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November 22, 2019

Emma Sharkey
Senior Advisor
Ministry of Energy, Northern Development and Mines
emma.sharkey@ontario.ca

Re: Nov. 12, 2019 OKT Huron-Wendat Nation letter re: Indigenous Consultation – Imperial’s Waterdown to Finch Pipeline Project – EB-2019-0007

Dear Ms. Sharkey,

This communication is intended to provide additional clarity and context in response to various matters outlined in the Nov. 12, 2019 letter from Olthuis Kler Townshen - LLP on behalf of the Huron-Wendat Nation (“**HWN**”) to the Ministry of Energy, Northern Development and Mines (“**MENDM**”).

Imperial conducts business in a manner that respects the land, environment, rights and cultures of Indigenous communities. We seek to understand Indigenous perspectives on issues of mutual interest and to deal constructively with differing views. Imperial is committed to addressing concerns through ongoing engagement directly with HWN and expects this engagement to continue through to Project completion.

Imperial understands that HWN has concerns and offers the following responses.

HWN statements on SPPL Emergency Response Plan, Waterdown to Finch Project Spill Prevention and Response Plan, and Chance Find Contingency Plan

The SPPL Emergency Response Plan is a detailed, site-specific response plan that governs Imperial’s existing pipeline and has supported safe operation since installation. The revisions made to this plan outline how the HWN and other Indigenous communities will be engaged in emergency response. Imperial is in the process of responding to the comments provided by the HWN.

Imperial has accelerated the development of the Spill Response Plan and the Chance Find Contingency Plan to accommodate review by the HWN. These plans are still in draft form and will be finalized prior to construction and shared with Indigenous communities engaged on the Project. Imperial is in the process of responding to all the comments provided by the HWN and is working to address these comments and feedback where possible.

Imperial has responded to all of the HWN’s specific concerns identified to date and is committed to ongoing engagement with the HWN to address any other specific concerns.

HWN archaeology concerns

Imperial would like to clarify that these concerns were addressed in Imperial’s Sept. 13, 2019 Letter to the MENDM, included as Attachment 1 to this Letter. Specifically, Imperial’s Sept. 13, 2019 Letter outlines:

- An explanation of the recovery and condition of artifacts found in proximity to the Parsons Site; no artifacts have been destroyed; and

- A description of the highly-utilized transmission corridor (pipelines, transmission towers and other utilities) that passes through the Parsons Site and Imperial's commitment to no disturbance and avoidance of the area through the use of Horizontal Directional Drilling.

While Imperial is committed to addressing the HWN's concerns through ongoing engagement, Imperial does not agree that a Letter of Sufficiency may only be issued once HWN, at its sole discretion, is satisfied with the accommodation measures proposed by Imperial.

Imperial appreciates the MENDM's attention to this matter and would be pleased to address any questions from the MENDM.

Sincerely,



Jessie Malone, P.Eng.
Environmental and Regulatory Lead

- cc. The Honourable Greg Rickford, Minister of Energy, Northern Development and Mines
Grand Chief Sioui, Huron-Wendat Nation, c/o Maxime Picard
Maxime Picard, Ontario Projects Coordinator, Huron-Wendat Nation
Renée Pelletier, Managing Partner, OKT LLP
Board Secretary, Ontario Energy Board
Sherri Evers, Fuels Manager Central/Eastern Canada, Imperial
Kelly Williams, Community Liaison, Imperial
Zahra Allidina, Counsel, Imperial
Richard King, Partner, Osler, Hoskin & Harcourt LLP

Attachments:

Attachment 1 – Letter from Imperial dated September 13, 2019 to the MENDM

Attachment 1:
Letter from Imperial dated September 13, 2019 to the MENDM
(with attachments)



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September 13, 2019

Emma Sharkey
Senior Advisor
Ministry of Energy, Northern Development and Mines
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Re: Sept. 4, 2019 Nation Huronne-Wendat letter re: Indigenous Consultation – Imperial’s Waterdown to Finch Pipeline Project – EB-2019-0007

Dear Ms. Sharkey,

This communication is intended to provide additional clarity and context in response to various matters outlined in the Nation Huronne-Wendat (NHW) Sept. 4, 2019 letter to the Ministry of Energy, Northern Development and Mines (MENDM) regarding Indigenous consultation for Imperial’s Waterdown to Finch Project (the Project).

Imperial conducts business in a manner that respects the land, environment, rights and cultures of Indigenous communities. We seek to understand Indigenous perspectives on issues of mutual interest and to deal constructively with differing views. Imperial is addressing concerns through ongoing engagement and consultation directly with the NHW and its legal representative to determine appropriate actions. This engagement will continue until the Project is complete. Imperial is also addressing NHW concerns through the formal Leave to Construct regulatory process, administered by the Ontario Energy Board (OEB), where the NHW has requested and received intervenor status. Imperial addressed initial interrogatories from NHW through this process on Aug. 6, 2019 and the subsequent written hearing proceedings are scheduled for Sept. 20, 2019.

Imperial recognizes that the NHW has strong historical settlement ties in southern Ontario on the north shore of Lake Ontario, and acknowledges the interest of NHW in the archaeological assessment work, particularly the interest in the participation of Indigenous Field Monitors and in reviewing the Archaeological Assessment reports. Imperial is following all requirements as set out in the Ontario Heritage Act and the Ministry of Tourism, Culture and Sport (MTCS) Standards and Guidelines for Consultant Archaeologists. In addition to working with a licenced archeologist, Imperial will continue to include Indigenous Field Monitors in the archaeological assessment fieldwork for the Project.

Through the OEB’s Leave to Construct process, within its completed set of interrogatory responses, there are specific details regarding how Imperial and its licenced consultant archaeologist will develop a site avoidance and protection plan for the Parsons Site. Imperial will continue to consult and engage NHW during the development of this plan and will provide a draft of the plan for review prior to implementation. This plan will describe in detail the avoidance and protection measures that will be implemented and enforced before, during and after construction activities.

Consultation Summary

Imperial has been clear in its commitment to ongoing consultation and engagement with Indigenous communities impacted by the Project, including the NHW. Imperial continues to consult and engage NHW in a robust manner that meets regulatory requirements. This is demonstrated in Imperial’s Indigenous Consultation Report (February 2019) and Imperial’s Response to Information Requests (August 2019), which include an updated engagement summary (provided directly to the MENDM on Aug. 6, 2019) and Imperial’s interrogatory responses to NHW’s specific requests (Attachment 1).

Following Imperial’s August 2019 regulatory submissions, which reflect interactions to the end of June 2019, consultation and engagement with NHW has continued, including ongoing discussions with respective legal representatives. A summary is provided in Attachment 2.

Recent Concerns/Requests and Responses

Recent Project-specific concerns/requests and Imperial's responses are summarized in Attachment 3.

Parsons Site Avoidance

A highly-utilized transmission corridor near Sentinel Road and Murray Ross Parkway in an urbanized area of North York, Toronto passes through the Parsons Site. This corridor has been previously disturbed for industrial development. Pipelines, transmission towers and other utilities, such as water lines, already cross the Parsons Site.

The Project plans to protect the integrity of the Parsons Site through the proposed use of Horizontal Directional Drilling (HDD) trenchless installation technology (outlined in Attachment 4). This approach would allow Imperial to avoid the site by installing the pipeline with entry and exit points well outside of the known boundaries of the Parsons Site and up to 30 metres below the surface.

