in settlement patterns as retired farmers began to move into the town from the surrounding township. The proximity of Dundas to the City of Hamilton also created the possibility for many town residents to work in Hamilton while maintaining their home in Dundas (Meyers 1954:42). Traffic between Dundas and Hamilton increased with the development of better roads and highways beginning in the 1920s. In 1920, the Department of Public Highways Ontario assumed roads from Hamilton to Owen Sound and established King's Highway 6 (Bevers 2020). The highway, situated within the study area, is now a busy commuter route in the City of Hamilton, with connections to Highways 401 and 403. In January 2001, the Towns of Flamborough and Dundas amalgamated with the City of Hamilton (Hamilton Public Library 2017a). Dundas remains a small suburban community within the City with a population of 24,710 in 2006 (Social Planning & Research Council of Hamilton 2008).

1.2.2.4 Township of East Flamborough

The Township of East Flamborough was surveyed in 1793 by Augustus Jones using a single-front system. Like the Township of West Flamborough, the Township of East Flamborough was laid out in relation to the Governor's Road. The Township of East Flamborough has 14 concessions running south to north, with a broken front along Burlington Bay. Lots in the township are numbered east to west. Laid out using the single-front system, each concession comprises long and narrow lots that are approximately 200 acres in size.

The Township of East Flamborough was named after the Town of Flamborough in East Yorkshire, England. The first European settler to the Township of East Flamborough was David Fonger who arrived in 1783; he was followed by William Applegarth in 1791 (Green *et al*. 1997:5). Land grants were given beginning in 1796 in the lower portions of the township. One of the first grants was given to Alexander McDonnelll in 1796, which included 800 acres along Grindstone Creek (Waterdown East Flamborough Centennial Committee [WEFCC] 1967:12).

Settlement in the Township of East Flamborough developed primarily at road intersections and along the waterways, which acted as a source of power for mills. The first mill in the township was constructed on Grindstone Creek by William and John Applegarth (Green *et al*. 1997:5), followed in the early 1800s by a sawmill on the creek near the Great Falls. The settlement of Waterdown developed around Brown's mill, at the crossroads of Dundas Street and Mill Street (Green *et al*. 1997:18) and became the largest village in the township throughout the 19th century.

The southern portion of the township was first settled in the early 19th century, while the remaining portions of the township remained heavily wooded until the 1820s and 1830s. By 1846, 25,537 acres in the township had been taken up, with 8,750 acres under cultivation. By this time the township had two grist mills and nine sawmills (Smith 1846:59). In 1854, the Township of East Flamborough was incorporated as a separate township from West Flamborough (Hamilton Public Library 2017b).

In relation to the study area, the closest early settlement in the township is Carlisle, which was established to the east in 1828 by John Eaton. Eaton and his wife Catherine settled on 400 acres of land in Lots 8 and 9, Concession 8, in the Township of East Flamborough in 1828 (Lake and Reynolds Genealogy 2017). A small village plot, originally known as Eaton, was laid out on Eaton's property by his son Anson Eaton, along with Andrew Patton and George Abery (Mitchell 1866:335). Early European settlers to this hamlet included the Fords, Pattons, Kievels, Hamiltons, McColls, Crookers, Gunbys, Mordens, Adamsons, Binkleys, Hunts, Greens, Mills, and Bennetts (WEFCC 1967:35). A post office was established in the hamlet in 1851, with G.R. Lister as the first postmaster (Library and Archives Canada 2014). In 1853, the hamlet was renamed to Carlisle (WEFCC 1967:35) and the Hamilton, Waterdown, and Carlisle Road was constructed beyween Hamilton and Carlisle. In 1866, Carlisle had a population of 150, with two general stores, several sawmills, two schools, and two churches (Mitchell 1866:335).

By 1867, all the lots in the township had been taken up by residents or land speculators (Green *et al*. 1997:3). In 1883, the township reached a population of 2,377 and included the villages of Aldershot, Carlisle, Clappison, Flamboro Centre, Mountsberg, and Waterdown (Irwin & Co. 1883:54). The largest

village was Waterdown, with a population of about 700, while Carlie had a population of 150 (Irwin & Co. 1883). A portion of the 1859 map of East Flamborough Township (Surtees 1859) is illustrated in Figure 4. Table 5 provides a summary of historical land tenure information from the 1859 map applicable to the study area

Table 5: Summary of Applicable Landowner Information – 1859 Map of East Flamborough Township

Lot	Concession	Landowner	Parcel	Comment
13	9	Jas Lafferty	Southern parcel	No structures illustrated. Portion of a tributary of Twelve Mile Creek within parcel.
		John Cummings	Northern parcel	No structures illustrated. Portion of a tributary of Twelve Mile Creek within parcel.
12	9	John Hutchinson	Southern parcel	No structures illustrated. Portion of a tributary of Twelve Mile Creek within parcel.
		Loami Sutton	Central parcel	No structures illustrated.
		T. Lambier	Northern parcel	No structures illustrated.

A portion of the 1875 map of East Flamborough Township (Page & Smith 1875) is illustrated in Figure 5. Table 6 provides a summary of historical land tenure information from the 1875 map applicable to the study area.

Table 6: Summary of Applicable Landowner Information – 1875 Map of East Flamborough Township

Lot	Concession	Landowner	Parcel	Comment
13	9	James Lafferty	Southern parcel	No structures illustrated.
		D. Cummins	Northern parcel	Single structure illustrated, likely fronting Concession 10 East.
12	9	John Walker	Southern parcel	Structure with orchard/garden illustrated, fronting Carlisle Road.
		John Lambier	Northwestern parcel	Structure with orchard/garden illustrated, fronting Concession 10 East.
		Louise Sutton	Northeastern parcel	Structure with orchard/garden illustrated, fronting Concession 10 East.

At the beginning of the 20th century, the study area remained within a rural portion of the Township of East Flamborough, just west of the hamlet of Carlisle, and was surrounded by agricultural lands. Carlisle received a small period of growth with the construction in 1911 of the Canadian Pacific Railway (C.P.R.) between Hamilton and Guelph. Traffic surrounding the study area increased with the development of better roads and highways beginning in the 1920s. The Township of East Flamborough was similarly influenced by the development of Highway 6, which influenced the development of subdivisions in Carlisle following the Second World War (WEFCC 1967:37). In January 1974, the Township of East Flamborough became part of the Regional Municipality of Hamilton-Wentworth. In January 2001, the township was

amalgamated into the new City of Hamilton (Hamilton Public Library 2017b). Carlisle remains a small community within the City, with a population in 2016 of 1,869 (Statistics Canada 2016).

1.2.2.5 Summary

As illustrated above, the historical context of the study area for the Project includes numerous examples of early Euro-Canadian resources. In discussing the late 19th century historical mapping, it must be remembered that historical county atlases were produced primarily to identify factories, offices, residences, and landholdings of subscribers and were funded by subscription fees. Landowners who did not subscribe were not always listed on the maps (Caston 1997:100). As such, structures were not necessarily depicted or placed accurately (Gentilcore and Head 1984). Further, review of historical mapping, including treaty maps, also has inherent accuracy difficulties due to potential error in geo-referencing. Geo-referencing is conducted by assigning spatial coordinates to fixed locations and using these points to spatially reference the remainder of the map. Due to changes in "fixed" locations over time (e.g., road intersections, road alignments, watercourses, etc.), errors/difficulties of scale and the relative idealism of the historical cartography, historical maps may not translate accurately into real space points. This may provide obvious inconsistencies during the historical map review. For example, structures depicted on historical mapping may appear to lie within the study area when, in fact, they are located outside of the study area.

Nonetheless, the majority of the study area has been subject to European-style agricultural practices for over 100 years, having been densely populated by Euro-Canadian farmers by the late 19th century. Portions of the study area have been cleared of woodlot and have had extensive drainage systems installed to reclaim swamp and marshland as agricultural field. Even with modern drainage systems, many of the fields included in the study area contain high rock content and are not suitable for cash cropping. Rather, they are untilled fields used for livestock pens and pasture lands.

1.3 ARCHAEOLOGICAL CONTEXT

1.3.1 The Natural Environment

The study area for the Project lies within the Flamborough Plain physiographic region. The Flamborough Plain physiographic region consists of:

> *An isolated tract of shallow drift on the Niagara cuesta…It is an area of about 150 square miles, bounded on the northwest by the Galt Moraine, and on the south by the silts and sands of glacial Lake Warren. A few drumlins are found scattered over this limestone plain and swamps are plentiful. The limestone has been swept bare in places…what little overburden there is on the bedrock, apart from the drumlins, is either bouldery glacial till or sand and gravel…Good soil is not plentiful in the little region: the soil is either wet or stony and shallow.*
>
> (Chapman and Putnam 1984:129-130)

Generally, two watersheds, i.e., Spencer Creek and small tributaries of Bronte Creek (identified as Twelve Mile Creek on historical mapping), serve to drain the Flamborough Plains physiographic region. Portions of these two watersheds traverse the study area. Additional unnamed secondary and tertiary creeks and streams from these primary sources are noted within the study area. Moreover, additional ancient and/or relic tributaries of water sources may have existed but are not identifiable today and are not indicated on historic mapping.

Soils within the region are generally of poor quality as they are often wet or stony and shallow (Chapman and Putnam 1984:130). With modern agricultural tiling, these soils, while not ideal, would become suitable for agricultural practices. However, in many areas within the study area, bedrock is close to the surface and, in other areas, soils exhibit a high degree of rock content. In these areas, ploughing has not been feasible, and the lands are limited to use as livestock pens and pastures.

1.3.2 Pre-contact Indigenous Resources

It has been demonstrated that Indigenous people began occupying southern Ontario as the Laurentide glacier receded, as early as 9000 BCE (Ellis and Ferris 1990:13). Much of what is understood about the lifeways of these Indigenous peoples is derived from archaeological evidence and ethnographic analogy. In Ontario, Indigenous culture prior to the period of contact with European peoples has been distinguished into cultural periods based on observed changes in material culture. These cultural periods are largely based on observed changes to formal lithic tools, and separated into the Early Paleo-Indian, Late Paleo-Indian, Early Archaic, Middle Archaic, Late Archaic and Terminal Archaic periods. Following the advent of ceramic technology in the Indigenous archaeological record, cultural periods are separated into the Early Woodland, Middle Woodland, and Late Woodland periods, based primarily on observed changes in formal ceramic decoration. It should be noted that these cultural periods do not necessarily represent specific cultural identities but are a useful paradigm for understanding changes in Indigenous culture through time. The current understanding of Indigenous archaeological culture is summarized in Table 7, based on Ellis and Ferris (1990). The provided time periods are based on the “Common Era” calendar notation system, i.e., Before Common Era (BCE) and Common Era (CE).

Table 7: Generalized Cultural Chronology of the Study Area

Period	Characteristics	Time Period	Comments
Early Paleo-Indian	Fluted Projectiles	9000 – 8400 BCE	Spruce parkland, caribou hunters
Late Paleo-Indian	Hi-Lo Projectiles	8400 – 8000 BCE	Smaller but more numerous sites
Early Archaic	Kirk and Bifurcate Base Points	8000 – 6000 BCE	Slow population growth
Middle Archaic	Brewerton-like points	6000 – 2500 BCE	Environment similar to present
Late Archaic	Narrow Points	2500 – 1800 BCE	Increasing site size
	Broad Points	1800 – 1500 BCE	Large chipped lithic tools
	Small Points	1500 – 1100 BCE	Introduction of bow hunting
Terminal Archaic	Hind Points	1100 - 950 BCE	Emergence of true cemeteries
Early Woodland	Meadowood Points	950 - 400 BCE	Introduction of pottery

Period	Characteristics	Time Period	Comments
Middle Woodland	Dentate/Pseudo-Scallop Pottery	400 BCE – 500 CE	Increased sedentism
	Princess Point	550 – 900 CE	Introduction of corn
Late Woodland	Early Ontario Iroquoian	900 – 1300 CE	Emergence of agricultural villages
	Middle Ontario Iroquoian	1300 – 1400 CE	Long longhouses (100+ metres)
	Late Ontario Iroquoian	1400 – 1650 CE	Tribal warfare and displacement
Contact Indigenous	Various Algonkian Groups	1650 – 1875 CE	Early written records and treaties
Late Historic	Euro-Canadian	1796 CE – present	European settlement

Between 9000 and 8000 BCE, Indigenous populations were sustained by hunting, fishing, and foraging and lived a relatively mobile existence across an extensive geographic territory. Despite these wide territories, social ties were maintained between groups. One method of maintaining social ties was through gift exchange, evident through exotic lithic material documented on many sites (Ellis 2013:35-40).

By approximately 8000 BCE, evidence exists and becomes more common for the production of ground-stone tools such as axes, chisels, and adzes. These tools themselves are believed to be indicative specifically of woodworking. This evidence can be extended to indicate an increase in craft production and arguably craft specialization. This latter statement is also supported by evidence, dating to approximately 7000 BCE of ornately carved stone objects which would be laborious to produce and have explicit aesthetic qualities (Ellis 2013:41). This is indirectly indicative of changes in social organization which permitted individuals to devote time and effort to craft specialization. Since 8000 BCE, the Great Lakes basin experienced a low-water phase, with shorelines significantly below modern lake levels (Stewart 2013: Figure1.1.C). It is presumed that the majority of human settlements would have been focused along these former shorelines. At approximately 6500 BCE the climate had warmed considerably since the recession of the glaciers and the environment had grown more similar to the present day. By approximately 4500 BCE, evidence exists from southern Ontario for the utilization of native copper (naturally occurring pure copper metal) (Ellis 2013:42). The known origin of this material along the north shore of Lake Superior indicates the existence of extensive exchange networks across the Great Lakes basin.

At approximately 3500 BCE, the isostatic rebound of the North American plate following the melt of the Laurentide glacier had reached a point which significantly affected the watershed of the Great Lakes basin. Prior to this, the Upper Great Lakes had drained down the Ottawa Valley via the French-Mattawa river valleys. Following this shift in the watershed, the drainage course of the Great Lakes basin had changed to its present course. This also prompted a significant increase in water-level to approximately modern levels (with a brief high-water period); this change in water levels is believed to have occurred catastrophically (Stewart 2013:28-30). This change in geography coincides with the earliest evidence for cemeteries (Ellis 2013:46). By 2500 BCE, the earliest evidence exists for the construction of fishing weirs (Ellis *et al.* 1990: Figure 4.1). Construction of these weirs would have required a large amount of communal labour and are indicative of the continued development of social organization and communal identity. The large-scale procurement of food at a single location also has significant implications for

permanence of settlement within the landscape. This period is also marked by further population increase and by 1500 BCE evidence exists for substantial permanent structures (Ellis 2013:45-46).

By approximately 950 BCE, the earliest evidence exists for populations using ceramics. Populations are understood to have continued to seasonally exploit natural resources. This advent of ceramic technology correlated, however, with the intensive exploitation of seed foods such as goosefoot and knotweed as well as mast such as nuts (Williamson 2013:48). The use of ceramics implies changes in the social organization of food storage as well as in the cooking of food and changes in diet. Fish also continued to be an important facet of the economy at this time. Evidence continues to exist for the expansion of social organization (including hierarchy), group identity, ceremonialism (particularly in burial), interregional exchange throughout the Great Lakes basin and beyond, and craft production (Williamson 2013:48-54).

By approximately 550 CE, evidence emergences for the introduction of maize into southern Ontario. This crop would have initially only supplemented Indigenous people's diet and economy (Birch and Williamson 2013:13-14). Maize-based agriculture gradually became more important to societies and by approximately 900 CE permanent communities emerge which are primarily focused on agriculture and the storage of crops, with satellite locations oriented toward the procurement of other resources such as hunting, fishing, and foraging. By approximately 1250 CE, evidence exists for the common cultivation of historic Indigenous cultigens, including maize, beans, squash, sunflower and tobacco. The cultural affiliation of populations within the region of the study area at this time period is debated, whether they may have spoken a form of Iroquoian language or Algonquian (Murphy and Ferris 1990). The extant archaeological record demonstrates many cultural traits similar to historical Indigenous nations (Williamson 2013:55).

1.3.3 Registered Archaeological Sites and Surveys

In Canada, archaeological sites are registered within the Borden system, a national grid system designed by Charles Borden in 1952 (Borden 1952). The grid covers the entire surface area of Canada and is divided into major units containing an area that is two degrees in latitude by four degrees in longitude. Major units are designated by upper case letters. Each major unit is subdivided into 288 basic unit areas, each containing an area of 10 minutes in latitude by 10 minutes in longitude. The width of basic units reduces as one moves north due to the curvature of the earth. In southern Ontario, each basic unit measures approximately 13.5 kilometres east-west by 18.5 kilometres north-south. In northern Ontario, adjacent to Hudson Bay, each basic unit measures approximately 10.2 kilometres east-west by 18.5 kilometres north-south. Basic units are designated by lower case letters. Individual sites are assigned a unique, sequential number as they are registered. These sequential numbers are issued by the MHSTCI who maintain the *Ontario Archaeological Sites Database*. The study area is located within Borden blocks AiHa and AiGx, and Borden block AhHa is located immediately to the south.

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of Privacy Act* (Government of Ontario 1990b). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MHSTCI will provide information concerning site location to the party

or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

An examination of the *Ontario Archaeological Sites Database* has shown that there are 17 registered archaeological sites within one kilometre of the study area (Government of Ontario 2020a). None of the registered archaeological sites are located within 50 metres of the study area. Table 8 provides a summary of the registered archaeological sites.

Table 8: Registered Archaeological Sites

Borden #	Site Name	Site Type	Generalized Cultural Affiliation
AiHa-1	Shaver Hill Ossuary	Ossuary	Indigenous
AiHa-2	Christianson	Village	Indigenous
AiHa-3	Dwyer Ossuary	Ossuary	Indigenous
AiHa-5	Hamilton / Hunter-Beaton	Village	Indigenous
AiHa-7	Hood	Village / Burial	Indigenous
AiHa-8	Mills	Village	Indigenous
AiHa-9	MacDonald	Village	Indigenous
AiHa-10	Bogle I	Hamlet	Indigenous
AiHa-11	Bogle II	Hamlet	Indigenous
AiHa-12	Robertson	Village	Indigenous
AiHa-14	Freelton / Kynast	Village	Indigenous
AiHa-18	Kralt	Hamlet	Indigenous
AiHa-23	UG Kirkwall 1	Lithic scatter	Indigenous
AiHa-29	Groen	Camp	Indigenous
AiHa-36	Rutherford	Homestead	19th century Euro-Canadian
AiGx-70	Gamble	Indeterminate	Indigenous
AhHa-379	Tract 39, Location 1	Homestead	19th century Euro-Canadian

A query of the *Ontario Public Register of Archaeological Reports* identified three previous archaeological assessments which may document work within 50 metres of the study area (Government of Ontario 2020b). Based on an examination of the queried reports, none document registered archaeological sites within 50 metres of the study area. Additional reports in the *Ontario Public Register of Archaeological Reports* suggest previous work has been completed in the general vicinity of the study area. However, many of these reports represent archaeological assessments from the 1970s and 1980s when mapping and artifact recording standards were less precise than today's standards. Stantec's Stage 1 archaeological assessment report for the Project (Stantec 2019) provides an overview of the earlier and possibly related archaeological reports. Table 9 provides a summary of the previous archaeological reports relevant to the Stage 2 study area.