HDD is considered one of the least intrusive methods for installing an underground pipeline. This technique is a proven way to accommodate features such as watercourses, highways, wetlands and other sensitive areas, like the Parsons Site. HDD allows for the pipeline to be installed underground using specific entry and exit points to avoid any surface level or near-surface level disruptions.

Recovery of Artifacts

The Stage 2 work at these two borehole locations is for the purpose of determining the geotechnical information required to design the HDD. The entry and exit points of the HDD are well beyond the known limits of the Parsons Site. No additional work beyond the Stage 2 archaeology clearance at the two borehole locations is planned in proximity to the Parsons Site. With respect to the archaeological materials in proximity to the Parsons Site that were recovered while undertaking initial Stage 2 test pitting, the finds are identified as five small (<1cm diameter) body sherds (pottery) and one small (<1cm) Onondaga chert flake fragment. These finds are currently housed at the Past Recovery firm. The Past Recovery firm recommends that the artifacts be combined with the existing Parsons Site artifacts recovered in previous assessments. The Past Recovery firm recommends that the finds be included in the Parsons Site, and, as such, will slightly alter the site limits and buffers. Site limit changes will be confirmed with NHW and MTCS. In response to these finds, Imperial provided the Parsons Site memo (Attachment 5) to NHW on July 7, 2019, which identifies Imperial's plans to relocate two boreholes planned in proximity to the Parsons Site.

Imperial appreciates the MENDM's attention to this matter and would be pleased to address any questions from the MENDM.

Sincerely,



Jessie Malone, P.Eng
Environmental and Regulatory Advisor

Cc. Maxime Picard, Ontario Projects Coordinator, NHW maxime.picard@cnhw.qc.ca
Andrea Williams, Archaeology Review Officer, MTCS andrea.williams@ontario.ca

Attachments:

- Attachment 1 – Imperial's interrogatory responses to NHW's specific requests
- Attachment 2 – Summary of recent engagement
- Attachment 3 – Recent concerns/requests and responses
- Attachment 4 – HDD installation
- Attachment 5 – Parsons Site memo

Attachment 1 - Imperial's
interrogatory responses to
NHW's specific requests

54. HWN-1

54.1 Reference

Exhibit D, Tab 1, Schedule 1

54.2 Preamble

The Ontario Energy Board's Environmental Guidelines for the Location, Construction, and Operation of Hydrocarbon Pipelines and Facilities in Ontario ("OEB Environmental Guidelines") requires proponents to evaluate alternative pipeline routes and to assess the impacts of each alternative route, including impacts on the social and cultural components of the environment.

The OEB Environmental Guidelines provide that assessment of the impact of a proposed project on cultural heritage resources should inform decisions in the pipeline development planning stage, and requires that proponents demonstrate due diligence by protecting cultural heritage resources by appropriate conservation, avoidance and mitigation.

54.3 Information Request

- a. Please provide all evidence that Imperial Oil Ltd. ("Imperial") and/or its consultant(s) considered and developed assessments of alternative routes, including, but not limited to:
 - i. evaluating impacts on the Huron-Wendat Nation's inherent and treaty-based right to the integrity of its archaeological and burial sites;
 - ii. evaluating impacts on the important Huron-Wendat Nation archaeological site known as the Parsons Site (AkGv-8) (the "Parsons Site"), specifically;
 - iii. assessing impacts of route evaluation and selection, construction, and operation on cultural heritage features, including the Parsons Site; and
 - iv. assessing appropriate avoidance and mitigation of impacts to archaeological sites, including the Parsons Site.
- b. Please provide any such reports, evaluations and assessments.

54.4 Imperial Response

- a.
 - i. Imperial recognizes the significance of archaeological and burial sites to HWN. The Stage 1 archaeological assessment report (Past Recovery 2019) was used by Imperial to identify known archaeological sites and cultural heritage resources within the proposed Project footprint to evaluate potential impacts to these resources and evaluate alternative routes and/or mitigation measures. As the Stage 2 archaeological assessment progresses and additional sites within the Project footprint are identified, Imperial will continue to evaluate the pipeline route and/or mitigation measures for each site. As part of its commitment to consultation and engagement for the Project, Imperial will continue to seek input from HWN regarding recommendations for mitigation of impacts to archaeological resources.
 - ii. Following Imperial's review of the Stage 1 archaeological assessment report (Past Recovery 2019), which identified the Parsons Site as a significant archaeological site, Imperial considered mitigation measures to avoid impacts to the Parsons Site. An alternate route was evaluated as part of the Environmental Report (Section 2.6), which would have avoided the Parsons Site. However, based on design, environmental and socioeconomic considerations

and constraints, the alternative route was deemed not feasible. Therefore, a plan for avoiding impacts to the Parsons Site during construction and operation through the use of HDD trenchless technology pipeline installation methods is being developed and will be provided to the HWN for review and comment.

- iii A similar process as outlined in part ii. above will be used to assess impacts of the route on any other cultural heritage feature within the Project footprint, as necessary.
 - iv As discussed above, Imperial will continue to consider and develop appropriate avoidance and mitigation measures for the Parsons Site and other archaeological sites within the Project footprint in consultation with Indigenous communities, including HWN.
- b. Imperial refers the reader to the following reports:
- Waterdown to Finch Project Environmental Report (ERM 2019), and
 - Stage 1 Archaeological Assessment for the Proposed Waterdown to Finch Project (Past Recovery 2019).

In addition to the above listed reports, Imperial and its consultants are currently drafting an Archaeology Site Avoidance Strategy. This will be provided to all Indigenous communities for review and comment.

55. HWN-2

55.1 Reference

Exhibit D, Tab 1, Schedule 2

Exhibit E, Tab 1, Schedule 2

Environmental Report at 5.4.7, page 5-32

55.2 Preamble

Imperial's Environmental Report, which is a component of the Leave to Construct Application, states that Imperial will endeavour to avoid known archaeological sites to the greatest extent possible through routing evaluation and maintenance of appropriate buffers; that trenchless installation methods will be used to mitigate impacts to known archaeological sites, (e.g. the Parsons Site); and where mitigation measures are not achievable, will undertake Stage 3 and potentially Stage 4 Archaeological Assessments prior to construction.

55.3 Information Request

- a. Please provide Imperial and/or its consultants' research, evaluations, assessments and reports regarding:
 - i. the Parsons Site's location, depth, width, and length, including any research, evaluations, assessments and reports regarding uncertainty on any of these items;
 - ii. the expanse or length for which Imperial intends to use trenchless installation in the vicinity of the Parsons Site, and how Imperial determined the appropriate expanse or length;
 - iii. potential impacts of trenchless installation on the Parsons Site, including the potential impacts of associated vibration and soil disturbance; and
 - iv. the feasibility of the trenchless installation method for the area of the Parsons Site, including any and all engineering reports.
- b. Please provide Imperial and/or its consultants' research, evaluations, assessments and reports regarding what constitutes an appropriate buffer area for archaeological sites, including for the Parsons Site.
- c. Please outline what Imperial intends to use as an appropriate buffer area for archaeological sites, including for the Parsons Site, and its rationale for this determination.
- d. Please outline how Imperial will determine whether it is necessary to conduct Stage 3 and/or Stage 4 Archaeological Assessments, including how Imperial will assess mitigation and avoidance opportunities such as routing changes, including Imperial's plans for engagement, consultation and accommodation of affected First Nation(s).
- e. Please outline Imperial's plans for conducting Stage 3 and/or Stage 4 Archaeological Assessments in the event that such assessments are necessary, including details on:
 - i. involvement of First Nation monitors;
 - ii. how Imperial will use the information gathered through the participation of First Nation monitors;
 - iii. how Imperial will provide up-to-date information, including information gathered through the participation of First Nation monitors, to the participating First Nation(s);

- iv. how Imperial will involve First Nation(s) in reviewing and commenting on the Stage 3 and/or Stage 4 Archaeological Assessment reports;
- v. how Imperial will advise First Nation(s) of any responses from the Ministry of Tourism, Culture and Sport ("MTCS") on the Archaeological Assessment reports filed with it;
- vi. how Imperial will ensure that any artifacts recovered in the course of Stage 3 and/or Stage 4 Archaeological Assessment work are appropriately stored and/or returned to the affected First Nation, where applicable; and
- vii. how Imperial will ensure that First Nation(s) have the opportunity and capacity funding to complete any ceremonies necessary due to the Stage 3 and/or Stage 4 Archaeological Assessment work.

55.4 Imperial Response

a.

- i. The Parsons Site is situated on the main terrace above the east bank of Black Creek, extending across and to the north and south of the HONI corridor. Although there have been numerous excavations on the Parsons Site going back to the 1950s, only a small portion of the village has been systematically excavated and reported on. As such, the full extent of the site remains unknown. The most recent detailed site mapping suggests that the main village (as defined by the palisade walls) is approximately 385 m NNW-SSE and approximately 250 m WSW-ENE (see b below for relevant reports). The 1989-1990 excavations identified the western palisade partway down the slope above Black Creek. The deepest feature identified in 1989-1990 was c. 65 cm deep.
 - ii. The Project will use an approximately 1 km long horizontal directional drill to cross below the Parsons Site. Recognizing the significance of the Parsons Site, Imperial has planned to extend the HDD from the west side of Black Creek to the east side of Sentinel Road resulting in a c. 400 m buffer to both the east and west of the Parsons Site as defined by the village palisade and identified middens. This buffer will be reconsidered if required based on the results of the completed Stage 2 assessment.
 - iii. To complete the trenchless installation of the pipeline, Imperial and its construction contractor will be using the latest drilling technologies and best practices including accurate steering and modern fluid mixing systems. This will reduce the likelihood of potential impacts associated with HDD trenchless technology. Any vibration would be at the location of the drilling rig which will be located at a distance from the Parsons site.
 - iv. Based on preliminary geotechnical data, Imperial has determined that trenchless installation is feasible near the Parsons site. This preliminary geotechnical data will be supplemented by site-specific geotechnical investigations that will inform the engineering design of the drill. Once geotechnical investigations have been completed, the engineering report will be shared with HWN.
- b. Appropriate archaeological site buffers are defined in the Standards and Guidelines for Consultant Archaeologists (MTCS 2011). Following the completion of a Stage 2 archaeological assessment of a property, these include a 20 m protective buffer around the site as defined by positive Stage 2 test pits or surface finds with an additional 50 m monitoring buffer where any ground disturbing activities must be monitored by a licenced archaeologist. Following the completion of a Stage 3 archaeological assessment, the protective buffer for Indigenous Woodland village sites is a minimum 20 m and the protective buffer for other sites is 10 m.

Imperial recognizes that these buffers may not be appropriate in all situations, especially when the site has not been subject to a comprehensive, systematic archaeological assessment, as is the case with the Parsons Site. As such, appropriate site buffers will be evaluated on a site-by-site basis and in consultation with First Nations and MTCS, as appropriate.

With respect to the Parsons Site, a review of previous archaeological assessments associated with the site was undertaken as part of the archaeological assessment process for this Project. This included a review of the following reports:

Archaeological Services Inc.

1990. Mitigation of the Parsons Site (AkGv-2) Interim Report. Report on file, ASI office, Toronto.

1989. Final Report for an Archaeological Resource Assessment of the Water Main Route from Richview Pumping Station to Keele Reservoir. Report on file at ASI office, Toronto.

URS Canada Inc. (URS)

2015. Report on the Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8) City of Toronto Multi-Use Pathways Project, Municipal Class Environmental Assessment, City of Toronto, Ontario. Report on file, Ontario Ministry of Tourism, Culture and Sport, Toronto.

2013. Stage 2 Archaeological Assessment: City of Toronto Multi-Use Pathways Project (Revised). Report on file, Ontario Ministry of Tourism, Culture and Sport, Toronto.

2011. Stage 1 Archaeological Assessment: City of Toronto Multi-Use Pathways Project (Revised). Report on file, Ontario Ministry of Tourism, Culture and Sport, Toronto.

Edited volume

1998. The Archaeology of the Parsons Site: A Fifty Year Perspective. Ontario Archaeology No. 65/66.

The most recent Site Registration Form for the Parsons Site filed with the MTCS following the URS Stage 4 mitigation of the pathway through the site delineates the site based on the location of the village palisade (and some recorded middens outside the palisade) and includes a 20 m protective buffer beyond these limits. Imperial recognizes that archaeological resources forming part of the Parsons Site are likely to occur beyond the palisade walls and the middens identified during previous archaeological investigations. At present, impacts in close proximity to the Parsons Site are limited to two boreholes required for geotechnical information in support of the development of the HDD plan.

Additionally, Imperial recognizes that ossuaries are often associated with Indigenous village sites and that these, and indeed any burials, are of particular concern to First Nations. In general, the Project recognizes a one kilometre (1000 m) buffer surrounding village sites as an area of high potential for ossuaries. All areas of the TWS within 1 km of the known Parsons Site boundary will be shovel tested to determine if cultural materials are present. During construction, archaeological and First Nations monitoring of construction of the Project will be undertaken between Jane Street and Keele Street. Construction excavation will involve the careful removal of the sod and topsoil and/or fill deposits using an excavator with a smooth-edged ditching bucket. This will be followed by hand "shovel-shining" of the exposed subsoil to check for archaeological features. Areas of fill clearly associated with deep disturbance (existing underground utilities) and areas already cleared of archaeological concerns would be excluded from shovel-shining.

- c. As outlined above, appropriate site buffers will generally follow MTCS Standards, but will be determined on a case by case basis. For the Parsons Site, given the uncertain limits for the site,

Imperial is seeking to extend the HDD from the west side of Black Creek to the east side of Sentinel Road resulting in a c. 400 m buffer to both the east and west of the Parsons Site as defined by the village palisade and identified middens. This buffer will be reconsidered if required based on the results of the completed Stage 2 assessment.

- d. The Standards and Guidelines for Consultant Archaeologists (MTCS 2011) provide criteria for determining when archaeological finds require further assessment through Stage 3 and/or Stage 4 assessments. These criteria include the number and nature of artifacts recovered, their context, and the presence of archaeological features. While following these criteria, recommendations for Stage 3 and/or Stage 4 assessments of Indigenous sites will be made in consultation with appropriate First Nations through the continued consultation and engagement process.

A Stage 4 assessment may include mitigation of a site through excavation and/or avoidance and protection. Imperial recognizes that site avoidance and protection is generally the preferred mitigation approach and will seek to implement this approach wherever feasible.

e.