Table 9: Previous Archaeological Assessments

Year	Report	Author	Project Information Form (PIF) Number
2007	*The 2005-2006 Stage 2-4 Archaeological Investigations of the NPS 48 Hamilton to Milton Loop, Hamilton Take-off to Milton Tie-In Project, Hamilton-Wentworth Regional Municipality & Halton Regional Municipality Ontario*	D.R. Poulton & Associates Inc. (DPA)	P116-051-2005; P116-172-2006
2016a	*Stage 2 Archaeological Assessment: Dawn Parkway System Expansion, Hamilton to Milton Section, Union Gas Limited, Parts of Lots 1 to 13, Concession 9, Geographic Township of East Flamborough, former Wentworth County, now City of Hamilton, and parts of Lot 10, Concessions 1 to 3, Geographic Township of Nelson, former Halton County, now City of Burlington, Regional Municipality of Halton, Ontario*	Stantec	P256-0383-2015
2016b	*Stage 1-2 Archaeological Assessment: Hamilton Valve Site Access Road Widening, Part of Lot 13, Concession 9, Geographic Township of East Flamborough, now City of Hamilton, Ontario*	Stantec	P083-0261-2015
2019	*Stage 1 Archaeological Assessment: Kirkwall – Hamilton Pipeline Project, Parts of Various Lots and Concessions, Geographic Townships of Beverly, West Flamborough, and East Flamborough, former Wentworth County, now City of Hamilton, Ontario*	Stantec	P256-0564-2019

As part of the Stage 2 assessment for the NPS 48 Hamilton to Milton Loop, Hamilton Take-off to Milton Tie-In Project, a portion of DPA's (2007) survey area overlaps with the current study area around the existing Hamilton Valve Site. No archaeological resources were identified in this area, or in the 50 metres surrounding this area, by DPA (2007).

In 2015, Stantec completed the Stage 2 assessment of the Dawn Parkway System Expansion, Hamilton to Milton Section project (Stantec 2016a). A portion of the Stantec (2016a) study area overlaps with the current study area, as well as a portion of DPA's (2007) study area, around the existing Hamilton Valve Site. No archaeological resources were identified in this area, or in the 50 metres surrounding this area, by Stantec (2016a).

To facilitate the widening of the access road leading to Enbridge's existing Hamilton Valve Site, Stantec (2016b) completed a Stage 1-2 archaeological assessment. The study area for Stantec (2016b) is situated adjacent and to the south of the current study area for the Project. No archaeological resources were identified by Stantec during the assessment (Stantec 2016b).

In 2019, Stantec completed a Stage 1 archaeological assessment for the Project. The study area for the Stage 1 assessment of the Project was large, comprising approximately 6,400 hectares, and designed to capture a broad and generalized geographic area associated with the Project since the final routing of the pipeline was not known at that time. The Stage 1 archaeological assessment determined that the entirety of the study area retains potential for the identification of Indigenous and Euro-Canadian archaeological resources (Stantec 2019). Stantec (2019) determined that Stage 2 archaeological assessment was

required for any portion of the Project's anticipated construction activities which impacted an area of archaeological potential.

1.3.4 Existing Conditions

The Stage 2 study area for the Project comprises approximately 77.6 hectares and includes various lots and concessions, Geographic Townships of Beverly, West Flamborough, and East Flamborough, former Wentworth County, now City of Hamilton, Ontario (see Figure 1). The proposed Project will be constructed between Enbridge's existing Kirkwall valve site, located northeast of the intersection of Safari Road and Valens Road, and Enbridge's existing Hamilton valve site, located east of Highway 6 and north of Carlisle Road, generally paralleling three existing Enbridge pipelines (see Figure 2). Broadly, much of the study area is located within Enbridge's existing pipeline easement which contains other active pipelines. More specifically, the study area comprises agricultural field, woodlot, scrubland and pasture, manicured lawn, areas of previous disturbance, and low and permanently wet areas.

2.0 FIELD METHODS

The Stage 2 archaeological assessment of the study area for the Project was conducted between May 8, 2020 and November 20, 2020 under PIF number P256-0616-2020 issued to Parker Dickson, MA, of Stantec by the MHSTCI. The study area comprises approximately 77.6 hectares. Prior to the start of the Stage 2 archaeological assessment, Enbridge provided AutoCAD files which defined the study area. These files were then geo-referenced by Stantec's Geographic Information Services (GIS) team and a digital file (i.e., a shape file) was created of the Project's anticipated components and study area. The digital file was uploaded to handheld mobile/GPS devices for use in the field. In some areas, the study area was further delineated in the field by wooden stakes installed by Enbridge's third-party geomatics subcontractor.

During the Stage 2 survey, field, weather, and lighting conditions were suitable for the identification and recovery of archaeological resources. At no time was the archaeological assessment conducted when the field, weather, or lighting conditions were detrimental to the recovery of archaeological material (Table 10). Photographic documentation in Section 8.1 of this report confirms that field conditions met the requirements for a Stage 2 archaeological assessment, as per the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Section 7.8.6 Standard 1a.; Government of Ontario 2011). Figure 6 provides an illustration of the Stage 2 assessment methods, as well as photograph locations and directions.

Table 10: Weather and Field Conditions

Date	Field Director	Activity	Weather	Field Conditions
May 8, 2020	Hillary Schwering (R1064)	Test pit survey	Overcast, cool	Soil is dry and friable, screens well.
May 21, 2020	Hillary Schwering (R1064)	Pedestrian and test pit survey	Sunny, mild	Ground visibility is greater than 80%; soil is dry and friable, screens well.
May 22, 2020	Hillary Schwering (R1064)	Pedestrian and test pit survey	Sunny, mild	Ground visibility is greater than 80%; soil is dry and friable, screens well.
May 27, 2020	Darren Kipping (R422)	Pedestrian and test pit survey	Partly sunny, warm	Ground visibility is greater than 80%; soil is dry and friable, screens well.
May 28, 2020	Darren Kipping (R422)	Pedestrian and test pit survey	Partly sunny, warm	Ground visibility is greater than 80%; soil is dry and friable, screens well.
May 29, 2020	Kristen Hahne (R1154)	Test pit survey	Overcast, warm	Soil is dry and friable, screens well.
June 1, 2020	Kristen Hahne (R1154)	Pedestrian and test pit survey	Sunny, warm	Ground visibility is greater than 80%; soil is dry and friable, screens well.
June 2, 2020	Kristen Hahne (R1154)	Pedestrian and test pit survey	Partly cloudy, warm	Ground visibility is greater than 80%; soil is dry and friable, screens well.

Field Methods
March 30, 2021

Date	Field Director	Activity	Weather	Field Conditions
June 3, 2020	Kristen Hahne (R1154)	Pedestrian and test pit survey	Partly cloudy, warm; light rain in morning	Ground visibility is greater than 80%; soil is damp and friable, screens well.
June 4, 2020	Kristen Hahne (R1154)	Test pit survey	Sunny, hot	Soil is dry and friable, screens well.
June 5, 2020	Kristen Hahne (R1154)	Test pit survey	Sunny, hot	Soil is dry and friable, screens well.
June 8, 2020	Kristen Hahne (R1154)	Test pit survey	Sunny, warm	Soil is dry and friable, screens well.
June 9, 2020	Kristen Hahne (R1154)	Test pit survey	Sunny, hot	Soil is dry and friable, screens well.
June 15, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry to damp, and friable, screens well.
June 16, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry to damp, and friable, screens well.
June 17, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry and friable, screens well.
June 18, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry and friable, screens well.
June 19, 2020	Christian Meier (R1122)	Test pit survey	Mainly sunny, warm	Soil is dry and friable, screens well.
June 23, 2020	Christian Meier (R1122)	Test pit survey	Overcast, warm; rain in afternoon	Soil is dry and friable, screens well. Work stopped in afternoon due to heavy rains.
June 24, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, mild	Soil is damp and friable, screens well.
June 25, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry and friable, screens well.
June 26, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry and friable, screens well.
June 29, 2020	Christian Meier (R1122)	Test pit survey	Sunny, hot	Soil is dry and friable, screens well.
June 30, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry and friable, screens well.
July 2, 2020	Christian Meier (R1122)	Test pit survey	Sunny, hot	Soil is dry and friable, screens well.
July 3, 2020	Christian Meier (R1122)	Test pit survey	Sunny, hot	Soil is dry and friable, screens well.
July 6, 2020	Christian Meier (R1122)	Test pit survey	Sunny, hot	Soil is dry and friable, screens well.
July 7, 2020	Christian Meier (R1122)	Test pit survey	Sunny, hot	Soil is dry and friable, screens well.

Field Methods
March 30, 2021

Date	Field Director	Activity	Weather	Field Conditions
July 8, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry and friable, screens well.
July 9, 2020	Christian Meier (R1122)	Test pit survey	Sunny, hot	Soil is dry and friable, screens well.
July 10, 2020	Christian Meier (R1122)	Test pit survey	Sunny, hot	Soil is dry and friable, screens well.
July 13, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry and friable, screens well.
July 14, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry and friable, screens well.
July 15, 2020	Christian Meier (R1122)	Test pit survey	Sunny, hot	Soil is dry and friable, screens well.
July 16, 2020	Christian Meier (R1122)	Test pit survey	Overcast, warm; rain in afternoon	Soil is dry and friable, screens well. Work stopped in afternoon due to heavy rains.
July 17, 2020	Christian Meier (R1122)	Test pit survey	Sunny, hot	Soil is dry to damp, and friable, screens well.
July 20, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry and friable, screens well.
July 21, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry and friable, screens well.
July 22, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry and friable, screens well.
July 23, 2020	Bobbi Sheppard (R1152)	Test pit survey	Sunny, hot	Soil is dry, and friable, screens well.
July 24, 2020	Bobbi Sheppard (R1152)	Test pit survey	Sunny, hot	Soil is dry, and friable, screens well.
July 27, 2020	Christian Meier (R1122)	Test pit survey	Sunny, hot	Soil is dry, and friable, screens well.
July 28, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry, and friable, screens well.
July 29, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry and friable, screens well.
July 30, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry and friable, screens well.
July 31, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry and friable, screens well.
August 4, 2020	Christian Meier (R1122)	Test pit survey	Overcast, warm; light rain in morning	Soil is dry to damp, and friable, screens well.
August 5, 2020	Christian Meier (R1122)	Test pit survey	Overcast, warm	Soil is dry, and friable, screens well.

Field Methods
March 30, 2021

Date	Field Director	Activity	Weather	Field Conditions
August 6, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry, and friable, screens well.
August 7, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry, and friable, screens well.
August 10, 2020	Christian Meier (R1122)	Test pit survey	Sunny, hot	Soil is dry, and friable, screens well.
August 11, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry, and friable, screens well.
August 12, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry, and friable, screens well.
August 13, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry, and friable, screens well.
August 14, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry, and friable, screens well.
August 17, 2020	Christian Meier (R1122)	Test pit survey	Overcast, warm; rain in afternoon	Soil is dry and friable, screens well. Work stopped in afternoon due to heavy rains.
August 18, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is damp, and friable, screens well.
August 19, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry, and friable, screens well.
August 20, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry, and friable, screens well.
August 21, 2020	Christian Meier (R1122)	Test pit survey	Sunny, warm	Soil is dry, and friable, screens well.
August 24, 2020	Christian Meier (R1122)	Test pit survey	Sunny, hot	Soil is dry, and friable, screens well.
August 25, 2020	Christian Meier (R1122)	Test pit survey	Sunny, hot	Soil is dry, and friable, screens well.
August 26, 2020	Christian Meier (R1122)	Test pit survey	Mainly sunny, warm	Soil is dry, and friable, screens well.
August 27, 2020	Christian Meier (R1122)	Test pit survey	Mainly sunny, hot	Soil is dry, and friable, screens well.
August 28, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
August 31, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
September 1, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
September 2, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
September 3, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.

Field Methods
March 30, 2021

Date	Field Director	Activity	Weather	Field Conditions
September 4, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
September 8, 2020	Kristen Hahne (R1154)	Test pit survey	Overcast, cool	Soil is dry, and friable, screens well.
September 10, 2020	Kristen Hahne (R1154)	Test pit survey	Overcast, warm	Soil is dry, and friable, screens well.
September 11, 2020	Kristen Hahne (R1154)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
September 14, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
September 15, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
September 16, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
September 17, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, mild	Soil is dry, and friable, screens well.
September 18, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, mild	Soil is dry, and friable, screens well.
September 21, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, mild	Soil is dry, and friable, screens well.
September 22, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
September 23, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
September 24, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
September 25, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
September 28, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
September 29, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, mild	Soil is dry, and friable, screens well.
September 30, 2020	Christian Meier (R1122)	Test pit survey	Overcast, mild; rain in afternoon	Soil is dry and friable, screens well. Work stopped in afternoon due to heavy rains.
October 1, 2020	Christian Meier (R1122)	Test pit survey	Sunny, mild	Soil is dry to damp, and friable, screens well.
October 2, 2020	Christian Meier (R1122)	Test pit survey	Partly cloudy, mild	Soil is dry to damp, and friable, screens well.
October 5, 2020	Christian Meier (R1122)	Test pit survey	Mainly sunny, mild	Soil is dry, and friable, screens well.
October 6, 2020	Christian Meier (R1122)	Test pit survey	Mainly sunny, mild	Soil is dry, and friable, screens well.

Date	Field Director	Activity	Weather	Field Conditions
October 7, 2020	Christian Meier (R1122)	Field conditions check	Overcast, cool; rain	Not applicable; no archaeological work completed.
October 8, 2020	Christian Meier (R1122)	Pedestrian survey; test pit survey	Partly cloudy, mild	Ground visibility is greater than 80%; soil is dry and friable, screens well.
October 9, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, warm	Soil is dry, and friable, screens well.
October 23, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, mild	Soil is dry, and friable, screens well.
November 18, 2020	Christian Meier (R1122)	Test pit survey	Overcast, cool	Soil is dry, and friable, screens well.
November 19, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, mild	Soil is dry, and friable, screens well.
November 20, 2020	Christian Meier (R1122)	Test pit survey	Partly sunny, mild	Soil is dry, and friable, screens well.

Approximately 23.9% of the study area consists of active agricultural field and was subject to pedestrian survey in accordance with Section 2.1.1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). In some instances, the pedestrian survey interval was reduced to one metre to accommodate staff within narrow survey corridors or where appropriate based on crop conditions in accordance with Section 2.1.1 Guideline 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Regardless of the survey interval, ground surface visibility during the pedestrian survey was 80% or more and provided for adequate conditions for the identification of archaeological resources. Photographs illustrating the pedestrian survey of the study area are provided in Section 8.1.

When archaeological resources were identified during the pedestrian survey, the survey transect was decreased to a one-metre interval and spanned a minimal 20 metre radius around identified artifacts. This approach was used to determine if the artifact was an isolated find or part of a larger surface scatter, as per Section 2.1.1 Standard 7 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The identified artifacts were collected, and a Universal Transverse Mercator (UTM) coordinate was taken as per Section 2.1 Standard 4.a of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). In fact, a UTM coordinate was recorded for every identified surface artifact. The Stage 2 surface collection was conducted according to Stage 3 controlled surface pickup (CSP) standards, as allowed by the *Fieldwork: Stage 2 – Frequently Asked Questions* document issued by the MHSTCI (Government of Ontario 2016). Additional UTM coordinates were recorded for each archaeological location in accordance with Section 5.0 Standard 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

The UTM coordinates were taken using ArcGIS Collector powered by ESRI, customized for archaeological survey and assessment, on a handheld mobile device paired with an R1 Receiver to an accuracy of less than one metre. The UTM coordinates are located in zone 17T and are based upon the

North American Datum 1983 (NAD83). A map illustrating the exact site location and a listing of UTM coordinates recorded during the assessment are provided in the Supplementary Documentation to this report.

Approximately 59.6% of the study area was assessed by test pit survey in accordance with Section 2.1.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The portion of the study area subject to test pit survey included areas inaccessible for ploughing, such as manicured lawn, scrubland and grassland, woodlot, livestock pens, and pasture which did not meet the standards or appropriate conditions for pedestrian survey (Section 2.1.2 Standard 1.f. of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* [Government of Ontario 2011]). Many of the livestock pens, pasture, and scrubland and grassland areas were not viable for ploughing due to high rock content, heavy brush, and/or heavy weed growth. Photographs depicting the general high rock content, heavy brush, and/or heavy week growth were not specifically obtained during the Stage 2 survey. Correspondence between Enbridge and applicable landowners confirming field conditions and the non-viable nature of ploughing is included in the Supplementary Documentation to this report.

The test pits were at least 30 centimetres in diameter and excavated five centimetres into sterile subsoil. The soils and test pits were then examined for stratigraphy, cultural features, or evidence of fill. Soil was screened through six millimetre mesh hardware cloth to facilitate the recovery of small artifacts and then used to backfill the pit. During the test pit survey, evidence of previous construction disturbance was noted within Enbridge's existing pipeline easement, particularly above existing buried infrastructure. However, the test pit survey in these areas remained at a five metre interval. Areas with a high rock content or with exposed bedrock were assessed through test pit survey at a 10 metre interval. Overall, approximately 58.2% of the study area was test pit surveyed at a five metre interval and approximately 1.4% of the study area was test pit surveyed at a 10 metre interval. Photographs illustrating the test pit survey of the study area are provided in Section 8.1.

In accordance with Section 2.1.3 Standard 1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), when archaeological resources were encountered during the Stage 2 test pit survey, the test pit excavation continued on the survey grid to determine the extent of further positive test pits. When insufficient archaeological resources were identified to meet the criteria to proceed to Stage 3 archaeological assessment, the archaeological location was intensified in accordance with Section 2.1.3 Standard 2 (Option A) of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). UTM coordinates were recorded for positive test pit locations. Additional UTM coordinates were recorded for each archaeological location in accordance with Section 5.0 Standard 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

Approximately 5.3% of the study area was identified as previously disturbed, including an extensive and artificial berm, extensive grading, paved and gravel laneways, and buried utilities. While these areas were not surveyed, they were photographically documented. Photographs in Section 8.1 confirm that physical features affected the ability to survey portions of the study area in accordance with Section 7.8.6

Standard 1b of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

Approximately 2.2% of the study area was identified as low and permanently wet due to natural watercourses and low-lying areas, intentional landscaping, or municipal drainage projects, and were not surveyed. While these areas were not surveyed, they were photographically documented and photographs in Section 8.1 confirm that physical features affected the ability to survey portions of the study area in accordance with Section 7.8.6 Standard 1.b of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

Approximately 4.2% of the study area had been previously assessed (DPA 2007; Stantec 2016a). Previously assessed portions of the study area were not re-surveyed by Stantec as part of this assessment.

The remaining portion of the study area, approximately 4.9%, was not assessed and retains potential for the identification and documentation of archaeological resources. Access to and appropriate field preparation could not be obtained for these lands during the Stage 2 archaeological assessment. To facilitate the original anticipated construction schedule for the Project, Enbridge requested that these lands be assessed as part of a later and separate archaeological assessment. Thus, while these lands remain a part of the anticipated study area for the Project, they were not assessed or surveyed as part of this Stage 2 archaeological assessment. The lands within the current study area which were not assessed as part of this assessment and report will be documented in a subsequent Stage 2 archaeological assessment.

During the Stage 2 survey, Stantec archaeologists were joined by representatives from the Mississaugas of the Credit First Nation, the Six Nations of the Grand River, and the Haudenosaunee Development Institute. Additional information on the Indigenous Engagement practices conducted during the Stage 2 archaeological assessment is provided in the Record of Indigenous Engagement. The Record of Indigenous Engagement is a separate document submitted to the MHSTCI which may include who was engaged, engagement procedures, dates of engagement, strategies to incorporate community input, and processes for providing results to the community. Similar to sensitive information documented in the Supplementary Documentation (e.g., exact site location, UTM coordinates, etc.), the Record of Indigenous Engagement is provided as a separate document and does not form a part of the *Ontario Public Register of Archaeological Reports.*

3.0 RECORD OF FINDS

The Stage 2 archaeological assessment of the study area was conducted employing the methods described in Section 2.0. An inventory of the documentary record generated by fieldwork is provided in Table 11. Thirty-four new archaeological locations were identified during the Stage 2 survey of the study area. Borden numbers were assigned to identified archaeological locations in accordance with Section 7.12 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Maps illustrating exact site locations do not form part of this public report; they may be found in the Supplementary Documentation.

Table 11: Inventory of Documentary Record

Document Type	Current Location of Document Type	Additional Comments
223 pages of field notes	Stantec office in London, Ontario	In original field book and scanned in project file
1 digital map and data files	Stantec GIS server in Markham, Ontario	Stored digitally on central GIS server
1 map provided by Enbridge	Stantec office in London, Ontario	Hard and digital copies in project file
354 digital photographs	Stantec office in London, Ontario	Stored digitally in project file

The material culture collected during the Stage 2 archaeological survey of the study area is contained in one Bankers box, labeled by Location number, Borden number, and artifact type. The box will be temporarily housed at the Stantec London office until formal arrangements can be made for a transfer to a MHSTCI collections facility.

Chert type identification was accomplished visually using reference materials located in the Stantec London office. Chert is a naturally occurring mineral found in sedimentary rocks that is a granular crystalline form of quartz, composed of cryptocrystalline and microcrystalline crystals (Eley and von Bitter 1989). Raw material acquisition and procurement strategies have long been theorized in academic literature. Some researchers suggest that raw material choices are purely utilitarian (e.g., Deller 1979; Ellis 1989; Parker 1986), while others suggest non-utilitarian reasons (e.g., Hall 1993; Simmons *et al*. 1984). Regardless of the reason, chert type identification and their respective quantities within a particular assemblage provide an opportunity to evaluate numerous archaeological variables, including group mobility and sedentism, lithic reduction strategy and technique, transportation, trade, and symbolism.

Pieces of chipping detritus recovered during the Stage 2 survey of the study area were subject to morphological analysis following the classification scheme described by Lennox *et al*. (1986) and expanded upon by Fisher (1997). Primary flakes feature dorsal surfaces that are either entirely covered with cortex or have substantial visible cortex present. Secondary flakes can also have a trace of cortex on the dorsal surface. Both varieties, along with shatter, are associated with early stages of lithic reduction as chert cores or flint nodules are converted into blanks or preforms. Tertiary flakes and micro flakes are produced during the further reduction of blanks and preforms into formal tool shapes. They are the result of precise flake removal through pressure flaking, where the maker applies direct pressure onto a specific

part of the tool in order to facilitate flake removal. Pressure flaking generally produces smaller, thinner flakes than does percussion flaking. Broadly, primary, secondary, and shatter flakes indicate early stages of lithic reduction, while tertiary and micro flakes indicate later stages of the reduction sequence.

3.1 LOCATION 1

Location 1 was identified during pedestrian survey of a ploughed agricultural field, comprising four surface finds. A narrow (less than five-metre-wide) grassy strip bisects Location 1. A single positive test pit was identified within the grassy strip and yielded one artifact. Intensification around the positive test pit was completed and included eight cardinal test pits and a test unit. One further artifact was yielded from the test unit.

Overall, Location 1 comprises six Indigenous artifacts from an area of approximately 35 metres (m) by 45 m. The artifact assemblage comprises five pieces of chipping detritus and one utilized flake. All five pieces of recovered chipping detritus from Location 1 are tertiary flakes of Onondaga chert.

One utilized flake of Onondaga chert was recovered from Location 1 during the Stage 2 assessment of Location 1. Utilized flakes, along with other expedient tool types such as retouched flakes, wedges, and perforators, are chipping detritus that show evidence of expedient use and are considered informal tools that were discarded after use.

Table 12 provides the complete catalogue (Cat.) of the Stage 2 artifact assemblage recovered from Location 1. Plate 1 depicts a sample of the artifacts recovered from Location 1.

Table 12: Location 1 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comment
1	Test pit 1	0.29	Chipping detritus	1	Onondaga	Tertiary
2	CSP 2	0.0	Chipping detritus	1	Onondaga	Tertiary
3	CSP 3	0.0	Chipping detritus	1	Onondaga	Tertiary
4	CSP 4	0.0	Utilized flake	1	Onondaga	Use wear on lateral edge, dorsal and ventral sides
5	CSP 1	0.0	Chipping detritus	1	Onondaga	Tertiary
6	Test unit 1	0.32	Chipping detritus	1	Onondaga	Tertiary

3.2 LOCATION 2

Location 2 was identified during the pedestrian survey of a ploughed agricultural field and comprises one Indigenous artifact, a utilized flake of Onondaga chert. Table 13 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 2. The recovered artifact is illustrated on Plate 2 in Section 8.2.

Table 13: Location 2 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	CSP 1	0.0	Utilized flake	1	Onondaga	Burnt, use wear on one lateral edge and distal end, dorsal side

3.3 LOCATION 3

Location 3 was identified during the pedestrian survey of a ploughed agricultural field and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Table 14 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 3. The recovered artifact is illustrated on Plate 3 in Section 8.2.

Table 14: Location 3 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	CSP 1	0.0	Chipping detritus	1	Onondaga	Tertiary

3.4 LOCATION 4

Location 4 was identified during the pedestrian survey of a ploughed agricultural field and comprises one Indigenous artifact, an end scraper of indeterminate chert. Scrapers are formal lithic tools that exhibit intentional flaking along one or more margins to produce a high-angle use wear edge. The scraper from Location 4 measures 17.3 millimetres (mm) in length, 17.7 mm in width, and 7.5 mm in thickness. Table 15 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 4. The recovered artifact is illustrated on Plate 4 in Section 8.2.

Table 15: Location 4 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	CSP 1	0.0	Scraper	1	Indeterminate	End scraper; length (L) = 17.3 mm, width (W) = 17.7 mm, thickness (TH) = 7.5 mm

3.5 LOCATION 5

Location 5 was identified during the pedestrian survey of a ploughed agricultural field and comprises three Indigenous artifacts: two primary flakes of Onondaga chert and one tertiary flake of Onondaga chert. The artifacts were identified in an area measuring approximately five m by 15 m. Table 16 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 5. A sample of the recovered artifacts from Location 5 is illustrated on Plate 5 in Section 8.2.

Table 16: Location 5 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	CSP 1	0.0	Chipping detritus	1	Onondaga	Primary
2	CSP 2	0.0	Chipping detritus	1	Onondaga	Primary
3	CSP 3	0.0	Chipping detritus	1	Onondaga	Tertiary

3.6 LOCATION 6

Location 6 was identified during the pedestrian survey of a ploughed agricultural field and comprises one Indigenous artifact, a secondary flake of Onondaga chert. Table 17 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 6. The recovered artifact is illustrated on Plate 6 in Section 8.2.

Table 17: Location 6 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	CSP 1	0.0	Chipping detritus	1	Onondaga	Secondary

3.7 LOCATION 7

Location 7 was identified during the pedestrian survey of a ploughed agricultural field and comprises one Indigenous artifact, a biface fragment manufactured from Onondaga chert. Bifaces are formal lithic artifacts which exhibit intentional flaking on both surfaces and flaking along the margins to create a preform or blank. Bifaces are the most common form of Indigenous lithic tool and can be manufactured into a variety of tools with different functions. Due to the long span of use of this tool type, bifaces cannot be used to determine the cultural affiliation or time period of the occupation of a site. Table 18 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 7. The recovered artifact is illustrated on Plate 7 in Section 8.2.

Table 18: Location 7 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	CSP 1	0.0	Biface	1	Onondaga	Fragment; L=17.9mm*, W=21.1mm*, TH=9.5mm*

* measurement taken on an incomplete specimen

3.8 LOCATION 8

Location 8 was identified during test pit survey and comprises one Indigenous artifact, an exhausted T-based drill fragment manufactured from Onondaga chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 19

provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 8. The recovered artifact is illustrated on Plate 8 in Section 8.2.

Table 19: Location 8 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.52	Drill	1	Onondaga	Fragment of T-base drill; L=17.7*mm, W=18.0*mm, TH=6.0*mm

* measurement taken on an incomplete specimen

3.9 LOCATION 9

Location 9 was identified during test pit survey and comprises two Indigenous artifacts, two tertiary flakes of Onondaga chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 20 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 9. The recovered artifacts are illustrated on Plate 9 in Section 8.2.

Table 20: Location 9 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.57	Chipping detritus	1	Onondaga	Tertiary
2	Test pit 1	0.57	Chipping detritus	1	Onondaga	Tertiary

3.10 LOCATION 10

Location 10 was identified during the pedestrian survey of a ploughed agricultural field and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Table 21 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 10. The recovered artifact is illustrated on Plate 10 in Section 8.2.

Table 21: Location 10 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	CSP 1	0.0	Chipping detritus	1	Onondaga	Tertiary

3.11 LOCATION 11

Location 11 was identified during test pit survey and comprises two Indigenous artifacts: one utilized flake of Onondaga chert and one retouched flake of Onondaga chert. Location 11 is represented by two positive test pits located approximately 22 m apart. Intensification around each positive test pit, including eight cardinal test pits and a test unit, was completed and yielded no further archaeological resources.

Table 22 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 11. The recovered artifacts are illustrated on Plate 11 in Section 8.2.

Table 22: Location 11 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.41	Retouched flake	1	Onondaga	Retouch on both lateral edge, dorsal side
2	Test pit 2	0.64	Utilized flake	1	Onondaga	Use wear on lateral edge, ventral side

3.12 LOCATION 12 (AiHa-60)

Location 12 (AiHa-60) was identified during the test pit survey of an area of nursery stock associated with an existing retail/commercial landscaping company. It is represented by eight positive test pits from an area measuring approximately 15 m by 45 m and yielded nine Indigenous artifacts: four tertiary flakes of Onondaga chert, three broken flakes of an indeterminate burnt chert, one broken flake of Onondaga chert, and one utilized flake of Onondaga chert. Further intensification around the positive test pits was not conducted. In addition, two tertiary flakes of Onondaga chert were identified and collected from the ground surface at Location 12 (AiHa-60). Table 23 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 12 (AiHa-60). A sample of the recovered artifacts is illustrated on Plate 12 in Section 8.2.

Table 23: Location 12 (AiHa-60) Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.65	Chipping detritus	1	Onondaga	Tertiary
2	Test pit 2	0.72	Chipping detritus	1	Burnt	Broken
3	Test pit 3	0.82	Chipping detritus	1	Burnt	Broken
4	Test pit 3	0.82	Chipping detritus	1	Onondaga	Broken
5	Test pit 4	0.98	Chipping detritus	1	Burnt	Broken
6	Test pit 5	0.53	Utilized flake	1	Onondaga	Use wear on lateral edge, ventral side
7	Test pit 6	0.66	Chipping detritus	1	Onondaga	Tertiary
8	Test pit 7	0.79	Chipping detritus	1	Onondaga	Tertiary
9	Test pit 8	0.85	Chipping detritus	1	Onondaga	Tertiary
10	CSP 1	0.0	Chipping detritus	1	Onondaga	Tertiary
11	CSP 2	0.0	Chipping detritus	1	Onondaga	Tertiary

3.13 LOCATION 13 (AiHa-61)

Location 13 (AiHa-61) was identified during test pit survey and comprises six Indigenous artifacts: five tertiary flakes of Onondaga chert and one tertiary flake of indeterminate chert. The site is represented by four positive test pits from an area measuring approximately 10 m by 10 m. Further intensification around the positive test pits was not conducted. Table 24 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 13 (AiHa-61). A sample of the recovered artifacts are illustrated on Plate 13 in Section 8.2.

Table 24: Location 13 (AiHa-61) Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comment
1	Test pit 1	0.36	Chipping detritus	2	Onondaga	Tertiary
2	Test pit 2	0.45	Chipping detritus	1	Onondaga	Tertiary
3	Test pit 3	0.47	Chipping detritus	1	Onondaga	Tertiary
4	Test pit 4	0.51	Chipping detritus	1	Onondaga	Tertiary
5	Test pit 4	0.51	Chipping detritus	1	Indeterminate	Tertiary

3.14 LOCATION 14

Location 14 was identified during test pit survey and comprises one Indigenous artifact, a utilized flake of Onondaga chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 25 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 14. The recovered artifact is illustrated on Plate 14 in Section 8.2.

Table 25: Location 14 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.43	Utilized flake	1	Onondaga	Use wear on one lateral edge, dorsal side

3.15 LOCATION 15

Location 15 was identified during test pit survey and comprises two Indigenous artifacts: one tertiary flake of Onondaga chert and one broken flake of indeterminate chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded one archaeological resource (the broken flake of indeterminate chert). Table 26 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 15. The recovered artifacts are illustrated on Plate 15 in Section 8.2.



Table 26: Location 15 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.40	Chipping detritus	1	Onondaga	Tertiary
2	Test pit 1 – southeast cardinal	0.38	Chipping detritus	1	Indeterminate	Broken

3.16 LOCATION 16

Location 16 was identified during test pit survey and comprises two Indigenous artifacts: one secondary flake of Onondaga chert and one retouched flake of Onondaga chert. Location 16 is represented by two positive test pits located approximately five m apart. Intensification around each positive test pit, including eight cardinal test pits and a test unit, was completed and yielded no further archaeological resources. Table 27 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 16. The recovered artifacts are illustrated on Plate 16 in Section 8.2.

Table 27: Location 16 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.37	Chipping detritus	1	Onondaga	Secondary
1	Test pit 2	0.41	Retouched flake	1	Onondaga	Retouch on one lateral edge, dorsal side, and opposite lateral edge, ventral side

3.17 LOCATION 17

Location 17 was identified during test pit survey and comprises one Indigenous artifact, a tertiary flake of indeterminate chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 28 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 17. The recovered artifact is illustrated on Plate 17 in Section 8.2.

Table 28: Location 17 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.84	Chipping detritus	1	Indeterminate	Tertiary

3.18 LOCATION 18

Location 18 was identified during test pit survey and comprises two Indigenous artifacts: one tertiary flake of Onondaga chert and one broken flake of indeterminate chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 29 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 18. The recovered artifact is illustrated on Plate 18 in Section 8.2.

Table 29: Location 18 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.82	Chipping detritus	1	Onondaga	Tertiary
2	Test pit 1	0.82	Chipping detritus	1	Indeterminate	Broken

3.19 LOCATION 19

Location 19 was identified during test pit survey and is represented by two positive test pits approximately 10 m apart. Each positive test pit yielded a broken flake of Onondaga chert. Further intensification around the positive test pits yielded one tertiary flake of Onondaga from the west cardinal of test pit 1 and one tertiary flake of Onondaga from the test unit excavated at test pit 2. Table 30 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 19. A sample of the recovered artifacts is illustrated on Plate 19 in Section 8.2.

Table 30: Location 19 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comment
1	Test pit 1	0.38	Chipping detritus	1	Onondaga	Broken
2	Test pit 2	0.41	Chipping detritus	1	Onondaga	Broken
3	Test pit 1 – west cardinal	0.37	Chipping detritus	1	Onondaga	Tertiary
4	Test unit 2	0.43	Chipping detritus	1	Onondaga	Tertiary

3.20 LOCATION 20 (AiHa-62)

Location 20 (AiHa-62) was identified during test pit survey and is represented by two positive test pits approximately five m apart. Test pit 1 yielded a broken projectile point of Onondaga chert and test pit 2 yielded a tertiary flake of Onondaga chert. Further intensification around the positive test pits was not conducted.

Overall, the projectile point measures 25.7 mm in length, 19.5 mm in width, and 5.3 mm in thickness. It has a base width of 13.3 mm, a neck width of 8.6 mm, and a haft length of 5.9 mm. The edges of the

blade appear to be serrated. Given the above characteristics, the point has been identified as a Nettling type projectile point, typical of the Early Archaic, *circa* 8000 – 6000 BCE (Ellis *et al*. 1990).

Table 30 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 20 (AiHa-62). The recovered artifacts are illustrated on Plate 20 in Section 8.2.

Table 31: Location 20 (AiHa-62) Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.51	Projectile point	1	Onondaga	Nettling point. Missing tip and partial midsection. Length=25.7*mm, Width=19.5mm, Thickness=5.3mm, base width=13.3mm, Neck Width=8.6mm, Haft Length=5.9mm
2	Test pit 2	0.43	Chipping detritus	1	Onondaga	Tertiary

* measurement taken on an incomplete specimen

3.21 LOCATION 21 (AiHa-63)

Location 21 (AiHa-63) was identified during test pit survey and comprises two Indigenous artifacts: one broken flake of Onondaga chert and one fragmentary sherd of pottery. Further intensification around the positive test pit was not conducted. Table 32 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 21 (AiHa-63). The recovered artifacts are illustrated on Plate 21 in Section 8.2.

Table 32: Location 21 (AiHa-63) Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.45	Chipping detritus	1	Onondaga	Broken
2	Test pit 1	0.45	Fragmentary sherd	1	Not applicable	None

3.22 LOCATION 22

Location 22 was identified during test pit survey and comprises one Indigenous artifact, a broken flake of Onondaga chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 33 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 22. The recovered artifact is illustrated on Plate 22 in Section 8.2.

Table 33: Location 22 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.67	Chipping detritus	1	Onondaga	Broken

3.23 LOCATION 23

Location 23 was identified during test pit survey and comprises one Indigenous artifact, a broken flake of Onondaga chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 34 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 23. The recovered artifact is illustrated on Plate 23 in Section 8.2.

Table 34: Location 23 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.91	Chipping detritus	1	Onondaga	Broken

3.24 LOCATION 24

Location 24 was identified during test pit survey and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 35 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 24. The recovered artifact is illustrated on Plate 24 in Section 8.2.

Table 35: Location 24 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	1.07	Chipping detritus	1	Onondaga	Tertiary

3.25 LOCATION 25

Location 25 was identified during test pit survey and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 36 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 25. The recovered artifact is illustrated on Plate 25 in Section 8.2.

Table 36: Location 25 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	1.02	Chipping detritus	1	Onondaga	Tertiary

3.26 LOCATION 26 (AiHa-64)

Location 26 (AiHa-64) was identified during test pit survey and comprises three Indigenous artifacts, each a fragmentary sherd of pottery. Further intensification around the positive test pit was not conducted. Table 37 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 26 (AiHa-64). A sample of the recovered artifacts is illustrated on Plate 26 in Section 8.2.

Table 37: Location 26 (AiHa-64) Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.49	Fragmentary sherd	3	Not applicable	None

3.27 LOCATION 27

Location 27 was identified during test pit survey and comprises three Indigenous artifacts: two broken flakes of Onondaga chert and one tertiary flake of Onondaga chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded two artifacts from the test unit (the two broken flakes of Onondaga chert). Table 38 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 27. A sample of the recovered artifacts is illustrated on Plate 27 in Section 8.2.

Table 38: Location 27 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.24	Chipping detritus	1	Onondaga	Tertiary
2	Test unit 1	0.28	Chipping detritus	2	Onondaga	Broken

3.28 LOCATION 28 (AiHa-65)

Location 28 (AiHa-65) was identified during test pit survey and comprises seven Indigenous artifacts: three tertiary flakes of Onondaga chert, three tertiary flakes of indeterminate chert, and one broken flake of Onondaga chert exhibiting thermal alteration. The site is represented by four positive test pits from an area measuring approximately 10 m by 25 m. Further intensification around the positive test pits was not conducted. Table 39 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 28 (AiHa-65). A sample of the recovered artifacts are illustrated on Plate 28 in Section 8.2.