- i. Imperial will continue to include First Nation monitors in the archaeological assessment fieldwork for the Project, including for any Stage 3 and/or Stage 4 assessments undertaken on sites with Indigenous concerns.
- ii. Imperial values the information provided by the First Nation monitors participating in the fieldwork and their comments, insights and concerns are shared with personnel on-site and recorded in daily field records. Information from First Nation monitors is considered in guiding fieldwork methods and in developing appropriate assessment strategies.
- iii. Imperial is committed to ongoing engagement with Indigenous communities, including HWN regarding the Project throughout consultation and construction. Updates on the Stage 3 and/or Stage 4 Archaeological Assessments will be provided in addition to other communication between Imperial and the Indigenous communities, including HWN. It is Imperial's opinion that communication has been effective. Imperial is open to HWN's suggestions on improvements.
- iv. Imperial will provide First Nations with draft copies of all archaeological assessment reports, including Stage 3 and Stage 4 assessments, for their review and comment prior to or in parallel to these reports being submitted to MTCS.
- v. Imperial will provide First Nations with copies of the final archaeological assessment reports as accepted by MTCS and with copies of the MTCS review letters for these reports.
- vi. According to the *Ontario Heritage Act* and the MTCS Standards and Guidelines for Consultant Archaeologists (MTCS 2011), the archaeologist under whose licence an archaeological assessment is undertaken is required to appropriately store all materials (artifacts, field records, etc.) until they can be transferred to a government approved cultural facility. Collections arising from any archaeological assessments undertaken as part of the Project will be properly maintained by the archaeologist until an appropriate transfer has occurred. Imperial will work with the First Nations to return all collections of Indigenous concern to the appropriate community and/or deposited in an appropriate cultural facility. This will include filing the appropriate paperwork with MTCS.
- vii. To date, Imperial has been providing capacity funding to Indigenous communities, including HWN for Project engagement, including archaeology field monitor participation, archaeology report reviews and meeting travel costs. If Indigenous communities, including HWN, identify additional specific capacity funding requirements relevant to Project engagement and consultation, including ceremonies at the site, Imperial is open to considering reasonable requests.

56. HWN-3

56.1 Reference

Exhibit E, Tab 1, Schedule 6

Exhibit D, Tab 1, Schedule 4

56.2 Preamble

Imperial plans to commence construction in the fourth quarter of 2019. Stage 2 Archaeological Assessment work is currently ongoing.

56.3 Information Request

- a. Please outline how affected First Nation(s) will be involved in reviewing and commenting on the Stage 2 Archaeological Assessment report.
- b. Please provide the date by which Imperial will file the results of the Stage 2 Archaeological Assessment and indicate whether and when Imperial expects to receive comments from MTCS with regard to this Assessment.
- c. If archaeological sites are identified through the Stage 2 Archaeological Assessment, please identify what steps Imperial will take to ensure that appropriate avoidance or mitigation measures are taken to protect the sites, including what steps Imperial will undertake with respect to consultation and accommodation of First Nation(s).
- d. If such avoidance or mitigation measures will impact the project schedule, please identify how Imperial will adapt its schedule to ensure that the appropriate avoidance and/or mitigation measures are undertaken.

56.4 Imperial Response

- a. Imperial will provide the affected First Nations with a draft of the Stage 2 archaeological assessment report for review and comment prior to or in parallel to submitting the report to MTCS.
- b. The date for filing the Stage 2 archaeological assessment is dependent on the completion of the Stage 2 archaeological fieldwork and the associated analysis and reporting time required to complete the report. MTCS report review times are typically a minimum of 60 business days from the date of report submission assuming that an expedited report review has been approved by MTCS.
- c. In advance of completing the full Stage 2 archaeological assessment report, Imperial is preparing interim summary reports for archaeological findspots/sites found. These reports will include information on the nature of the finds, mapping and recommendations for any further archaeological assessment (including avoidance and protection). The interim reports will be provided to the First Nations for their review and comment as part of ongoing consultation and engagement. Consultation and engagement will help inform the preparation of final recommendations for site mitigation to be included in the full Stage 2 archaeological assessment report.
- d. The schedule will be adjusted to allow for archaeological concerns to be addressed. This will include meeting all MTCS requirements and undertaking appropriate consultation and engagement with the First Nations.

57. HWN-4

57.1 Reference

Exhibit G, Tab 1, Schedule 1

57.2 Preamble

Imperial's Guiding Principles include that "in areas where Imperial operates, Indigenous communities are engaged through consultation, employment and business development and educational program investments."

57.3 Information Request

- a. Please outline the employment, business development and educational program investment activities Imperial will undertake with the Huron-Wendat Nation.

57.4 Imperial Response

- a. Imperial is currently considering the construction contracting strategy for the Project and will share more information as it becomes available. Indigenous community businesses, including HWN businesses may pursue sub-contracting opportunities directly with Imperial's general contractor and Imperial shall facilitate and assist in such discussions, if requested by HWN. Also, Imperial will provide resources relevant to general business opportunities.

Imperial is open to considering sponsorship and capacity building opportunities with communities. Please direct HWN's requests to the Project Community Liaison Officer.

58. HWN-5

58.1 Reference

Exhibit G, Tab 1, Schedule 1

Exhibit H, Tab 2, Schedule 5

58.2 Preamble

Imperial's Guiding Principles include that "Imperial endeavours to understand Indigenous perspectives on issues of mutual interest, to deal constructively with differing viewpoints and to engage Indigenous communities and their representatives in open and forthright consultation. Imperial maintains an open and ongoing dialogue about the Project with Indigenous leaders, community members and their designated representatives by: respecting traditional practices, decision-making processes...[and] cultural activities..."

58.3 Information Request

- a. Please outline Imperial's understanding of the Huron-Wendat Nation's traditional practices with respect to the protection of archaeological and burial sites, such as the Parsons Site.

58.4 Imperial Response

- a. Following the direction in MENDM's September 10, 2018 letter to Imperial outlining the delegation of the Duty to Consult, Imperial has been consulting Indigenous communities.

The HWN Engagement Summary tables in Appendix 11 outline the information provided by Huron-Wendat Nation regarding traditional practices with respect to the protection of archaeological and burial sites, such as the Parsons site and the discussions between HWN and Imperial regarding the Parsons site and protection of archaeological and burial sites.

Imperial continues to consider this information in discussion of appropriate mitigation measures with HWN. If HWN has additional information to provide or if Imperial has misunderstood information provided, Imperial is open to considering further input.

59. HWN-6

59.1 Reference

Exhibit G, Tab 1, Schedule 1

59.2 Preamble

Imperial states that as new information arises throughout the consultation process, Imperial will consider the information received and incorporate changes into project design, as appropriate.

Imperial is aware that the Parsons Site has recently been disturbed by the Project work being undertaken.

59.3 Information Request

- a. Please provide all evidence that Imperial and/or its consultant(s) has considered and developed assessments of project design changes, including alternate routing options, in response to the recent disturbance to the Parsons Site.
- b. Please provide all research, evaluations, assessments and reports regarding possible project design changes, including alternate routing options, relating to this event.
- c. Please provide any and all correspondence between MTCS and Imperial regarding the disruption of the Parsons Site.