Table 39: Location 28 (AiHa-65) Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.39	Chipping detritus	1	Onondaga	Tertiary
2	Test pit 1	0.39	Chipping detritus	1	Indeterminate	Tertiary
3	Test pit 2	0.50	Chipping detritus	1	Onondaga	Tertiary
4	Test pit 2	0.50	Chipping detritus	1	Indeterminate	Tertiary
5	Test pit 3	0.48	Chipping detritus	1	Onondaga	Tertiary

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
6	Test pit 4	0.34	Chipping detritus	1	Onondaga	Broken; burnt
7	Test pit 4	0.34	Chipping detritus	1	Indeterminate	Tertiary

3.29 LOCATION 29

Location 29 was identified during test pit survey and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 40 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 29. The recovered artifact is illustrated on Plate 29 in Section 8.2.

Table 40: Location 29 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.41	Chipping detritus	1	Onondaga	Tertiary

3.30 LOCATION 30

Location 30 was identified during test pit survey and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 41 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 30. The recovered artifact is illustrated on Plate 30 in Section 8.2.

Table 41: Location 30 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.28	Chipping detritus	1	Onondaga	Tertiary

3.31 LOCATION 31 (AiHa-66)

Location 31 (AiHa-66) was identified during test pit survey and comprises 23 Indigenous artifacts: 15 tertiary flakes of Onondaga chert, 7 broken flakes of Onondaga chert, and 1 tertiary flake of an indeterminate chert. The site was initially identified from a single positive test pit containing one tertiary flake. Intensification around the positive test pit included excavation of only five cardinal test pits. The remaining three cardinal test pits were not excavated as the limits of the study area prevented further westerly expansion from the original positive test pit. A test unit was excavated as part of the intensification efforts at Location 31 (AiHa-66) and yielded an additional 22 artifacts. Table 42 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 31 (AiHa-66). A sample of the recovered artifacts is illustrated on Plate 31 in Section 8.2.



Table 42: Location 31 (AiHa-66) Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.30	Chipping detritus	1	Onondaga	Tertiary
2	Test unit 1	0.32	Chipping detritus	14	Onondaga	Tertiary
3	Test unit 1	0.32	Chipping detritus	7	Onondaga	Broken
4	Test unit 1	0.32	Chipping detritus	1	Burnt	Tertiary

3.32 LOCATION 32

Location 32 was identified during test pit survey and comprises one Indigenous artifact, a broken flake of Onondaga chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 43 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 32. The recovered artifact is illustrated on Plate 32 in Section 8.2.

Table 43: Location 32 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.36	Chipping detritus	1	Onondaga	Broken

3.33 LOCATION 33

Location 32 was identified during test pit survey and comprises five pieces of turtle shell. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 44 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 33. A sample of the recovered artifacts is illustrated on Plate 33 in Section 8.2.

Table 44: Location 33 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.57	Faunal remains	5	Not applicable	Turtle shell fragments

3.34 LOCATION 34

Location 34 was identified during test pit survey and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Intensification around the positive test pit, including eight cardinal test pits and a test unit, yielded no further archaeological resources. Table 45 provides the complete catalogue of the Stage 2 artifact assemblage recovered from Location 34. The recovered artifact is illustrated on Plate 34 in Section 8.2.

Table 45: Location 34 Artifact Catalogue

Cat. #	Context	Depth (m)	Artifact	Quantity	Chert	Comments
1	Test pit 1	0.82	Chipping detritus	1	Onondaga	Tertiary

4.0 ANALYSIS AND CONCLUSIONS

Stantec was retained by Enbridge to conduct a Stage 2 archaeological assessment for the study area associated with the Project. The Stage 2 archaeological assessment was conducted between May 8, 2020 and November 20, 2020. During the Stage 2 survey, 34 new archaeological locations were identified.

4.1 LOCATION 1

Location 1 was identified during pedestrian survey of a ploughed agricultural field and comprises six Indigenous artifacts from an area of approximately 35 m by 45 m. The artifact assemblage comprises five pieces of chipping detritus and one utilized flake. All five pieces of recovered chipping detritus from Location 1 are tertiary flakes of Onondaga chert. Chipping detritus is the waste product from the production of lithic tools and is the most often recovered artifact on Indigenous archaeological sites in southern Ontario. Chipping detritus and expedient tools, such as utilized flakes, are generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifacts, the cultural heritage value or interest of Location 1 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.2 LOCATION 2

Location 2 was identified during the pedestrian survey of a ploughed agricultural field and comprises one Indigenous artifact, a utilized flake of Onondaga chert. Chipping detritus is the waste product from the production of lithic tools and is the most often recovered artifact on Indigenous archaeological sites in southern Ontario. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 2 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.3 LOCATION 3

Location 3 was identified during the pedestrian survey of a ploughed agricultural field and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Chipping detritus is the waste product from the production of lithic tools and is the most often recovered artifact on Indigenous archaeological sites in southern Ontario. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural

heritage value or interest of Location 3 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.4 LOCATION 4

Location 4 was identified during the pedestrian survey of a ploughed agricultural field and comprises one Indigenous artifact, an end scraper of indeterminate chert. Though the end scraper is recognized as a formal lithic tool it is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 4 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.5 LOCATION 5

Location 5 was identified during the pedestrian survey of a ploughed agricultural field and comprises three Indigenous artifacts: two primary flakes of Onondaga and one tertiary flake of Onondaga. The artifacts were identified in an area measuring approximately five m by 15 m. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifacts, the cultural heritage value or interest of Location 5 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.6 LOCATION 6

Location 6 was identified during the pedestrian survey of a ploughed agricultural field and comprises one Indigenous artifact, a secondary flake of Onondaga chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 6 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.7 LOCATION 7

Location 7 was identified during the pedestrian survey of a ploughed agricultural field and comprises one Indigenous artifact, a biface fragment manufactured from Onondaga chert. Bifaces are the most common form of Indigenous lithic tool and can be manufactured into a variety of tools with different functions. Due to the long span of use of this tool type, bifaces cannot be used to determine the cultural affiliation or time period of the occupation of a site. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 7 is judged to be sufficiently documented in accordance

with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.8 LOCATION 8

Location 8 was identified during test pit survey and comprises one Indigenous artifact, an exhausted T-based drill fragment manufactured from Onondaga chert. Though the drill is recognized as a formal lithic tool, it is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 8 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.9 LOCATION 9

Location 9 was identified during test pit survey and comprises two Indigenous artifacts, two tertiary flakes of Onondaga chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifacts, the cultural heritage value or interest of Location 9 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.10 LOCATION 10

Location 10 was identified during the pedestrian survey of a ploughed agricultural field and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 10 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.11 LOCATION 11

Location 11 was identified during test pit survey and comprises two Indigenous artifacts: one utilized flake of Onondaga chert and one retouched flake of Onondaga chert. Location 11 is represented by two positive test pits located approximately 22 m apart. Chipping detritus is the waste product from the production of lithic tools and is the most often recovered artifact on Indigenous archaeological sites in southern Ontario. Expedient tools, such as utilized flakes and retouched flakes, are generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifacts, the cultural heritage value or interest of Location 11 is judged to be

sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.12 LOCATION 12 (AiHa-60)

Location 12 (AiHa-60) was identified during test pit survey of an area of nursery stock associated with an existing retail/commercial landscaping company. It is represented by eight positive test pits from an area measuring approximately 15 m by 45 m and yielded nine Indigenous artifacts: four tertiary flakes of Onondaga chert, three broken flakes of an indeterminate burnt chert, one broken flake of Onondaga chert, and one utilized flake of Onondaga chert. Based on the above, Location 12 (AiHa-60) is judged to retain further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(2) and Section 2.2 Guideline 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.13 LOCATION 13 (AiHa-61)

Location 13 (AiHa-61) was identified during test pit survey and comprises six Indigenous artifacts: five tertiary flakes of Onondaga chert and one tertiary flake of indeterminate chert. The site is represented by four positive test pits from an area measuring approximately 10 m by 10 m. Based on the above, Location 13 (AiHa-61) is judged to retain further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(2) of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.14 LOCATION 14

Location 14 was identified during test pit survey and comprises one Indigenous artifact, a utilized flake of Onondaga chert. Expedient tools, such as utilized flakes, are generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 14 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.15 LOCATION 15

Location 15 was identified during test pit survey and comprises two Indigenous artifacts: one tertiary flake of Onondaga chert and one broken flake of indeterminate chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifacts, the cultural heritage value or interest of Location 15 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.16 LOCATION 16

Location 16 was identified during test pit survey and comprises two Indigenous artifacts: one secondary flake of Onondaga chert and one retouched flake of Onondaga chert. Location 16 is represented by two positive test pits located approximately five m apart. Chipping detritus and expedient tools, such as retouched flakes, are generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifacts, the cultural heritage value or interest of Location 16 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.17 LOCATION 17

Location 17 was identified during test pit survey and comprises one Indigenous artifact, a tertiary flake of indeterminate chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 17 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.18 LOCATION 18

Location 18 was identified during test pit survey and comprises two Indigenous artifacts: one tertiary flake of Onondaga chert and one broken flake of indeterminate chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifacts, the cultural heritage value or interest of Location 18 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.19 LOCATION 19

Location 19 was identified during test pit survey and is represented by two positive test pits approximately 10 m apart. Each positive test pit yielded a broken flake of Onondaga chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifacts, the cultural heritage value or interest of Location 19 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.20 LOCATION 20 (AiHa-62)

Location 20 (AiHa-62) was identified during test pit survey and is represented by two positive test pits approximately five m apart. Test pit 1 yielded a broken projectile point of Onondaga chert and test pit 2 yielded a tertiary flake of Onondaga chert. The point has been identified as Nettling projectile point, typical of the Early Archaic, *circa* 8000 – 6000 BCE (Ellis *et al*. 1990). Based on the above, Location 20 (AiHa-62) is judged to retain further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(1) and Standard 1.b.iii of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.21 LOCATION 21 (AiHa-63)

Location 21 (AiHa-63) was identified during test pit survey and comprises two Indigenous artifacts: one broken flake of Onondaga chert and one fragmentary sherd of pottery. Based on the above, Location 21 (AiHa-63) is judged to retain further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.b.i of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.22 LOCATION 22

Location 22 was identified during test pit survey and comprises one Indigenous artifact, a broken flake of Onondaga chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 22 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.23 LOCATION 23

Location 23 was identified during test pit survey and comprises one Indigenous artifact, a broken flake of Onondaga chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 23 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.24 LOCATION 24

Location 24 was identified during test pit survey and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time

period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 24 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.25 LOCATION 25

Location 25 was identified during test pit survey and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 25 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.26 LOCATION 26 (AiHa-64)

Location 26 (AiHa-64) was identified during test pit survey and comprises three fragmentary sherds of Indigenous pottery. Based on the above, Location 26 (AiHa-64) is judged to retain further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.b.i of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.27 LOCATION 27

Location 27 was identified during test pit survey and comprises three Indigenous artifacts: two broken flakes of Onondaga chert and one tertiary flake of Onondaga chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifacts, the cultural heritage value or interest of Location 27 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.28 LOCATION 28 (AiHa-65)

Location 28 (AiHa-65) was identified during test pit survey and comprises seven Indigenous artifacts: three tertiary flakes of Onondaga chert, three tertiary flakes of indeterminate chert, and one broken flake of Onondaga chert exhibiting thermal alteration. The site is represented by four positive test pits from an area measuring approximately 10 m by 25 m. Based on the above, Location 28 (AiHa-65) is judged to retain further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(2) and Section 2.2 Guideline 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.29 LOCATION 29

Location 29 was identified during test pit survey and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 29 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.30 LOCATION 30

Location 30 was identified during test pit survey and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 30 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.31 LOCATION 31 (AiHa-66)

Location 31 (AiHa-66) was identified during test pit survey and comprises 23 Indigenous artifacts: 15 tertiary flakes of Onondaga chert, 7 broken flakes of Onondaga chert, and 1 tertiary flake of an indeterminate chert. The site was initially identified from a single positive test pit containing one tertiary flake. A test unit was excavated as part of the intensification efforts at Location 31 (AiHa-66) and yielded the additional 22 archaeological resources. Based on the above, Location 31 (AiHa-66) is judged to retain further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(2) of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.32 LOCATION 32

Location 32 was identified during test pit survey and comprises one Indigenous artifact, a broken flake of Onondaga chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 32 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.33 LOCATION 33

Location 32 was identified during test pit survey and comprises five pieces of turtle shell. Location 32 is located approximately 10 m west of Spencer Creek. The pieces of turtle shell may represent natural deposition. Given the temporally non-diagnostic nature of the recovered artifacts, the cultural heritage value or interest of Location 33 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.34 LOCATION 34

Location 34 was identified during test pit survey and comprises one Indigenous artifact, a tertiary flake of Onondaga chert. Chipping detritus is generally considered to be temporally non-diagnostic other than being produced by Indigenous peoples and cannot help place an archaeological site within a specific time period or cultural group. Given the temporally non-diagnostic nature of the recovered artifact, the cultural heritage value or interest of Location 32 is judged to be sufficiently documented in accordance with Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.35 PRELIMINARY INDICATION OF SITES REQUIRING STAGE 4 MITIGAITON

This preliminary indication of whether any site could be eventually recommended for Stage 4 archaeological mitigation is required under as per Section 7.8.3 Standard 2.c of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). No firm recommendation for or against Stage 4 mitigation will be made until the Stage 3 archaeological assessment has been completed at each applicable site, whether as part of the Project or at a later date. Possible Stage 4 recommendations along with a reason are provided in Table 46.

Table 46: Possible Stage 4 Mitigation of Impacts Recommendations

Location Number	Borden Number	Cultural Affiliation	Possible Stage 4?	Reason
12	AiHa-60	Indigenous	Maybe	Artifact yields from Stage 3 test units may require mitigation of impacts in accordance with Section 3.4.1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).
13	AiHa-61	Indigenous	Maybe	Artifact yields from Stage 3 test units may require mitigation of impacts in accordance with Section 3.4.1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).
20	AiHa-62	Indigenous, Early Archaic	Yes	The cultural heritage value or interest of the site is likely to meet the criteria as a rare archaeological site as per Section 3.4 Standard 1.b of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of

Location Number	Borden Number	Cultural Affiliation	Possible Stage 4?	Reason
				Ontario 2011). Further, artifact yields from Stage 3 test units may require mitigation of impacts in accordance with Section 3.4.1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).
21	AiHa-63	Indigenous	Yes	The cultural heritage value or interest of the site is likely to meet the criteria as a Woodland period archaeological site as per Section 3.4 Standard 1.e of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Further, artifact yields from Stage 3 test units may require mitigation of impacts in accordance with Section 3.4.1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).
26	AiHa-64	Indigenous	Yes	The cultural heritage value or interest of the site is likely to meet the criteria as a Woodland period archaeological site as per Section 3.4 Standard 1.e of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Further, artifact yields from Stage 3 test units may require mitigation of impacts in accordance with Section 3.4.1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).
28	AiHa-65	Indigenous	Maybe	Artifact yields from Stage 3 test units may require mitigation of impacts in accordance with Section 3.4.1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).
31	AiHa-66	Indigenous	Yes	Artifact yields from Stage 3 test units is likely to require mitigation of impacts in accordance with Section 3.4.1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

4.36 ADDITIONAL CONCLUSIONS

In all other portions of the study area which had been subject to Stage 2 survey as part of this assessment, no archaeological resources were identified.

However, as noted in Section 2.0, a portion of the study area (approximately 4.9%), was not subject to Stage 2 assessment and retains potential for the identification and documentation of archaeological resources. In accordance with Section 1.3.1 and Section 7.7.4 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), and following Stantec's original recommendations (Stantec 2019), these areas retain archaeological potential and Stage 2 assessment is required.

5.0 RECOMMENDATIONS

5.1 LOCATION 1

Location 1 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 1 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 1**.

5.2 LOCATION 2

Location 2 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 2 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 2**.

5.3 LOCATION 3

Location 3 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 3 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 3**.

5.4 LOCATION 4

Location 4 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 4 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 4**.

5.5 LOCATION 5

Location 5 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 5 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 5**.

5.6 LOCATION 6

Location 6 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 6 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 6**.

5.7 LOCATION 7

Location 7 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 7 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 7**.

5.8 LOCATION 8

Location 8 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 8 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 8**.

5.9 LOCATION 9

Location 9 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 9 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 9**.

5.10 LOCATION 10

Location 10 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 10 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 10**.

5.11 LOCATION 11

Location 11 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 11 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 11**.

5.12 LOCATION 12 (AiHa-60)

Location 12 (AiHa-60) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(2) and Section 2.2 Guideline 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Therefore, **Stage 3 archaeological assessment is recommended for Location 12 (AiHa-60) to further evaluate the site's cultural heritage value or interest**.

The Stage 3 archaeological assessment of Location 12 (AiHa-60) will be conducted according to the procedures outlined in the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A controlled surface pickup (CSP) is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.13 LOCATION 13 (AiHa-61)

Location 13 (AiHa-61) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(2) of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Therefore, **Stage 3 archaeological assessment is recommended for Location 13 (AiHa-61) to further evaluate the site's cultural heritage value or interest**.

The Stage 3 archaeological assessment of Location 13 (AiHa-61) will be conducted according to the procedures outlined in the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A CSP is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.14 LOCATION 14

Location 14 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 14 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 14**.

5.15 LOCATION 15

Location 15 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 15 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 15**.

5.16 LOCATION 16

Location 16 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 16 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 16**.

5.17 LOCATION 17

Location 17 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 17 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 17**.

5.18 LOCATION 18

Location 18 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 18 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 18**.

5.19 LOCATION 19

Location 19 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 19 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 19**.

5.20 LOCATION 20 (AiHa-62)

Location 20 (AiHa-62) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(1) and Standard 1.b.iii of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Therefore, **Stage 3 archaeological assessment is recommended for Location 20 (AiHa-62) to further evaluate the site's cultural heritage value or interest**.

The Stage 3 archaeological assessment of Location 20 (AiHa-62) will be conducted according to the procedures outlined in the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A CSP is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. As the site includes an Early Archaic component, a sample of the soil from the test units will be screened through three millimetre mesh in accordance with Section 3.2.2 Standard 7 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.21 LOCATION 21 (AiHa-63)

Location 21 (AiHa-63) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.b.i of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Therefore, **Stage 3 archaeological assessment is recommended for Location 21 (AiHa-63) to further evaluate the site's cultural heritage value or interest**.

The Stage 3 archaeological assessment of Location 21 (AiHa-63) will be conducted according to the procedures outlined in the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A CSP is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts

will be recorded and catalogued by the corresponding grid unit designation. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.22 LOCATION 22

Location 22 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 22 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 22**.

5.23 LOCATION 23

Location 23 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 23 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 23**.

5.24 LOCATION 24

Location 24 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 24 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 24**.

5.25 LOCATION 25

Location 25 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 25 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 25**.

5.26 LOCATION 26 (AiHa-64)

Location 26 (AiHa-64) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.b.i of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Therefore, **Stage 3**

archaeological assessment is recommended for Location 26 (AiHa-64) to further evaluate the site's cultural heritage value or interest.

The Stage 3 archaeological assessment of Location 26 (AiHa-64) will be conducted according to the procedures outlined in the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A CSP is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.27 LOCATION 27

Location 27 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 27 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 27**.

5.28 LOCATION 28 (AiHa-65)

Location 28 (AiHa-65) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(2) and Section 2.2 Guideline 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Therefore, **Stage 3 archaeological assessment is recommended for Location 28 (AiHa-65) to further evaluate the site's cultural heritage value or interest**.