59.4 Imperial Response

- a. Given the significance of the Parsons Site, Imperial has proposed an increased certainty of avoidance of the Site by designing the HDD entry location to the east side of Sentinel Road, placing it c. 400 m east of the documented location of the eastern palisades for the village. By placing the HDD entry at this location, it is proposed, in addition to avoiding impact to the modern infrastructure, the potential of impacting this archaeological site is reduced. Confirmation that the HDD entry location does not hold further archaeological potential will be completed through appropriate archaeological field assessments prior to construction.

The current avoidance measures to be implemented by the Project is the use of HDD trenchless technology. Imperial understands that both MTCS and the First Nations communities have concerns associated with the use of HDD trenchless technologies resulting in impacts to unassessed sites.

To address these concerns related to HDD trenchless technologies and to avoid impact to archaeological sites, this strategy will be refined in coordination with site-specific, detailed engineering to confirm that identified concerns are addressed. Of particular consideration will be the depth of the HDD as it extends from the entry/exit points.

The archaeological assessment will be conducted along the centreline to a distance of 50 m inside of the HDD entry and exit to identify any archaeological sites in the shallowest areas of the HDD. Pending final design, it is expected that the pipeline will be more than 10 m deep beyond 50 m along the HDD path, thereby reducing risk of frac-out, slumping, and pipeline discharge to surface. During operations, in the unlikely event of an integrity issue with the pipeline in an area installed using HDD trenchless technology, the section of the pipe would be isolated and abandoned, , and a new pipe would be installed using HDD trenchless technology.

The proposed Borehole 136 is located in close proximity to the Parsons Site. Past Recovery, ERM and Imperial propose moving Borehole 136 from its originally planned location approximately 23 m west on to the previously assessed pathway. At this proposed location, the

geotech rigs would bore through the cement pathway and extend into an area clear of archaeological concern. The pathway was assessed by URS Canada archaeologists in 2011 through Stage 4 construction monitoring. The assessment removed all topsoil with a Link-Belt 210 excavator equipped with a smooth ditching bucket. The area was subsequently shovel-shined to confirm no cultural features or archaeological resources were present in the subsoil. The report concluded that the pathway and the soil underneath is considered clear of any further archaeological concern.

- b. The following two reports are currently being developed and will be provided to all Indigenous communities for review:

Archaeology Site Avoidance Strategy Memo

Parsons Site – Borehole Assessment Update

- c. The results of the Stage 2 assessment, including the limited test pitting that was done at the Parsons Site for the original location of BH136 (described above) will be fully reported on in the Stage 2 report. To date, there has been no correspondence with MTCS regarding this event.

60. HWN-7

60.1 Reference

Exhibit D, Tab 1, Schedule 2

Environmental Report at 7, p. 7-4

60.2 Preamble

Imperial states in its Environmental Report that a "Chance Find" Archaeological Resources Contingency Plan will be implemented if unknown archaeological resources are discovered during construction.

60.3 Information Request

- a. Please provide any drafts of this plan that Imperial has created to date, and/or, if Imperial intends to base this plan on an existing plan for another project, please provide copies of said plan.
- b. Please outline the steps that Imperial will take with respect to consultation and accommodation of First Nation(s) in the development and implementation of the "Chance Find" Archaeological Resources Contingency Plan.
- c. Please outline the training that Imperial intends to provide its construction crews in order to ensure that personnel on site can identify artifacts, such that the "Chance Find" Archaeological Resources Contingency Plan protocols will be initiated.
- d. Please outline the steps Imperial will take in the event that artifacts are uncovered during construction, including the steps that Imperial will take with respect to:
 - i. temporary and permanent storage of artifacts;
 - ii. return of artifacts to affected First Nation(s); and
 - iii. provision of the opportunity and capacity funding to First Nation(s) to perform any necessary ceremonies at the site.

60.4 Imperial Response

- a. Prior to construction, Imperial will develop a Project-specific Chance Find Heritage Resources Contingency Plan to be implemented during the construction phase of the Project. Imperial is in the process of drafting this plan and can commit to providing it to First Nation communities for review and comment once available.
- b. Imperial is committed to providing the draft "Chance Find" Heritage Resources Contingency Plan to HWN and the other Indigenous communities. Imperial will consider HWN and the other communities' input and update the protocol and/or provide responses, as appropriate.
- c. Employees and on-site personnel/contractors will receive site orientation and training regarding compliance with the Project's "Chance Find" Heritage Resources Contingency Plan. All new employees will receive site orientation and training during their induction and the training will focus on the procedure in place for responding to newly identified sites and how to report these sites or observed site impacts. Training records will be kept and maintained.
- d.
 - i. Please refer to Imperial's response to ii. below.

- ii. As discussed above in response to HWN-2, as required by the *Ontario Heritage Act* and the *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011), Imperial's licenced consultant archaeologist(s) will be responsible for the temporary storage of all artifacts for the Project until an approved permanent has been identified and the collection transfer has been finalized. Imperial and its licenced consultant archaeologist(s) will consult with the First Nations to confirm the appropriate permanent disposition of all artifacts and, where appropriate, their return to the affected First Nation.
- iii. To date, Imperial has been providing capacity funding to Indigenous communities, including HWN for Project engagement, including archaeology field monitor participation, archaeology report reviews and meeting travel costs. If Indigenous communities, including HWN, identifies additional specific capacity funding requirements relevant to Project engagement and consultation, including ceremonies at the site, Imperial is open to considering reasonable requests.

61. HWN-8

61.1 Reference

Exhibit D, Tab 1, Schedule 4

61.2 Preamble

Stage 2 Archaeological Assessment work is currently underway. The Standards and Guidelines for Consultant Archaeologists (MTCS 2011) recommends that such work be undertaken through test pits.

The Standards and Guidelines for Consultant Archaeologists (MTCS 2011) recommends that such test pits be dug to 5 cm below the subsoil.

Huron-Wendat ossuaries are typically found well below these levels, with the most visible signs (the presence of bones) visible from anywhere between 20 cm to over 2 m below the subsoil.

61.3 Information Request

- a. Please outline the steps that Imperial will take to detect ossuaries in the Project area.
- b. Please outline the training that Imperial will provide, or require to be provided, to its archaeological consultant on the detection of Huron-Wendat ossuaries.
- c. Please outline the training that Imperial will provide to its construction crews on how to respond in the event that bones are uncovered.
- d. Please outline what steps Imperial will take in the event that bones are uncovered during construction, including consultation and accommodation of First Nation(s).
- e. In the event that a Huron-Wendat ossuary is found in the Project area, please outline the steps that Imperial will take to:
 - i. consult with the Huron-Wendat Nation on appropriate protection and preservation measures for the site;
 - ii. implement such protections and preservation measures in order to avoid disturbance of the ossuary;
 - iii. ensure that the Huron-Wendat Nation is able to perform any necessary ceremonies relating to the ossuary, including by providing capacity funding; and
 - iv. commemorate the ossuary in a manner deemed appropriate by the Huron-Wendat Nation.

61.4 Imperial Response

- a. Wherever feasible, Stage 2 test pits are being dug into sterile subsoil with the subsoil carefully examined to confirm that there is no indication of disturbance indicative of a feature, including an ossuary pit, within the subsoil. Where compact fill deposits prevent hand excavated test pits from reaching subsoil, alternative assessment methodologies (including the use of mechanical excavation) will be considered and implemented, as appropriate.
- b. The archaeological assessment work of the Project is under the direction of licenced consultant archaeologists and, as required by MTCS, the field directors are also licenced (either P- or R-licences). The field crew are not required to be licenced, however have a range of experience (from limited to more than 20 years of fieldwork) and are under the direct supervision of the licencees. Licenced consultant archaeologists in Ontario are required to have a combination of academic training and extensive field, analysis and reporting experience on Stage 1 through

Stage 4 assessments of a variety of sites. The recognition of sub-soil cultural features, including ossuaries, is an essential part of this training and experience.

During construction, if bones or ossuaries are identified the Huron-Wendat Nation will be notified in accordance with the Heritage Resources Contingency Plan.

- c. A "Chance Find" Heritage Resources Contingency Plan will be prepared and followed in the event that bones (or other potential heritage resources) are uncovered during construction. On-site personnel will receive site orientation and training regarding compliance with the Plan.
- d. Both the *Ontario Heritage Act*, and the *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) include specific protocols to be followed in the event that human remains are uncovered either during the course of an archaeological assessment or by accident during construction or other activities. These include an immediate cessation of work, securing the area of the find and the notification of appropriate authorities (police, coroner, Registrar of Cemeteries, etc.) to determine whether the finds constitute a crime scene. If the finds are determined not to constitute a crime scene, the Registrar of Cemeteries will institute an investigation, typically including a licenced archaeologist. If there is any indication that the remains may be Indigenous, appropriate First Nations must be notified immediately of the find and involved in the mitigation of the find.
- e.
 - i. Imperial will follow the requirements of the *Ontario Heritage Act* and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, C. 33 and engage with the relevant Indigenous communities.
 - ii. The person in charge of the work shall immediately contact MTCS, the Cemeteries Regulation Unit of the Ontario Ministry of Consumer Relations, the appropriate municipal police, the local coroner, and Imperial's archaeologist, if applicable. All excavation and other activity that could disturb the site shall immediately cease, and the area shall be secured in a manner which protects the site location and prevents public access and trespass.
 - iii. To date, Imperial has been providing capacity funding to Indigenous communities, including HWN for Project engagement, including archaeology field monitor participation, archaeology report reviews and meeting travel costs. If Indigenous communities, including HWN, identifies additional specific capacity funding requirements relevant to Project engagement and consultation, including ceremonies at the site, Imperial is open to considering reasonable requests.
 - iv. Imperial is open to considering reasonable requests to commemorate an ossuary, should the situation arise.

62. HWN-9

62.1 Reference

Exhibit D, Tab 1, Schedule 3

Exhibit D, Tab 1, Schedule 2

Environmental Report at 7, p. 7-2

62.2 Preamble

Imperial intends to develop a Spill Prevention and Response Plan to provide the Project with guidance in the development of prevention, contingency planning, and reporting practices for the timely and effective prevention and response to potential inadvertent, construction-related releases to land and surface water.

Imperial also intends to develop an Environmental Protection Plan and several management and contingency plans.

62.3 Information Request

- a. Please advise whether Imperial intends to develop an emergency response plan to mitigate and manage potential impacts of a spill on archaeological sites, including the Parsons Site.
 - i. If Imperial does not intend to do so, please provide Imperial's rationale;
 - ii. If Imperial does intend to do so, please provide any drafts of this plan that Imperial has created to date, and/or, if Imperial intends to base this plan on an existing plan for another project, please provide copies of said plan.
- b. Please outline any consultation and accommodation steps undertaken by Imperial with First Nations with respect to the creation of an emergency response plan to mitigate and manage potential impacts of a spill on archaeological sites.

62.4 Imperial Response

- a.
 - i. Pertaining to the construction of the Project, Imperial will mitigate disturbance to known sites with Cultural Heritage Value or Interest (CHVI) through avoidance or Stage 3/4 archaeological assessment. Avoidance strategies for sites that retain CHVI will include, but are not limited to, realignment or utilization of trenchless installation methods such that there will be no surface activity within a known site with residual CHVI. Where trenchless crossings will be located, detailed geotechnical investigations are underway that will inform appropriate site-specific crossing design, including the HDD of the Parsons Site, such that the risk of inadvertent returns is negated. For these reasons, it is not Imperial's intent to develop an emergency response plan for potential impacts of a spill on archaeological sites during Project construction beyond the "Chance Find" Archaeological Resources Contingency Plan.
 - ii. See response to (i).
- b. Imperial has an Operational Emergency Response Plan in place for the Sarnia Products Pipeline and is updating this plan for the operation of the Project. Imperial will share the plan with Indigenous communities. The Indigenous community component of the plan is still being developed and Imperial intends to engage with Indigenous communities, including HWN to

develop a notification protocol in the event of an incident on the SPPL. Additionally, Imperial is developing a Spill Prevention and Response Plan for Project construction and Imperial will engage Indigenous communities, including HWN in its development related to potential impacts of a spill on archaeological sites.

63. HWN-10

63.1 Reference

Exhibit G, Tab 1, Schedule 1

63.2 Preamble

Imperial's Guiding Principles include that Imperial conducts its business in a manner that respects the land, environment, rights and cultures of indigenous communities.

63.3 Information Request

- a. Please advise how Imperial will ensure that the Huron-Wendat Nation is able to fulfill its duty to protect its archaeological and burial sites throughout the Project's construction, including:
 - i. How Imperial will ensure that Huron-Wendat Nation monitors are involved in monitoring construction work throughout the Project's construction;
 - ii. How Imperial will advise the Huron-Wendat Nation of the construction schedule and any changes to the construction schedule;
 - iii. How Imperial will use the information gathered through the participation of Huron-Wendat Nation monitors; and
 - iv. How Imperial will provide up-to-date information, including information gathered through the participation of Huron-Wendat Nation monitors, to the participating First Nation(s).

63.4 Imperial Response

- a.
 - i. Imperial is open to considering the involvement of Indigenous monitors, including Huron-Wendat Nation monitors in monitoring construction work throughout the Project's construction. After Indigenous communities, including Huron-Wendat Nation, and Imperial come to a reasonable agreement regarding the participation of monitors, Imperial will follow a similar approach to the current engagement facilitating monitor participation in Project field work to confirm involvement.
 - ii. After Indigenous communities, including Huron-Wendat Nation and Imperial come to a reasonable agreement regarding the participation of monitors, Imperial will follow a similar approach to the current engagement facilitating monitor participation in Project field work to advise Indigenous communities, including Huron-Wendat Nation of the construction schedule and any changes to the construction schedule. Imperial is committed to ongoing engagement with Indigenous communities, including HWN regarding the Project throughout consultation and construction. It is Imperial's opinion that communication has been effective. Imperial is open to suggestions on improvements.
 - iii. After Indigenous communities, including Huron-Wendat Nation and Imperial come to a reasonable agreement regarding the participation of monitors, Imperial will follow a similar approach to the current engagement facilitating monitor participation in Project field work to consider the information gathered through the participation of monitors. The current approach focuses on resolution of monitor input, comments and concerns in the field, i.e., if monitors have archaeology requests, the request is discussed and addressed through collaboration between the monitors and archaeology field directors and field work continues with potential changes or a shared understanding of methodology based on that discussion. In cases

where monitors and archaeology field directors are not able to address requests with mutually-acceptable solutions in the field, requests are directed to Imperial and Imperial and the Indigenous community consultation office representatives discuss the request and work to identify appropriate resolution.