The Stage 3 archaeological assessment of Location 28 (AiHa-65) will be conducted according to the procedures outlined in the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A CSP is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. If a subsurface cultural

feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.29 LOCATION 29

Location 29 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 29 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 29**.

5.30 LOCATION 30

Location 30 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 30 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 30**.

5.31 LOCATION 31 (AiHa-66)

Location 31 (AiHa-66) retains further cultural heritage value or interest and fulfills the criteria for Stage 3 archaeological assessment as per Section 2.2 Standard 1.a.ii.(2) of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Therefore, **Stage 3 archaeological assessment is recommended for Location 31 (AiHa-66) to further evaluate the site's cultural heritage value or interest**.

The Stage 3 archaeological assessment of Location 31 (AiHa-66) will be conducted according to the procedures outlined in the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The Stage 3 archaeological assessment will include the hand excavation of one-metre by one-metre test units every five metres in systematic levels and into the first five centimetres of subsoil. A CSP is not required as the site is located in an area inaccessible for ploughing. Additional one-metre test units, amounting to 20% of the grid total, will be placed in areas of interest within the site extent. Excavated soil will be screened through six millimetre mesh and recovered artifacts will be recorded and catalogued by the corresponding grid unit designation. If a subsurface cultural feature is encountered, the plan of the exposed feature will be recorded, and geotextile fabric will be placed over the unit before backfilling the unit.

Further, in accordance with Section 3.4 Standard 2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), Indigenous communities must be engaged during Stage 3 activities when assessing the cultural heritage value or interest of an Indigenous archaeological site. Early engagement will help to formulate a strategy to effectively mitigate the impacts to the archaeological site through avoidance and protection or excavation, if viable for the Project.

5.32 LOCATION 32

Location 32 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 32 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 32**.

5.33 LOCATION 33

Location 33 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 33 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 33**.

5.34 LOCATION 34

Location 34 does not fulfill the criteria for a Stage 3 archaeological assessment as per Section 2.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 34 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 34**.

5.35 ADDITIONAL STAGE 2 ASSESSMENT

Approximately 4.9% of the study area comprises lands that were not surveyed during the Stage 2 assessment and which retain potential for the identification and documentation of archaeological resources. In accordance with Section 1.3.1 and Section 7.7.4 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), **Stage 2 archaeological assessment is required for any portion of the Project's anticipated construction activities which impacts an area of archaeological potential (Figure 6).**

The objective of the Stage 2 archaeological assessment will be to document any archaeological resources within the study area and to determine whether these archaeological resources require further assessment. The Stage 2 archaeological assessment will include the systematic walking of open ploughed fields as outlined in Section 2.1.1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The MHSTCI standards further require that agricultural land, both active and inactive, be recently ploughed and sufficiently weathered to improve the

visibility of archaeological resources. Ploughing must be deep enough to provide total topsoil exposure, but not deeper than previous ploughing, and must provide at least 80% ground surface visibility.

Moreover, for areas inaccessible for ploughing, the Stage 2 archaeological assessment will include a test pit survey as outlined in Section 2.1.2 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The MHSTCI standards require that each test pit be at least 30 centimetres in diameter, excavated to at least five centimetres into subsoil, and have all soil screened through six millimetre hardware cloth to facilitate the recovery of any cultural material that may be present. Prior to backfilling, each test pit will be examined for stratigraphy, cultural features, and evidence of fill.

If the archaeological field team determines any lands to be low and wet, steeply sloped, or disturbed during the course of the Stage 2 field work, those areas will not require survey, but will be photographically documented in accordance with Section 2.1 of the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

The MHSTCI is asked to review the results presented and to accept this report into the *Ontario Public Register of Archaeological Reports*.

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Heritage, Sport, Tourism and Culture Industries as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c. O.18 (Government of Ontario 1990a). The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Heritage, Sport, Tourism and Culture Industries, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* (Government of Ontario 1990a) for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act* (Government of Ontario 1990a).

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990a). The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990a).

The *Funeral, Burial and Cremation Services Act,* 2002, S.O. 2002, c. 33 (Government of Ontario 2002), requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Registrar of Cemeteries at the Ministry of Government and Consumer Services is also immediately notified.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48(1) of the *Ontario Heritage Act* (Government of Ontario 1990a) and may not be altered, or have artifacts removed, except by a person holding an archaeological license.

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8.0 IMAGES

8.1 PHOTOGRAPHS

Photo 1: Test pit survey of the study area, facing southeast



Photo 2: Disturbed area (extensive grading) within the study area, facing northwest



Photo 3: Test pit survey of the study area, facing south



Photo 4: Disturbed area (artificial berm) within the study area, facing north



Photo 5: Disturbed area (extensive grading) within the study area, facing northeast



Photo 6: View of the study area illustrating rocky conditions and bedrock at surface, facing northwest



Photo 7: Test pit survey of the study area, facing east



Photo 8: View of the study area illustrating rocky conditions and bedrock at surface, facing east



Photo 9: View of the study area, facing west



Photo 10: Pedestrian survey of the study area, facing southwest



Photo 11: Pedestrian survey of the study area, facing south



Photo 12: Test pit survey of the study area, facing northeast



Photo 13: Test pit survey of the study area, facing northeast



Photo 14: Pedestrian survey of the study area, facing south



Photo 15: Test pit survey of the study area, facing northeast



Photo 16: Test pit survey of the study area, facing south



Photo 17: Test pit survey of the study area, facing northeast



Photo 18: Pedestrian survey of the study area, facing northeast



Photo 19: View of the study area, facing south



Photo 20: Low and permanently wet area within the study area, facing northeast



Photo 21: Low and permanently wet area within the study area, facing northwest



Photo 22: Disturbed area (extensive grading and Spencer Creek bridge) within the study area, facing southwest



Photo 23: Test pit survey of the study area, facing southwest



Photo 24: Test pit survey of the study area, facing west



Photo 25 Disturbed area (extensive grading) within the study area, facing southeast



Photo 26 Disturbed area (extensive grading and existing road) within the study area, facing east



Photo 27 Disturbed area (existing paved road) within the study area, facing south



Photo 28 Disturbed area (existing paved road) within the study area, facing south



Photo 29: View of the study area, facing southwest



Photo 30: Disturbed area (existing gravel road) within the study area, facing east



Photo 31: Test pit survey of the study area, facing southwest



Photo 32: Disturbed area (extensive grading and paved area) within the study area, facing west



Photo 33: Disturbed area (existing gravel road) within the study area, facing east



Photo 34: Test pit survey of the study area, facing west



Photo 35: View of the study area, facing southeast



Photo 36: Test pit survey of the study area, facing southwest



Photo 37: Test pit survey of the study area, facing east



Photo 38: View of the study area, facing northeast



Photo 39: Test pit survey of the study area, facing southeast



Photo 40: Test pit survey of the study area, facing west



Photo 41: Test pit survey of the study area, facing north



Photo 42: Disturbed area (extensive grading) within the study area, facing west



Photo 43: Test pit survey of the study area, facing east



Photo 44: Test pit survey of the study area, facing north



Images
March 30, 2021

Photo 45: Test pit survey of the study area, facing south



Photo 46: Pedestrian survey of the study area, facing east



Photo 47: Pedestrian survey of the study area, facing west



Photo 48: Test pit survey of the study area, facing south



Photo 49: View of the study area, facing northeast



Photo 50: Test pit survey of the study area, facing north



Photo 51: View of the study area, facing east



Photo 52: Low and permanently wet area within the study area, facing southeast



Images
March 30, 2021

Photo 53: Test pit survey of the study area, facing northeast



Photo 54: Test pit survey of the study area, facing west



Photo 55: Pedestrian survey of the study area, facing northeast



Photo 56: Pedestrian survey of the study area, facing northeast



Images
March 30, 2021

Photo 57: Test pit survey of the study area, facing northwest



Photo 58: Low and permanently wet area within the study area, facing northwest



Photo 59: Test pit survey of the study area, facing southeast



Photo 60: Disturbed area (existing gravel laneway) within the study area, facing north



Photo 61: Test pit survey of the study area, facing northwest



Photo 62: Test pit survey of the study area, facing north



Photo 63: Test pit survey of the study area, facing east



Photo 64: Low and permanently wet area within the study area, facing south



Photo 65: Disturbed area (existing gravel laneway) within the study area, facing southeast



Photo 66: Low and permanently wet area within the study area, facing west



Photo 67: Test pit survey of the study area, facing east



Photo 68 Disturbed area (existing gravel laneway and buried utilities) within the study area, facing north



Photo 69: View of the study area, facing northeast



Photo 70: View of the study area, facing west



Photo 71: Low and permanently wet area within the study area, facing west



Photo 72: View of the study area, facing east



Images
March 30, 2021

Photo 73: Test pit survey of the study area, facing north



Photo 74: Test pit survey of the study area, facing northwest



Photo 75: Test pit survey of the study area, facing southeast



Photo 76: Test pit survey of the study area, facing north



Photo 77: Test pit survey of the study area, facing west



Photo 78: Test pit survey of the study area, facing west



Photo 79: Test pit survey of the study area, facing east



Photo 80: Disturbed area (existing gravel laneway) within the study area, facing northwest



Photo 81: Disturbed area (existing gravel laneway) within the study area, facing north



Photo 82: Disturbed area (existing paved road) within the study area, facing southeast



Photo 83: Test pit survey of the study area, facing east



Photo 84: Test pit survey of the study area, facing southwest



Photo 85: Disturbed area (existing gravel laneway) within the study area, facing north



Photo 86: Disturbed area (existing gravel laneway and bridge) within the study area, facing north



Photo 87: Disturbed area (existing paved laneway) within the study area, facing southwest



Photo 88: Test pit survey of the study area, facing southwest



Photo 89: Test pit survey of the study area, facing east



Photo 90: Disturbed area (existing paved laneway) within the study area, facing northwest



Photo 91: Test pit survey of the study area, facing north



Photo 92: View of the study area, facing east



Images
March 30, 2021

Photo 93: Test pit survey of the study area, facing northeast



Photo 94: Test pit survey of the study area, facing southwest



Photo 95: View of the study area, facing southeast



Photo 96: View of the study area, facing northeast



Photo 97: Low and permanently wet area within study area, facing north



Photo 98: Low and permanently wet area within study area, facing southwest



Photo 99: Test pit survey of the study area, facing southwest



Photo 100: Disturbed area (existing gravel laneway) within the study area, facing southeast



8.2 PLATES

Plate 1: Sample of artifacts from Location 1

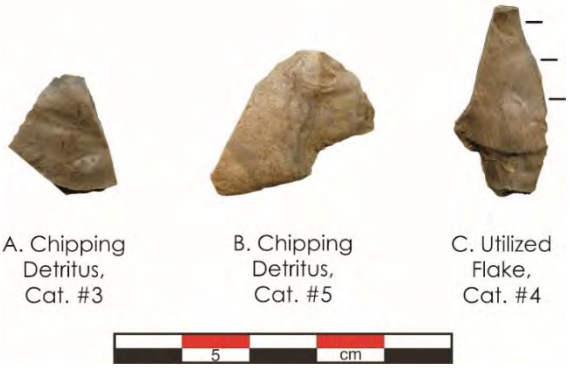


Plate 2: Artifact from Location 2



Plate 3: Artifact from Location 3



Plate 4: Artifact from Location 4

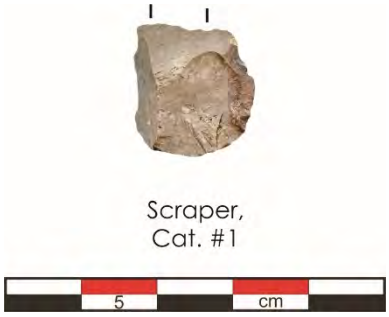


Plate 5: Sample of artifacts from Location 5

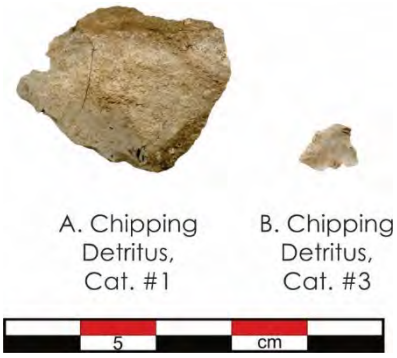


Plate 6: Artifact from Location 6

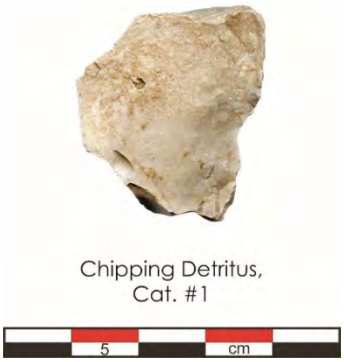


Plate 7: Artifact from Location 7

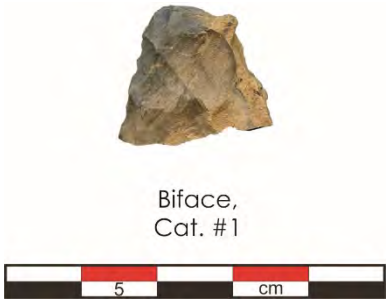


Plate 8: Artifact from Location 8



Plate 9: Artifacts from Location 9

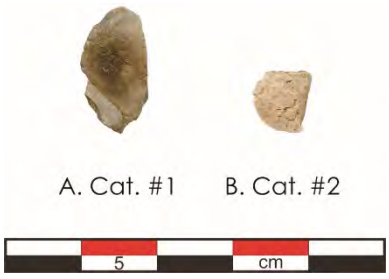


Plate 10: Artifact from Location 10



Plate 11: Artifacts from Location 11

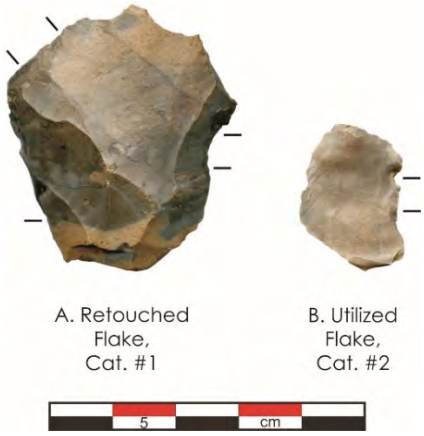


Plate 12: Sample of artifacts from Location 12 (AiHa-60)

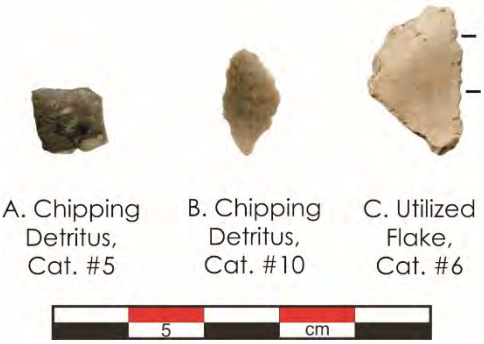


Plate 13: Sample of artifacts from Location 13 (AiHa-61)

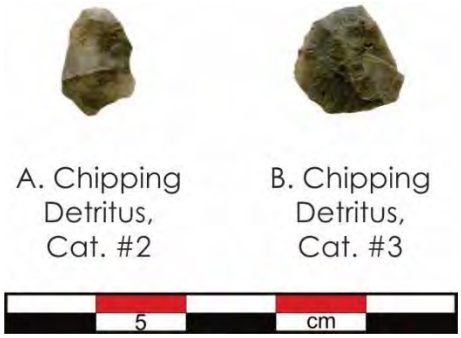


Plate 14: Artifact from Location 14

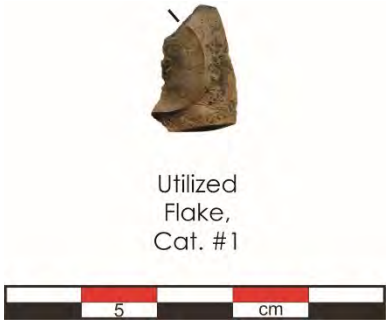


Plate 15: Artifacts from Location 15

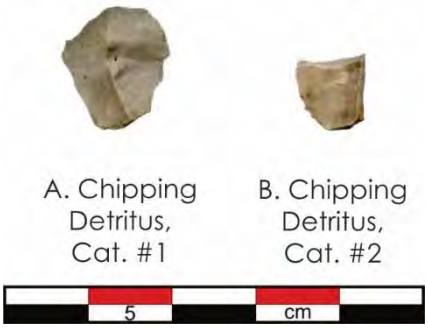


Plate 16: Artifacts from Location 16

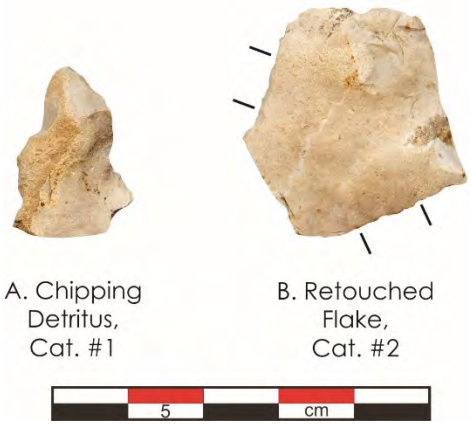


Plate 17: Artifact from Location 17



Plate 18: Artifacts from Location 18

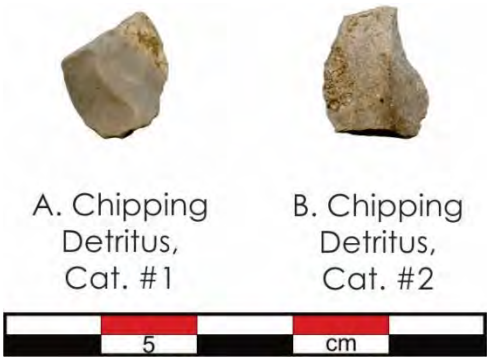


Plate 19: Sample of artifacts from Location 19

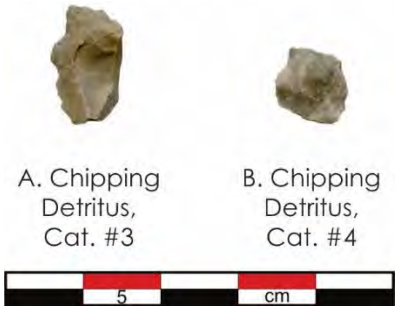


Plate 20: Artifacts from Location 20 (AiHa-62)

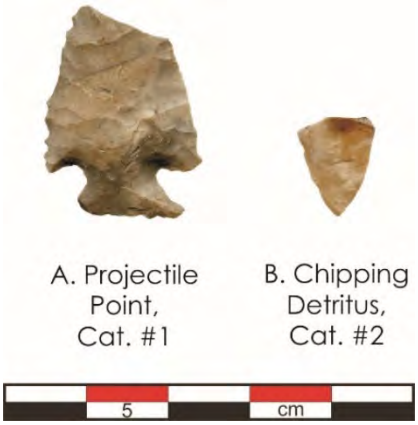


Plate 21: Artifacts from Location 21 (AiHa-63)