- iv. Imperial is committed to ongoing engagement with Indigenous communities, including HWN, regarding the Project throughout consultation and construction. It is Imperial's opinion that communication has been effective. Imperial is open to suggestions on improvements.

Attachment 2 – Summary of recent engagement

- July 3, 2019 – NHW noted that artifacts have been recovered near the Parsons Site during the Stage 2 archaeology field work and that the site may be in the middle of a longhouse. NHW advised that they would need to bring the situation to the Chief's Council to discuss next steps, and requested that archaeological field work near the Parsons Site be put on hold pending further discussion with Imperial. Imperial accommodated this request and stopped work at the locations identified.
- August 7, 2019 – Imperial provided a memo regarding the Parsons Site and the recent pre-disturbance investigations (Attachment 5) and requested that NHW review and comment. NHW responded that they will not be commenting on this memo until an agreement regarding appropriate compensation is in place.
- September 4, 2019 - NHW issued a letter to Minister Rickford stating concerns about Imperial's Waterdown to Finch Project, specifically related to the protection and preservation of the Parsons Site.
- September 9, 2019 – Imperial received a letter from NHW addressed to Rich Kruger, Imperial Chairman, President and CEO, dated August 28, 2019, stating concerns about Imperial's Waterdown to Finch Project, specifically related to the protection and preservation of the Parsons Site; citing Imperial's commitment to Indigenous engagement; and requesting that Imperial engage in more meaningful conversations with NHW, including a discussion of appropriate compensation and a meeting in Wendake.

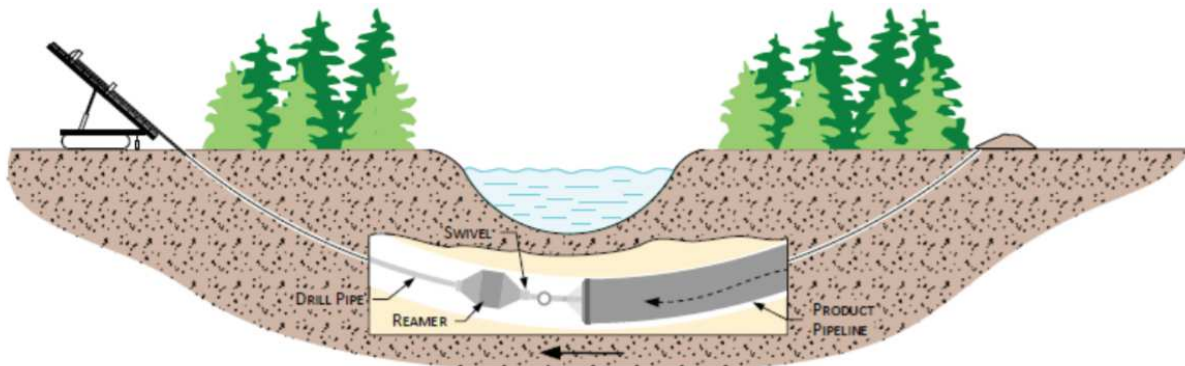
Attachment 3 - Recent concerns/requests and responses

- NHW requested that Imperial work with NHW to determine when MTCS Standards and Guidelines should be exceeded.
 - Imperial committed to meeting MTCS Standards and Guidelines for Project archaeology. With respect to archaeology work that exceeds MTCS Standards and Guidelines, Imperial is committed to ongoing engagement with NHW and to date has provided the responses below indicating how Imperial intends to do so. Imperial has provided the Project Stage 1 archaeology assessment report to NHW for review and intends to continue this practice for Stage 2 and potential Stage 3 and Stage 4 reports.
- NHW requested that Imperial provide NHW with draft copies of all archaeological assessment reports for NHW's review and comment prior to submission to the MTCS
 - Imperial committed to providing NHW with draft copies of all Project archaeology assessment reports for NHW's review prior to or in parallel with Imperial's submission to MTCS.
- NHW requested that if archaeology resources are recovered at any time during construction, Imperial immediately notify NHW and work collaboratively with NHW to minimize impacts and ensure respectful treatment of any archaeological resources in accordance with the practices and values of NHW as identified by NHW.
 - Imperial committed that if archaeology resources are recovered at any time during construction, Imperial will: (i) notify NHW of such finding; (ii) engage a consultant archaeologist as per MTCS Standards and Guidelines; (iii) work collaboratively with NHW to minimize impacts to NHW's archaeology resources and to ensure the respectful treatment of any such resources; and, (iv) where permitted by the *Ontario Heritage Act* (the OHA) and the MTCS Standards and Guidelines, use best efforts to facilitate the return of such archaeological resources to NHW or deposit the same in an appropriate cultural facility.
- NHW requested that if at any time during construction human remains are encountered, the person in charge of the works immediately contact NHW and NHW's archaeologist. NHW requested that the Nation reserve the exclusive right to determine the requirements for treatment of human remains of NHW ancestry found at the site, including the procedures and ceremonies involved in their recovery, handling, protection or possible reburial. NHW advised that it may require protections for Aboriginal burial sites that exceed the requirements of the OHA and the *Funeral, Burial and Cremation Services Act* (the FBCSA).
 - Imperial committed that, if at any time during construction, human remains are encountered, the following steps will be taken consistent with MTCS Standards and Guidelines: (i) the person in charge of the work will immediately contact MTCS, the Bereavement Authority of Ontario of the Ontario Ministry of Government and Consumer Services, the appropriate municipal police, the local coroner, and the consultant archaeologist, if applicable; (ii) all excavation or other activity that could disturb the site will immediately cease, and the area will be secured in a manner that protects the site location and prevents public access and trespass; and (iii) Imperial will follow the requirements of the OHA and the FBCSA, and engage with the relevant Indigenous communities. Imperial will also notify NHW of such finding and Imperial and NHW will work collaboratively to minimize impacts to such findings and to ensure the respectful treatment of any such findings.
- NHW requested that protection of archaeology sites in-situ, regardless of size and regardless of the nature of the resources found within, is always the preferred option for mitigation of development impacts.
 - Imperial agreed that this is the preferred option.
- NHW requested that no archaeology sites of NHW origin will be excavated without the prior consent of NHW and without first coming to an agreement on the terms of any such excavation, including, but not limited to, the collection, storage and ownership of any resources and that, in the event of any impact to an archaeology site of NHW origin, whether planned and with the consent of NHW or by way of accidental discovery during archaeology testing or during construction, come to an agreement on appropriate measures of accommodation.