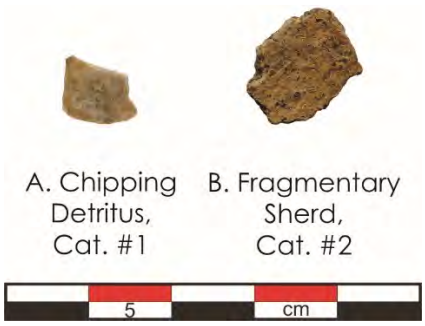


Plate 22: Artifact from Location 22



Plate 23: Artifact from Location 23



Plate 24: Artifact from Location 24



Plate 25: Artifact from Location 25

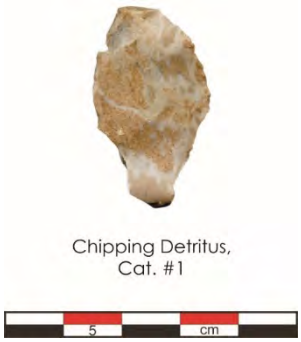


Plate 26: Sample of artifacts from Location 26 (AiHa-64)

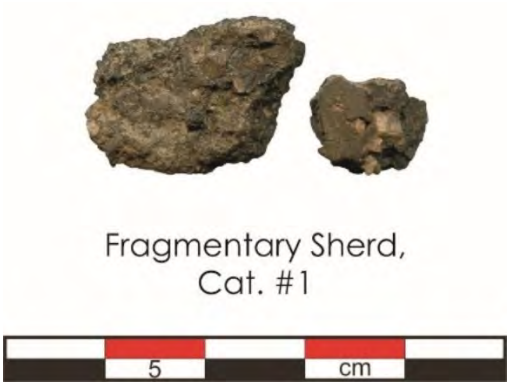


Plate 27: Sample of artifacts from Location 27

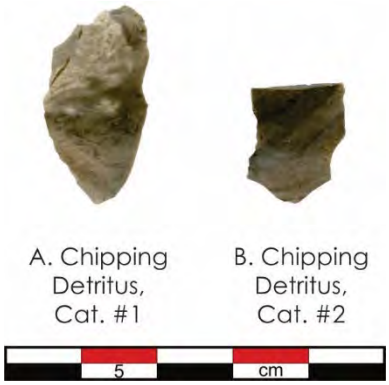


Plate 28: Sample of artifacts from Location 28 (AiHa-65)

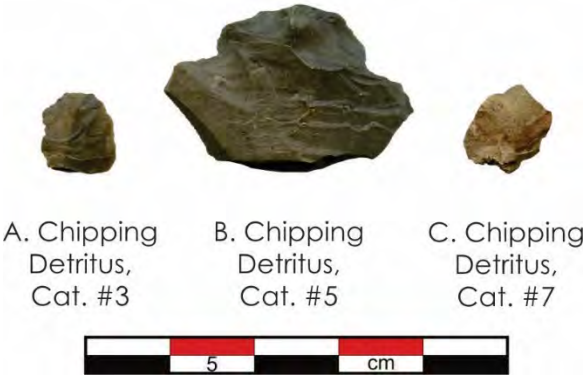


Plate 29: Artifact from Location 29



Plate 30: Artifact from Location 30



Plate 31: Sample of artifacts from Location 31 (AiHa-66)

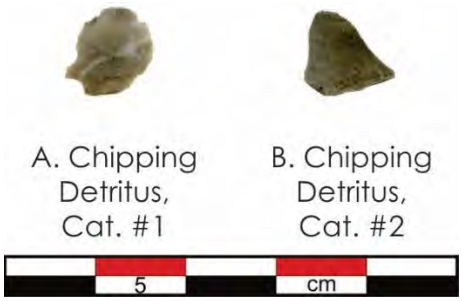


Plate 32: Artifact from Location 32



Plate 33: Sample of artifacts from Location 33

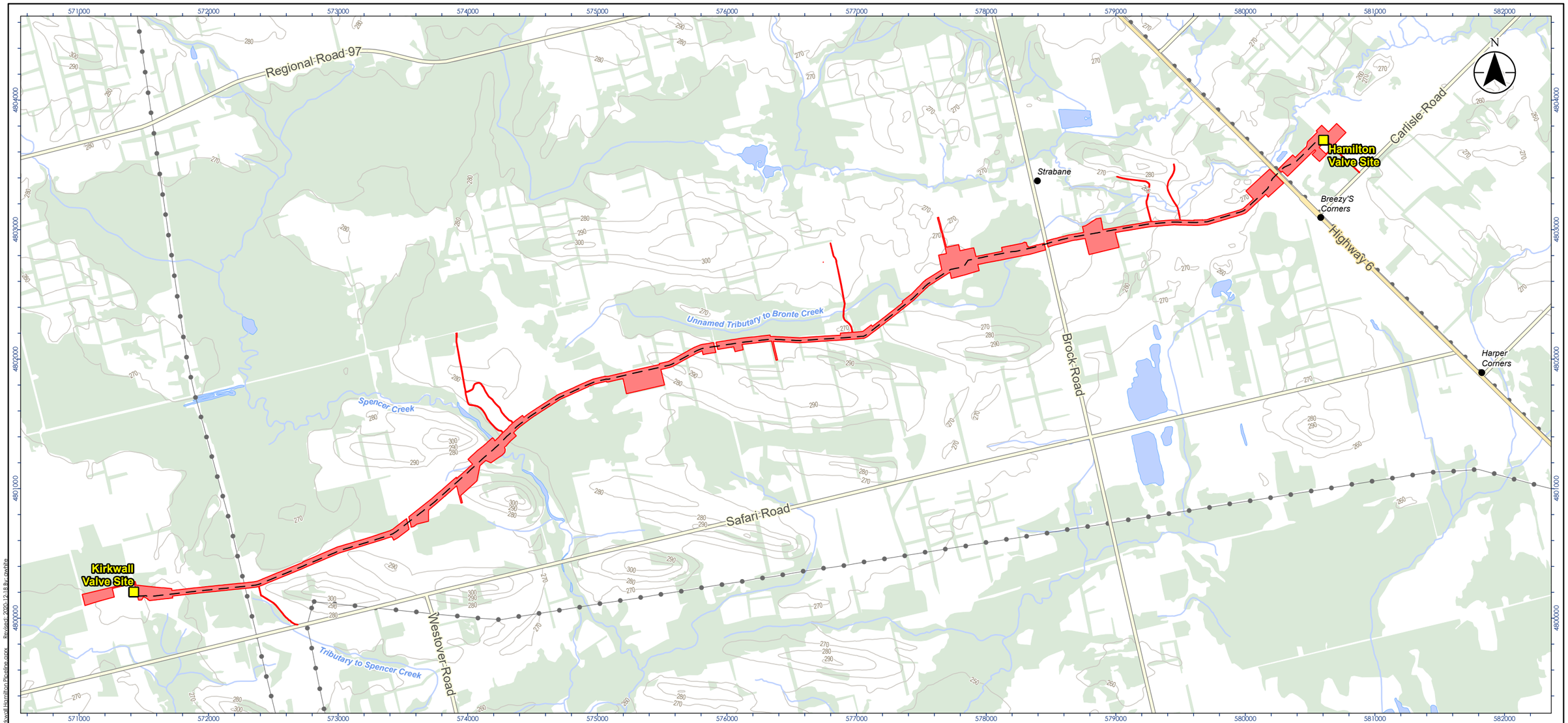


Plate 34: Artifact from Location 34



9.0 MAPS

General maps of the Project and archaeological assessment will follow on succeeding pages. Maps illustrating exact site locations do not form part of this public report; they may be found in the Supplementary Documentation.





Legend

- Archaeology Study Area
- Existing Enbridge Station
- Proposed Route
- Municipal Boundary, Lower
- Highway
- Major Road
- Minor Road
- Minor Road
- Hydro Line
- Watercourse
- Contour (10 m Interval)
- Waterbody
- Wooded Area

0 0.5 1 km

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Notes

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Prepared by AW on 2020-12-18

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KIRKWALL-HAMILTON PIPELINE PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
1

Title
Location of the Project

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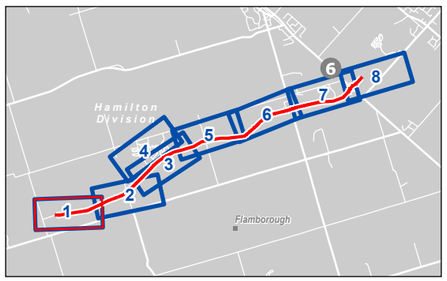

Legend

- Archaeology Study Area
- Proposed Route
- Existing Enbridge Station
- Existing Pipeline
- Hydro Line
- Watercourse
- Property Boundary

0 100 200 m

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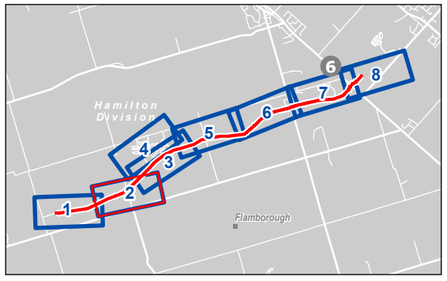

Legend

- Archaeology Study Area
- Proposed Route
- Existing Pipeline
- Hydro Line
- Waterbody
- Watercourse
- Property Boundary

0 100 200 m

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STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
2.2

Title
Location of the Study Area

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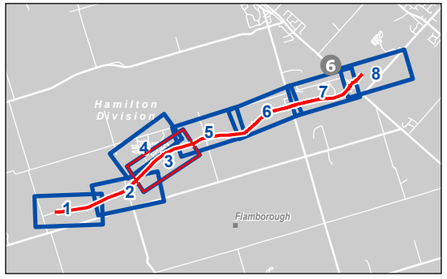

Legend

- Archaeology Study Area
- Proposed Route
- Existing Pipeline
- Waterbody
- Watercourse
- Property Boundary

0 100 200 m

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STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
2.3

Title
Location of the Study Area

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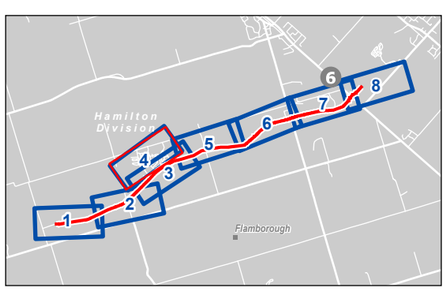

Legend

- Archaeology Study Area
- Existing Pipeline
- Waterbody
- Watercourse
- Property Boundary

0 100 200 m

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STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
2.4

Title
Location of the Study Area

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575000

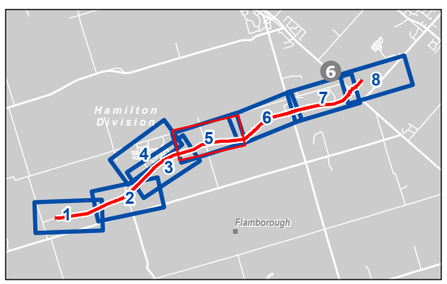
575000

Concession 8 West

Unnamed Tributary to Bronte Creek

Middletown Road

N



Legend

- Archaeology Study Area
- Proposed Route
- Existing Pipeline
- Watercourse
- Property Boundary

0 100 200 m

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STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
2.5

Title
Location of the Study Area

Notes

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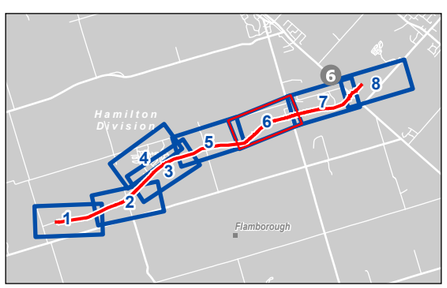

Legend

- Archaeology Study Area
- Proposed Route
- Existing Pipeline
- Watercourse
- Property Boundary

0 100 200 m

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STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
2.6

Title
Location of the Study Area

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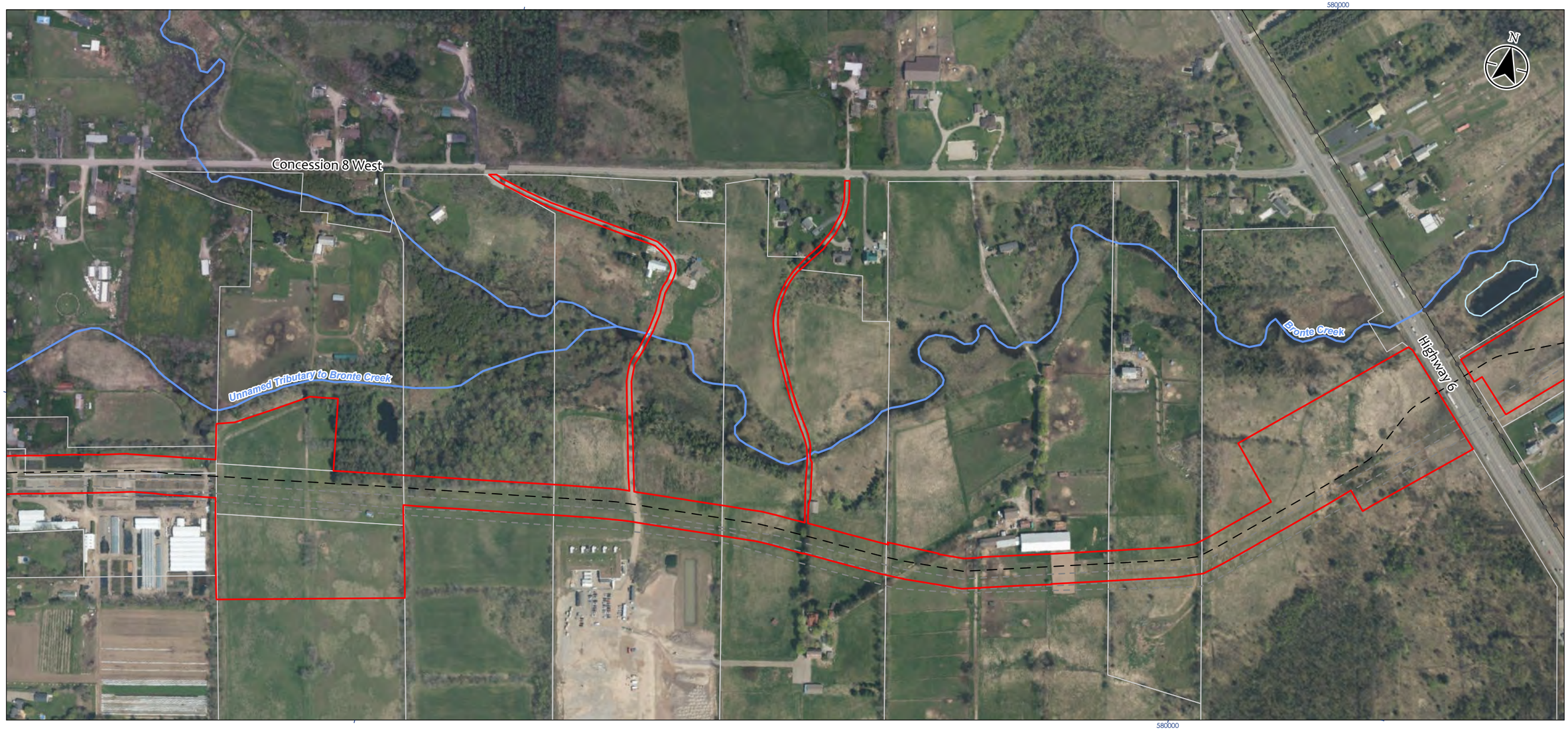

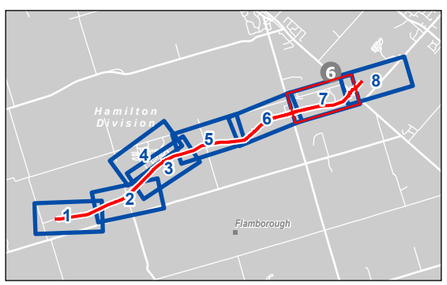

Legend

- Archaeology Study Area
- Proposed Route
- Existing Pipeline
- Hydro Line
- Waterbody
- Watercourse
- Property Boundary

0 100 200 m

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City of Hamilton

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Prepared by AW on 2020-12-18

Client/Project
ENBRIDGE GAS INC.
KIRKWALL-HAMILTON PIPELINE PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
2.7

Title
Location of the Study Area

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580000

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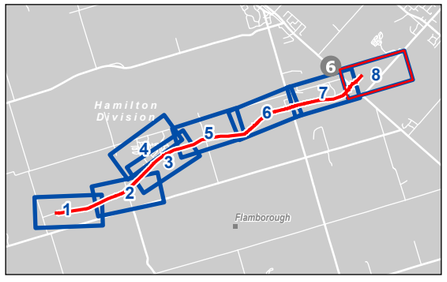
Bronte Creek

Hamilton Valve Site

Highway 6

Carlisle Road

N



Legend

- Archaeology Study Area
- Proposed Route
- Existing Enbridge Station
- Existing Pipeline
- Hydro Line
- Waterbody
- Watercourse
- Property Boundary

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Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
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Project Location
City of Hamilton

160961299
Prepared by AW on 2020-12-18

Client/Project
ENBRIDGE GAS INC.
KIRKWALL-HAMILTON PIPELINE PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
2.8

Title
Location of the Study Area

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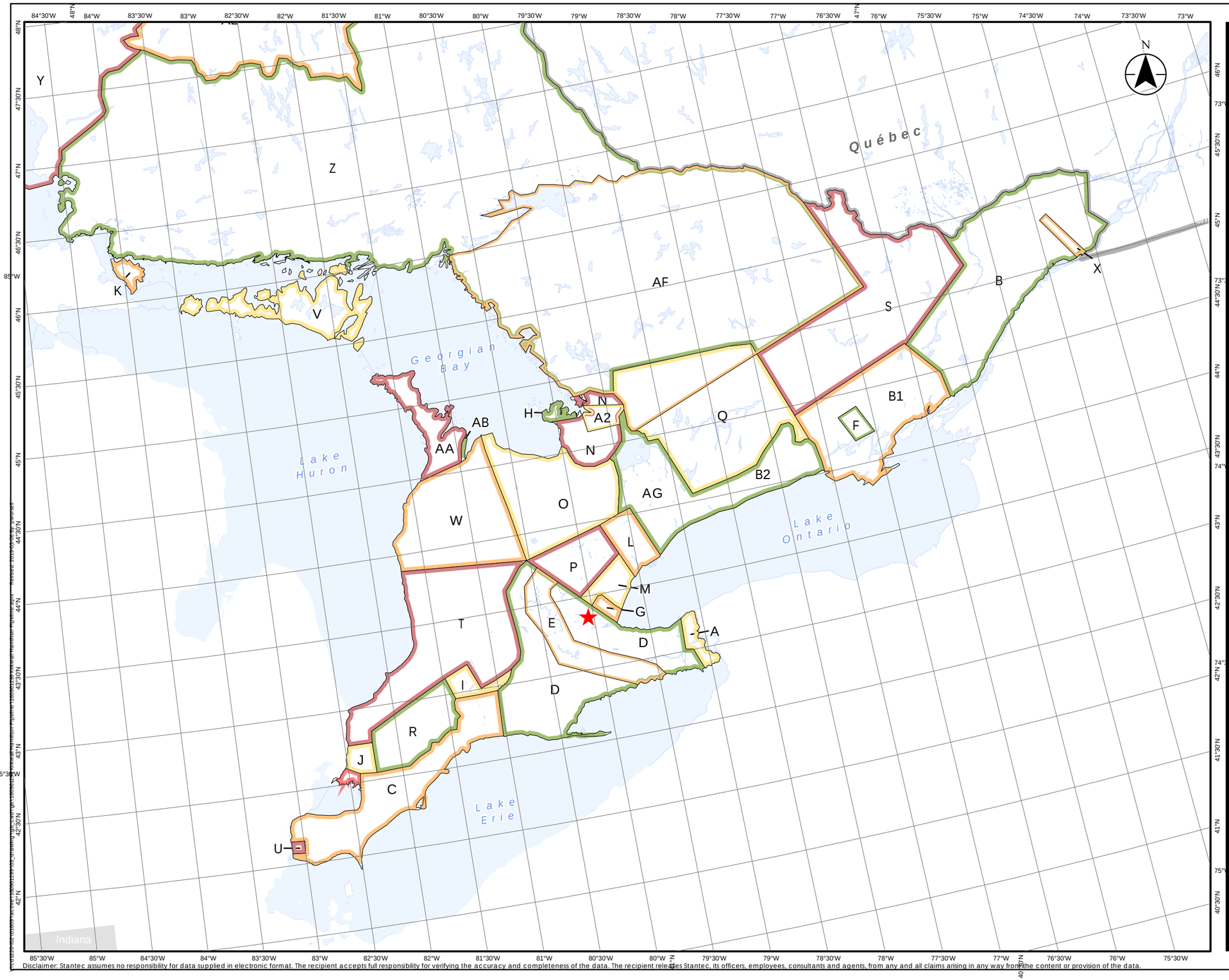

Stantec

Legend

★ Project Location

A Treaty No. 381, May 9th, 1781 (Mississauga and Chippewa)
AA Treaty No. 72, October 30th, 1854 (Chippewa)
AB Treaty No. 82, February 9th, 1857 (Chippewa)
AE Treaty No. 9, James Bay 1905, 1906 (Ojibway and Cree)
AG Williams Treaty, October 31st, 1923 (Chippewa)
A2 John Collins' Purchase, 1785 (Chippewa)
B Crawford's Purchase, October 9th, 1783 (Algonquin and Iroquois)
B1 Crawford's Purchase, October 9th, 1783 (Mississauga)
B2 Crawford's Purchase, 1783, 1787, 1788 (Mississauga)
C Treaty No. 2, May 19th, 1790 (Odawa, Chippewa, Pottawatomi, and Huron)
D Treaty No. 3, December 2nd, 1792 (Mississauga)
E Haldimand Tract: from the Crown to the Mohawk, 1793
F Tyendinaga: from the Crown to the Mohawk, 1793
G Treaty No. 3 3/4: from the Crown to Joseph Brant, October 24th, 1795
H Treaty No. 5, May 22nd, 1798 (Chippewa)
I Treaty No. 6, September 7th, 1796 (Chippewa)
J Treaty No. 7, September 7th, 1796 (Chippewa)
K Treaty No. 11, June 30th, 1798 (Chippewa)
L Treaty No. 13, August 1st, 1805 (Mississauga)
M Treaty No. 13A, August 2nd, 1805 (Mississauga)
N Treaty No. 16, November 18th, 1815 (Chippewa)
O Treaty No. 18, October 17th, 1818 (Chippewa)
P Treaty No. 19, October 28th 1818 (Chippewa)
Q Treaty No. 20, November 5th, 1818 (Chippewa)
R Treaty No. 21, March 9th, 1819 (Chippewa)
S Treaty No. 27, May 31st, 1819 (Mississauga)
T Treaty No. 27½, April 25th, 1825 (Ojibwa and Chippewa)
U Treaty No. 35, August 13th, 1833 (Wyandot or Huron)
W Treaty No. 45½, August 9th, 1836 (Saugeen)
X Treaty No. 57, June 1st, 1847 (Iroquois of St. Regis)
Y Treaty No. 60, Robinson, Superior, September 7th, 1850 (Ojibwa)
Z Treaty No. 61, Robinson, Huron, September 9th, 1850 (Ojibwa)

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Notes
1. Coordinate System: NAD 1983 Statistics Canada Lambert
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2019.
3. Treaty boundaries adapted from Morris 1943 (1964 reprint). For cartographic representation only.

Project Location
City of Hamilton

160961299
Prepared by PW on 2019-03-06

Client/Project
ENBRIDGE GAS INC.
KIRKWALL-HAMILTON PIPELINE PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
3

Title
Treaties and Purchases (Adapted from Morris 1943)

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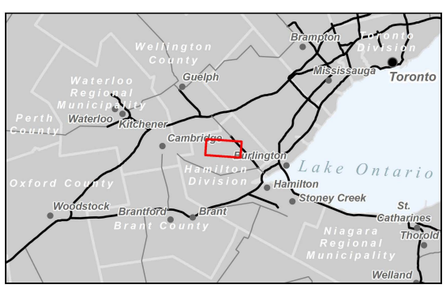

Legend

Archaeology Study Area (approximate)

Notes

1. Map is not to scale.
2. Historic map source:

Stantec

Project Location
City of Hamilton

160961299
Prepared by AW on 2020-12-18

Client/Project
ENBRIDGE GAS INC.
KIRKWALL-HAMILTON PIPELINE PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT

Figure No.
4

Title
Portion of the 1859 County of Wentworth Map

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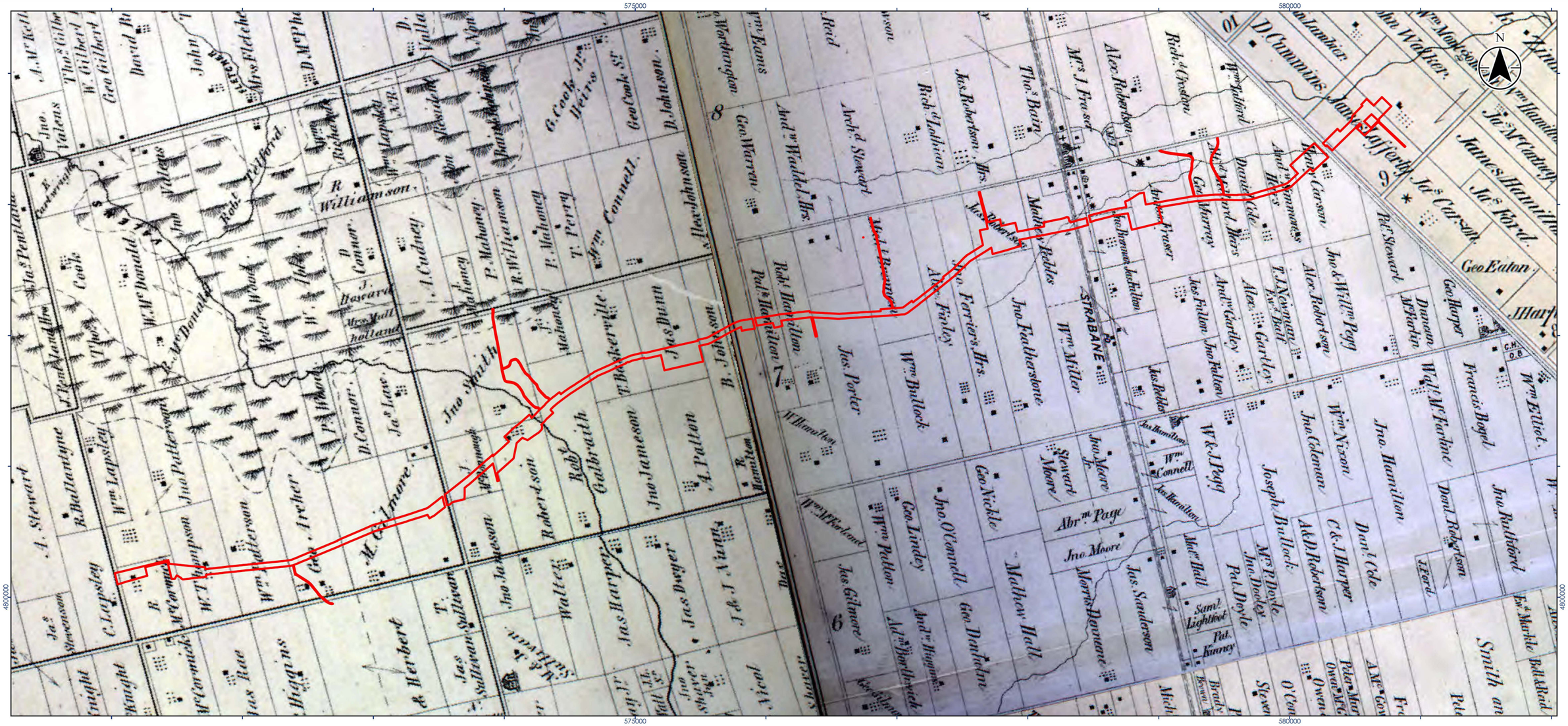

Legend

Archaeology Study Area (approximate)

Notes

1. Map is not to scale.
2. Historic map source:

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Client/Project
ENBRIDGE GAS INC.
KIRKWALL-HAMILTON PIPELINE PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
5

Title
Portion of the 1875 County of Wentworth Map

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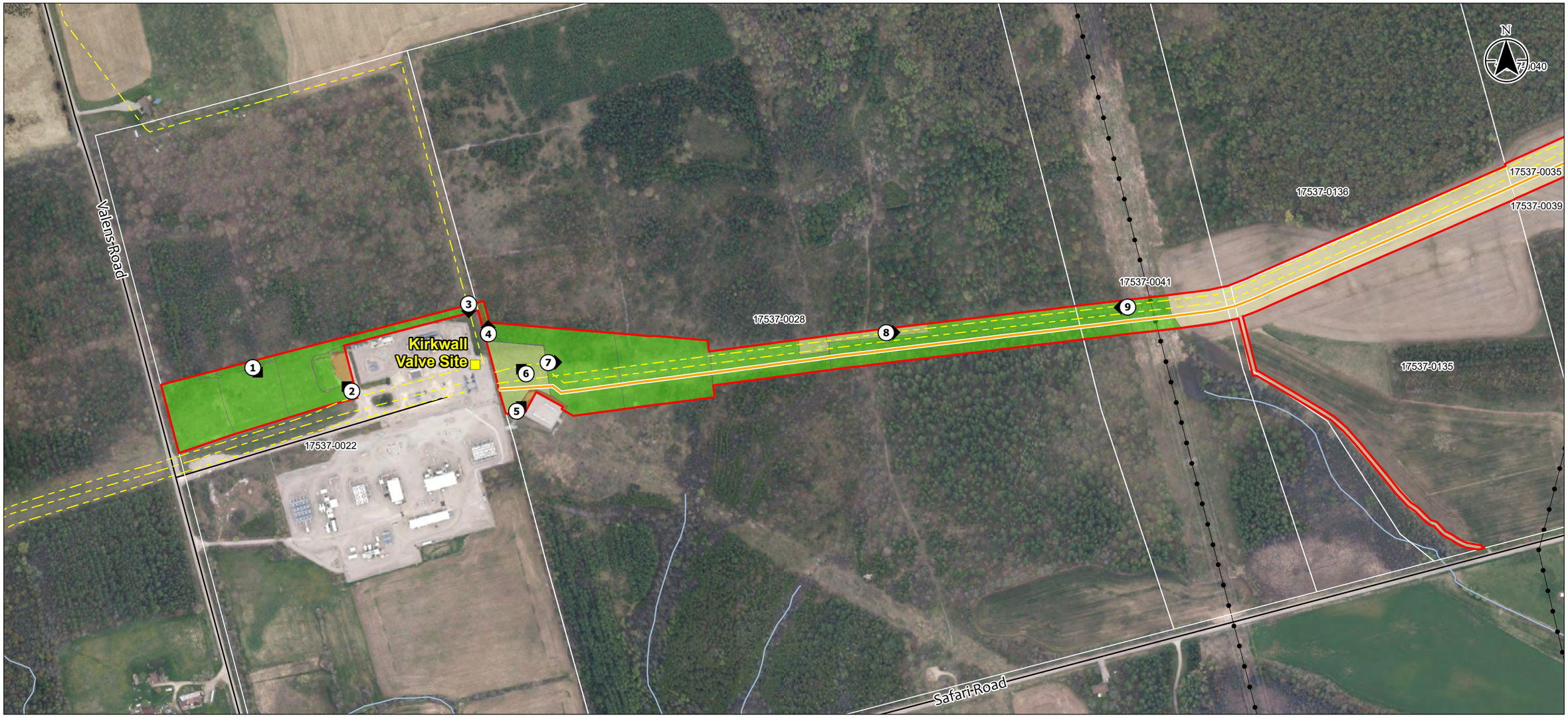

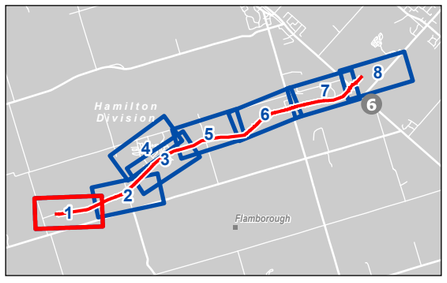

Legend

- Archaeology Study Area
- Archaeology Photo Log
- Previously Disturbed, Low to No Archaeological Potential - No Further Archaeological Work Required
- Pedestrian Survey, 5 m Intervals
- Test Pit Survey, 5 m Intervals
- Test Pit Survey, 10 m Intervals
- Existing Station
- Preferred Route
- Existing Enbridge Pipeline
- Road
- Hydro Line
- Watercourse

Notes

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Project Location
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Prepared by AW on 2020-12-22

Client/Project
ENBRIDGE GAS INC.
KIRKWALL TO HAMILTON PIPELINE PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
6.1

Title
Stage 2 Methods and Results

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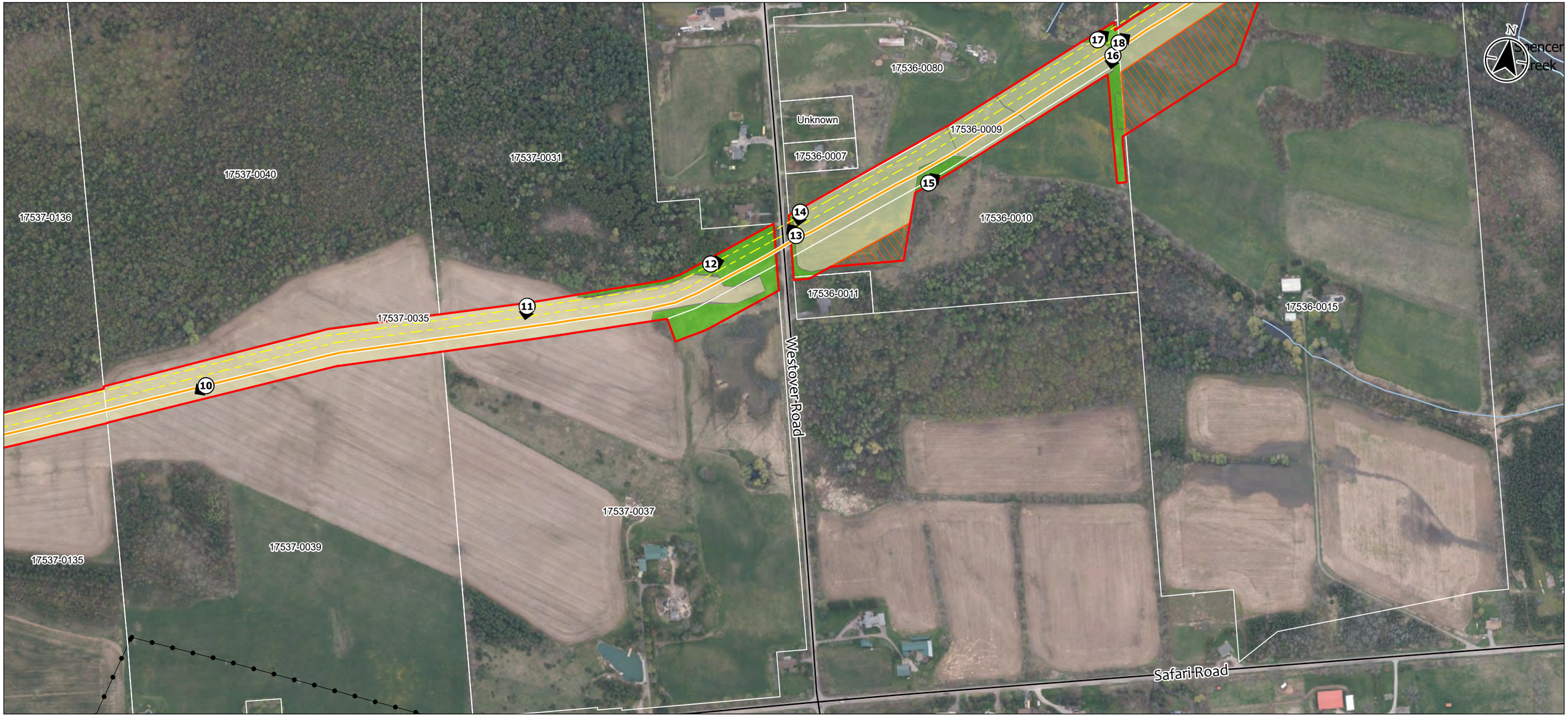

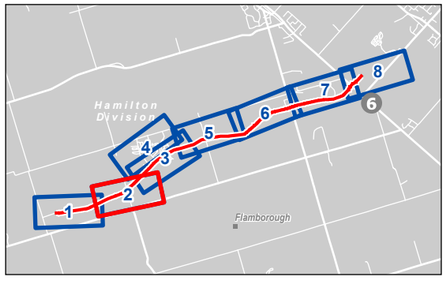

Legend

- Archaeology Study Area
- Archaeology Photo Log
- Pedestrian Survey, 5 m Intervals
- Test Pit Survey, 5 m Intervals
- Retains Archaeological Potential - Stage 2 Required
- Preferred Route
- Existing Enbridge Pipeline
- Road
- Hydro Line
- Watercourse
- Waterbody

Notes

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Project Location
City of Hamilton

160961299
Prepared by AW on 2020-12-22

Client/Project
ENBRIDGE GAS INC.
KIRKWALL TO HAMILTON PIPELINE PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
6.2

Title
Stage 2 Methods and Results

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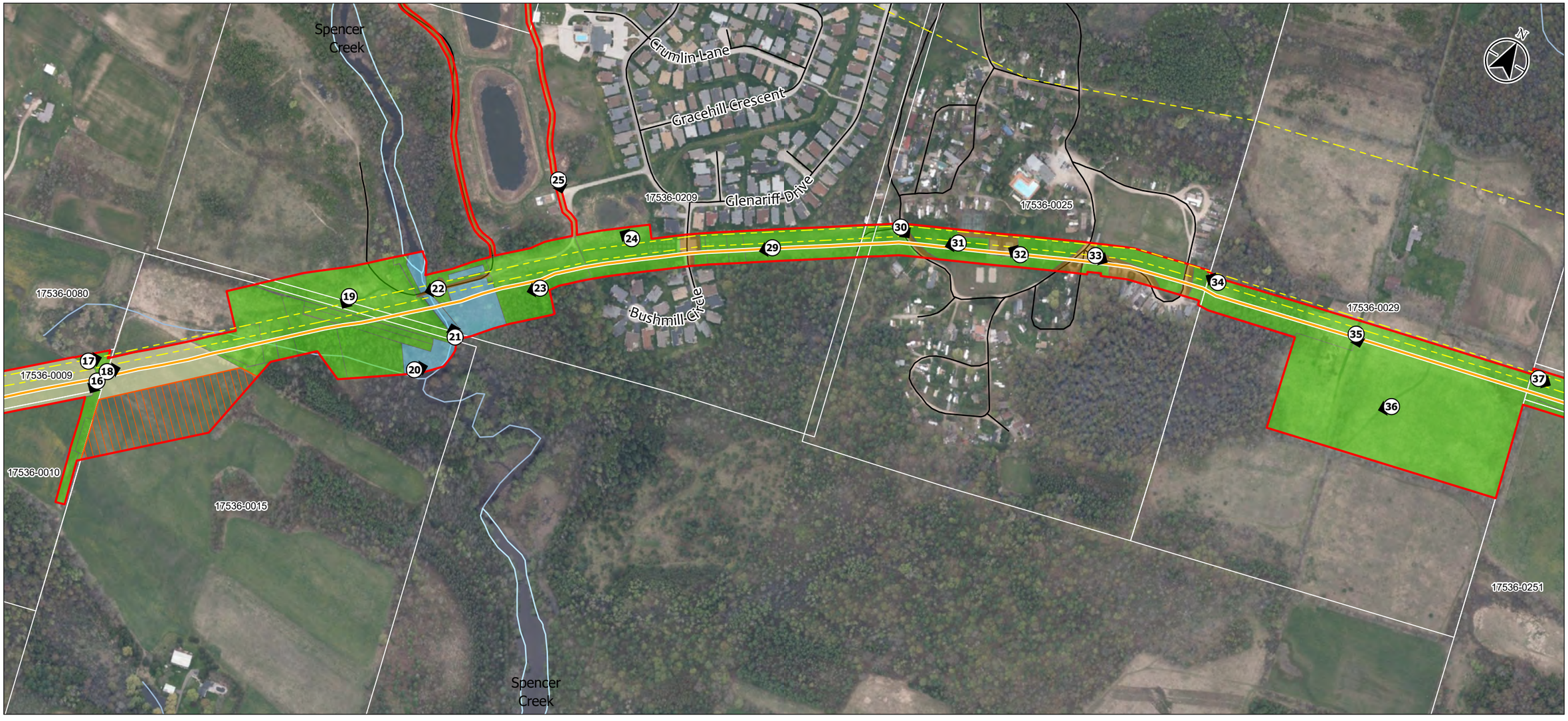

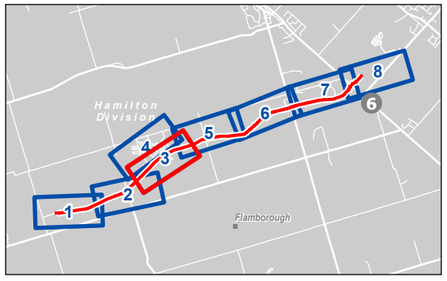

Legend

- Archaeology Study Area
- Archaeology Photo Log
- Low and Permanently Wet Area, Low to No Archaeological Potential - No Further Archaeological Work Required
- Previously Disturbed, Low to No Archaeological Potential - No Further Archaeological Work Required
- Pedestrian Survey, 5 m Intervals
- Test Pit Survey, 5 m Intervals
- Retains Archaeological Potential - Stage 2 Required
- Preferred Route
- Existing Enbridge Pipeline
- Road
- Watercourse
- Waterbody

Notes

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Stantec

Project Location
City of Hamilton

160961299
Prepared by AW on 2020-12-22

Client/Project
ENBRIDGE GAS INC.
KIRKWALL TO HAMILTON PIPELINE PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
6.3

Title
Stage 2 Methods and Results

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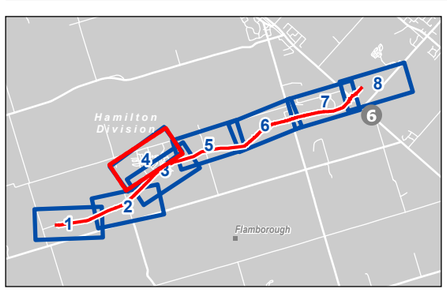

Legend

- Archaeology Study Area
- Archaeology Photo Log
- Previously Disturbed, Low to No Archaeological Potential - No Further Archaeological Work Required
- Existing Enbridge Pipeline
- Road
- Watercourse
- Waterbody

Notes

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Stantec

Project Location
City of Hamilton

160961299
Prepared by AW on 2020-12-22

Client/Project
ENBRIDGE GAS INC.
KIRKWALL TO HAMILTON PIPELINE PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
6.4

Title
Stage 2 Methods and Results

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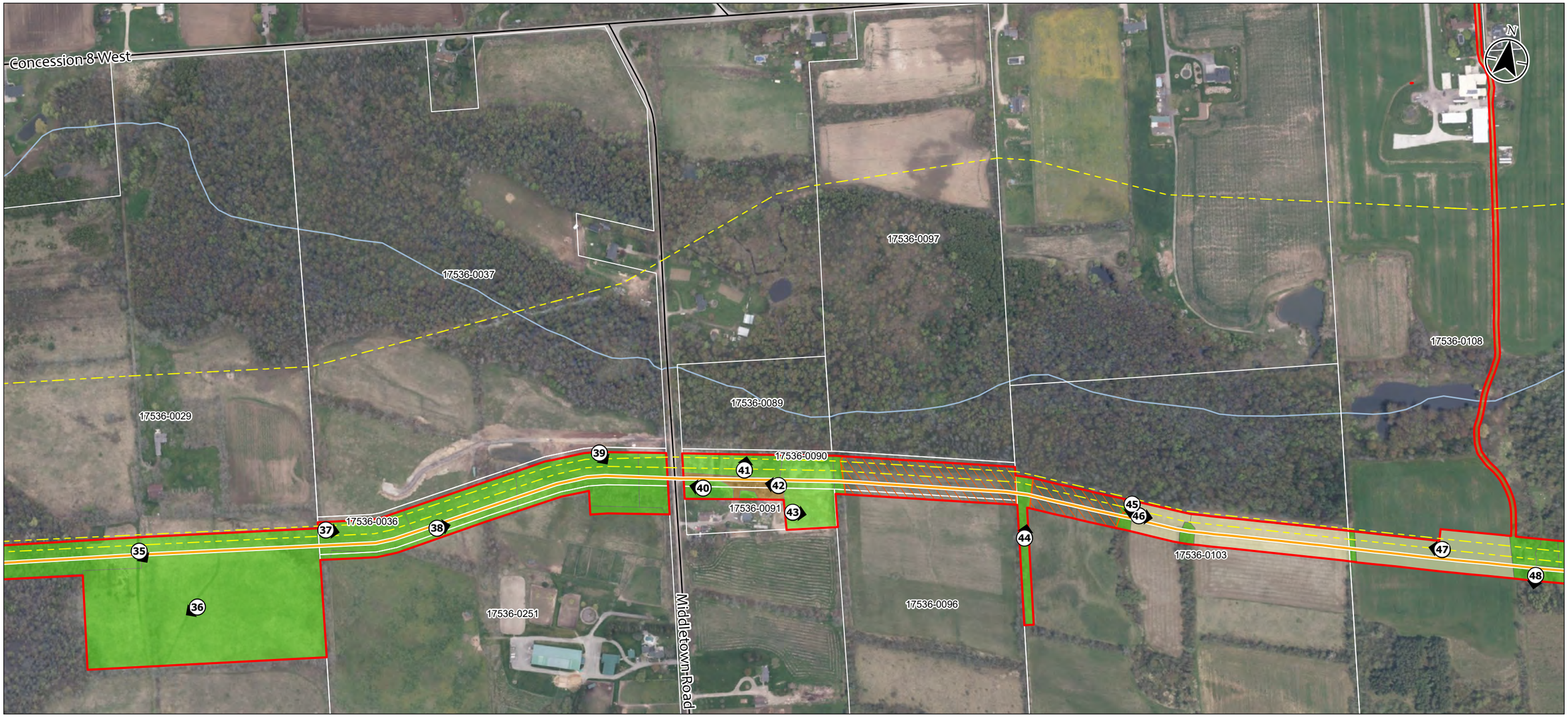

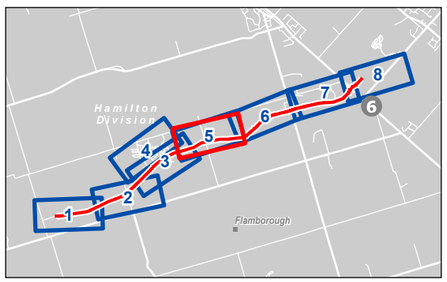

Legend

- Archaeology Study Area
- Archaeology Photo Log
- Previously Disturbed, Low to No Archaeological Potential - No Further Archaeological Work Required
- Pedestrian Survey, 5 m Intervals
- Test Pit Survey, 5 m Intervals
- Retains Archaeological Potential - Stage 2 Required
- Preferred Route
- Existing Enbridge Pipeline
- Road
- Watercourse

Notes

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Project Location
City of Hamilton

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Client/Project
ENBRIDGE GAS INC.
KIRKWALL TO HAMILTON PIPELINE PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
6.5

Title
Stage 2 Methods and Results

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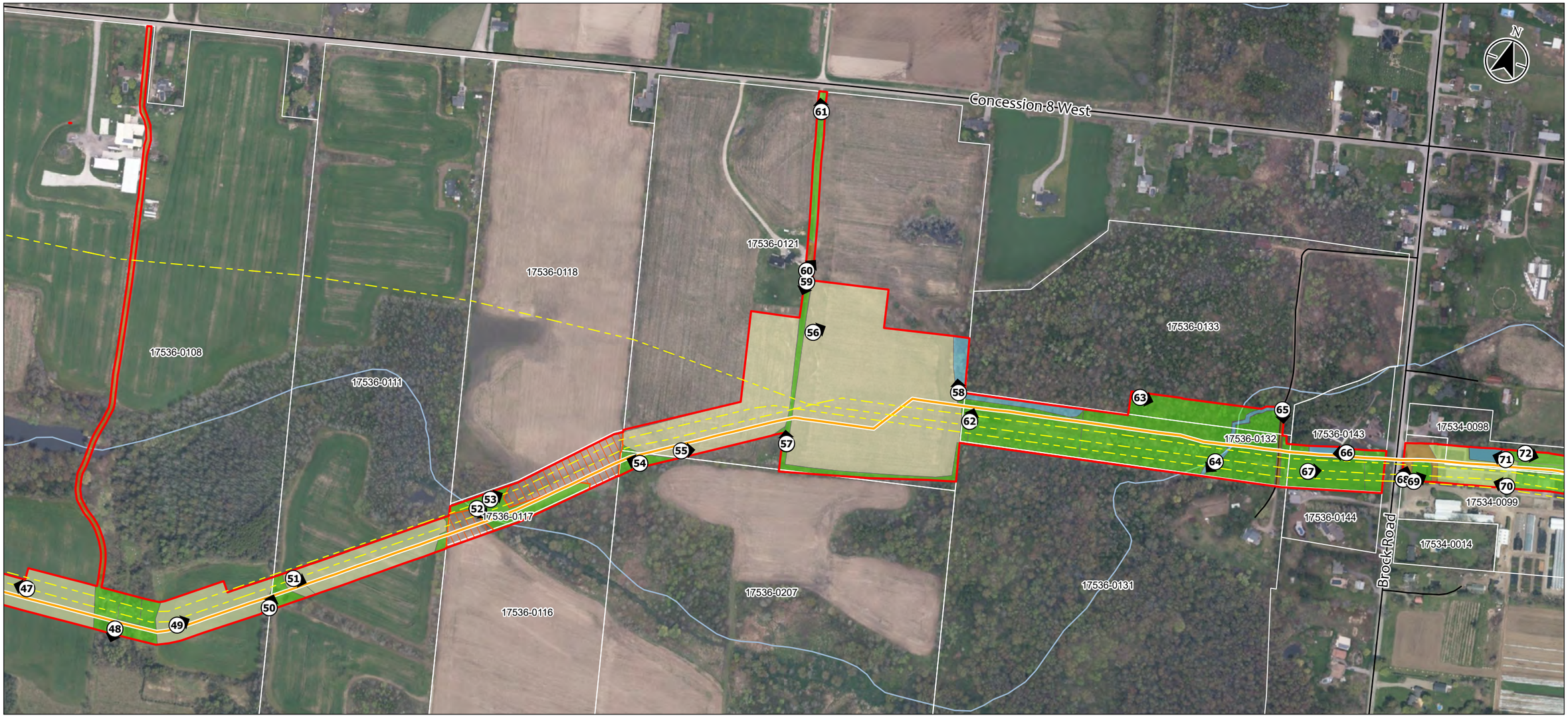

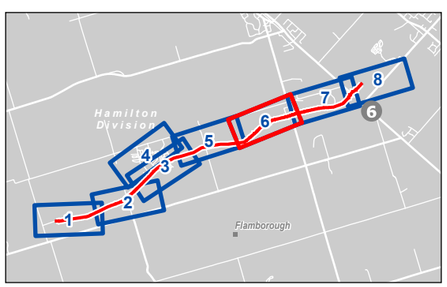

Legend

- Archaeology Study Area
- Archaeology Photo Log
- Low and Permanently Wet Area, Low to No Archaeological Potential - No Further Archaeological Work Required
- Previously Disturbed, Low to No Archaeological Potential - No Further Archaeological Work Required
- Pedestrian Survey, 5 m Intervals
- Test Pit Survey, 5 m Intervals
- Test Pit Survey, 10 m Intervals
- Retains Archaeological Potential - Stage 2 Required
- Preferred Route
- Existing Enbridge Pipeline
- Road
- Watercourse

Notes

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Stantec

Project Location
City of Hamilton

160961299
Prepared by AW on 2020-12-22

Client/Project
ENBRIDGE GAS INC.
KIRKWALL TO HAMILTON PIPELINE PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
6.6

Title
Stage 2 Methods and Results

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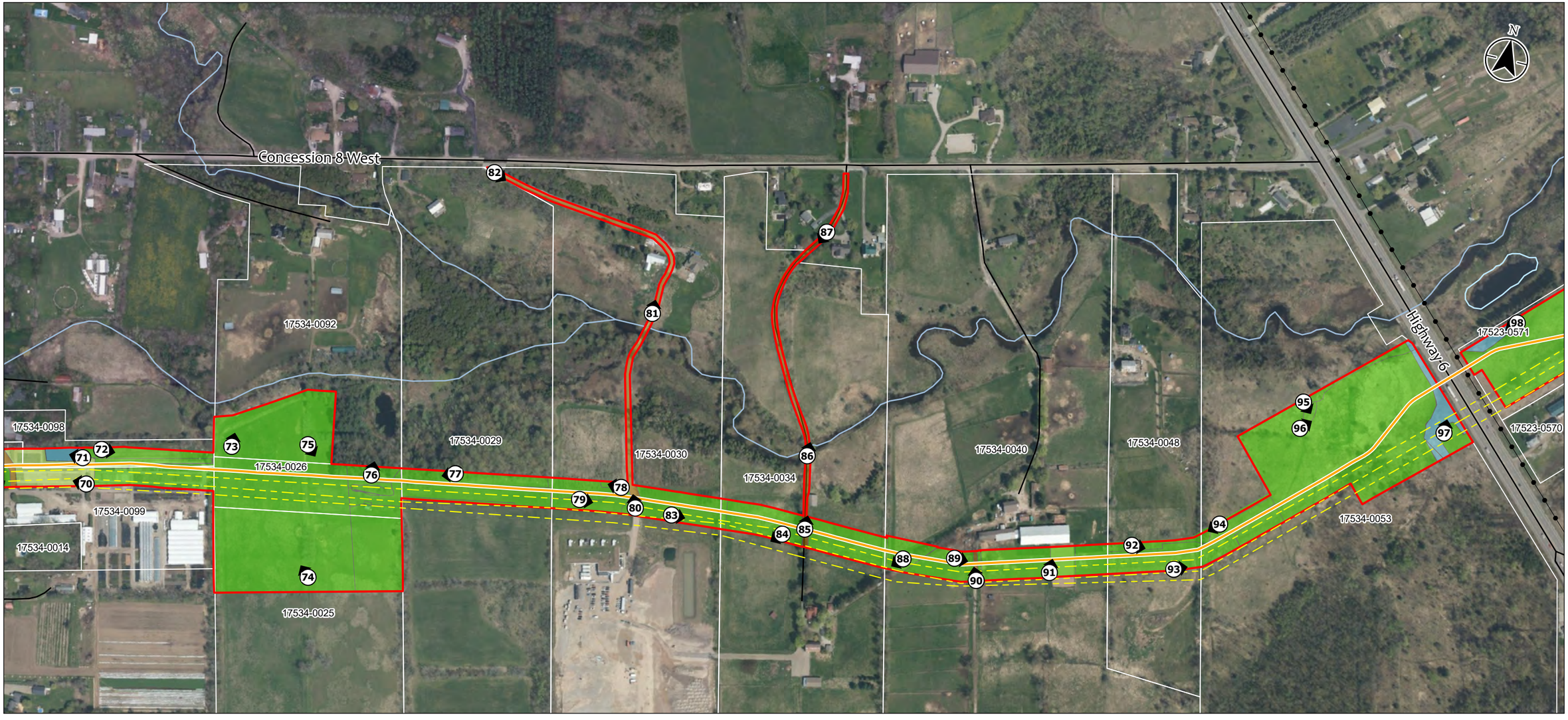

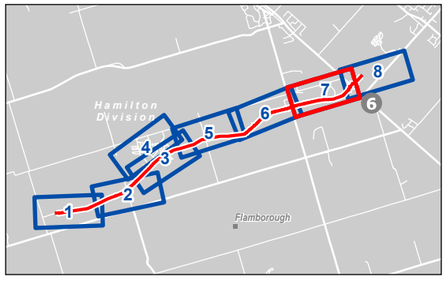

Legend

- Archaeology Study Area
- Archaeology Photo Log
- Low and Permanently Wet Area, Low to No Archaeological Potential - No Further Archaeological Work Required
- Previously Disturbed, Low to No Archaeological Potential - No Further Archaeological Work Required
- Test Pit Survey, 5 m Intervals
- Test Pit Survey, 10 m Intervals
- Preferred Route
- Existing Enbridge Pipeline
- Road
- Hydro Line
- Watercourse
- Waterbody

Notes

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Stantec

Project Location
City of Hamilton

160961299
Prepared by AW on 2020-12-22

Client/Project
ENBRIDGE GAS INC.
KIRKWALL TO HAMILTON PIPELINE PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
6.7

Title
Stage 2 Methods and Results

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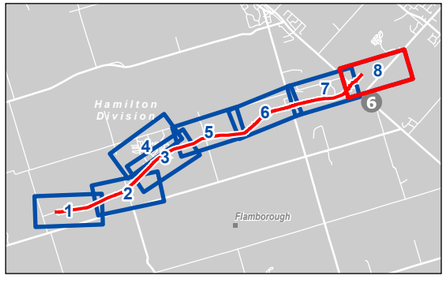

Legend

- Archaeology Study Area
- Archaeology Photo Log
- Low and Permanently Wet Area, Low to No Archaeological Potential - No Further Archaeological Work Required
- Previously Disturbed, Low to No Archaeological Potential - No Further Archaeological Work Required
- Test Pit Survey, 5 m Intervals
- Previously Assessed (DRP 2015; Stantec 2015) - No Further Archaeological Work Required
- Existing Station
- Preferred Route
- Existing Enbridge Pipeline
- Road
- Hydro Line
- Watercourse
- Waterbody

Notes

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Stantec

Project Location
City of Hamilton

160961299
Prepared by AW on 2020-12-22

Client/Project
ENBRIDGE GAS INC.
KIRKWALL TO HAMILTON PIPELINE PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT

Figure No.
6.8

Title
Stage 2 Methods and Results

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Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report and are based solely on the scope of work described in the report, the limited data available and the results of the work. The conclusions are based on the conditions encountered by Stantec at the time the work was performed. Due to the nature of archaeological assessment, which consists of systematic sampling, Stantec does not warrant against undiscovered environmental liabilities nor that the sampling results are indicative of the condition of the entire property.

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Quality Review _____ (signature)

Jeffrey Muir – Senior Archaeologist

Independent Review _____ (signature)

Colin Varley – Senior Associate, Senior Archaeologist