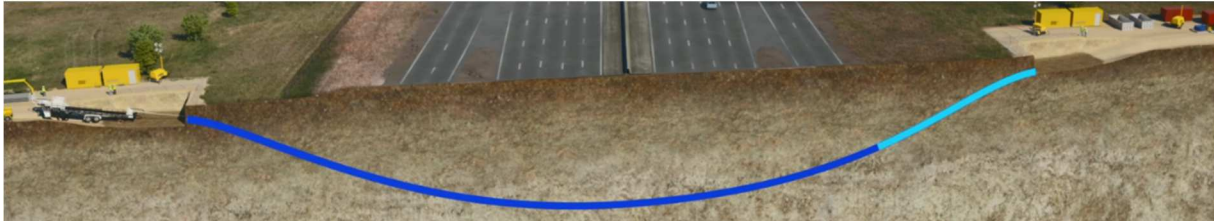
- Imperial committed to follow MTCS Standards and Guidelines for sites with potential Indigenous evidence and engage affected Indigenous communities in the formulation of recommendations at the end of potential Stage 3 archaeology assessment and in the succeeding Stage 4 mitigation.
- NHW requested that Imperial and NHW negotiate an Emergency Response Plan (ERP) outlining how NHW will be notified, consulted and accommodated in the event of a leak or other unforeseen event associated with the Project that has potential impact to NHW Rights and Interests. As part of the ERP, NHW requested that Imperial provide an emergency reserve compensation fund to be operated by NHW. This emergency reserve fund would be used by NHW in the event of an impact to the Parsons Site by reason of a leak or other environmental incident associated with the Project.
 - Imperial responded that it recognizes that emergency response is important to NHW, especially in the area of the Parsons Site. Imperial has an ERP in place for the Sarnia Products Pipeline (SPPL), which Imperial offered to share with NHW for review. Imperial would like to engage with NHW to develop a notification protocol in the event of an emergency on the SPPL to incorporate into the ERP. Additionally, Imperial is developing a Spill Prevention and Response Plan for Project construction, and Imperial will engage Indigenous communities, including NHW, in its development related to potential impacts of a spill on archaeological sites.
- NHW requested that Imperial confirms its commitment to ensure that the Parsons Site specifically is impacted as minimally as possible by the Project, and to use trenchless HDD boring beneath the site to reduce such impacts.
 - A thorough explanation of the Parsons Site avoidance plans is provided in the body of this letter.

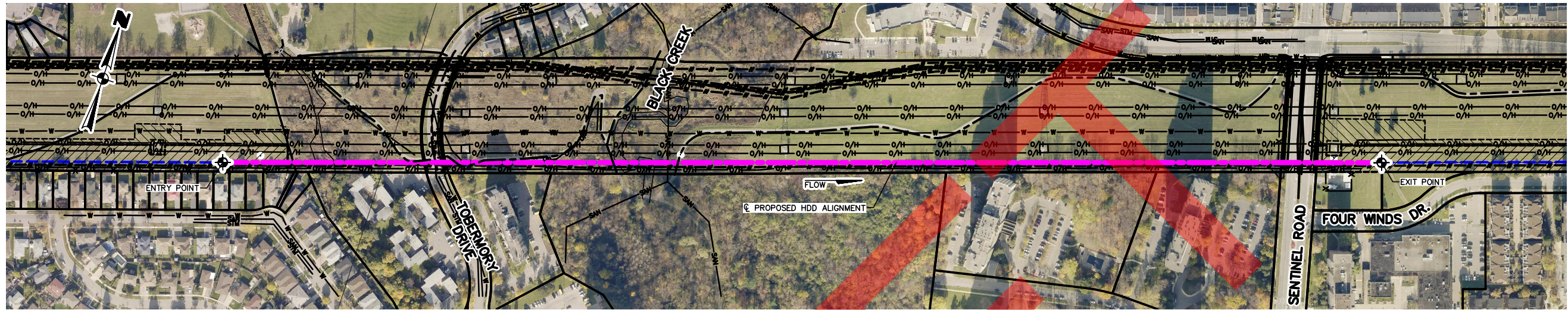
Attachment 4 – HDD installation

- HDD trenchless drilling uses a specific entry and exit point to install a stretch of pipeline underground while eliminating impact to above ground features whereby:
 - A pilot hole is drilled along a pre-determined path
 - The path is expanded to the required size
 - The pipe is then pulled along the drill path and connected
- The HDD trenchless drilling does not require surface access between the entry and exit points for construction, operations or maintenance.

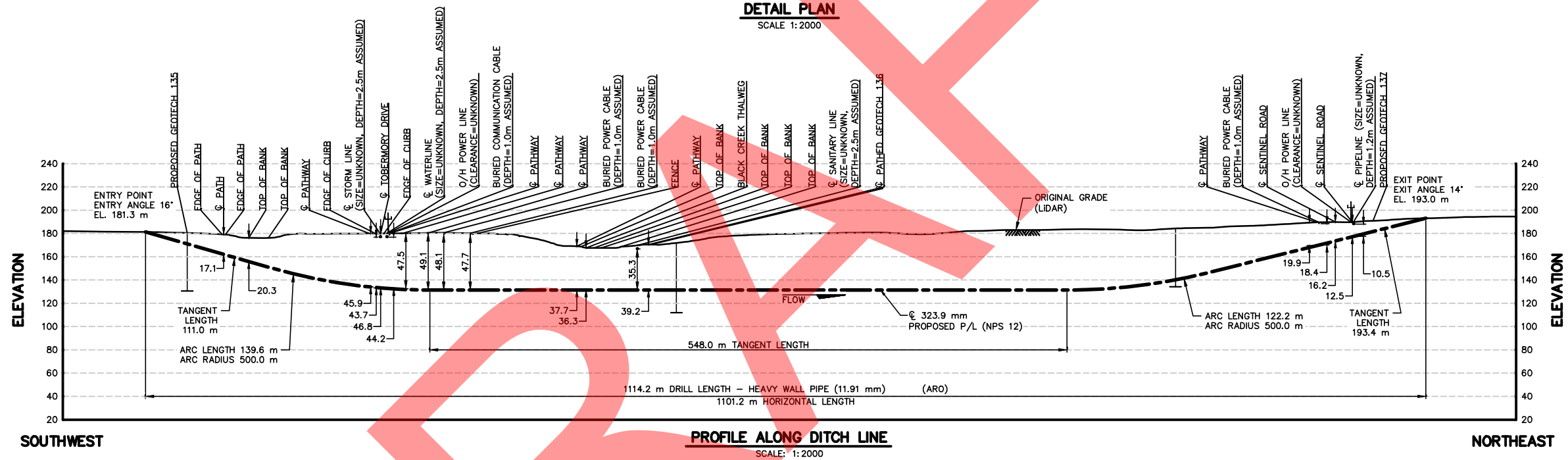


Imperial has developed a [video](#) that explains the HDD process and trenchless installation





DETAIL PLAN
SCALE 1:2000



PROFILE ALONG DITCH LINE
SCALE: 1:2000

- LEGEND**
- PROPOSED HDD ALIGNMENT
 - PROPOSED NPS 12 PIPELINE
 - FOREIGN PIPELINE

NOT FOR CONSTRUCTION

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DRAWN BY AL		WATERDOWN TO FINCH PROJECT BLACK CREEK/ PARSONS SITE HDD CONCEPTUAL DRAWINGS	SHEET SIZE A1
CHECKED BY HMC			SCALE AS SHOWN
APPROVED BY JAW			DATE 09/11/2019
DRAWING NUMBER KP 60.3			
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			A	09/11/19	ISSUED FOR INFORMATION	JMC	HMC	HMC	JAW

Memo

To	James Watson (UPI); Jessie Malone (Imperial); Breanna Murillo (Imperial); Kelly Williams (Imperial)
From	Brenda Kennett (Past Recovery)
Cc	Jenna Down (ERM); Daniel Walker (ERM); Curtis Campbell (ERM); Nicole Bishop (ERM); Emma Bright (ERM)
Date	August 6, 2019
Subject	Parsons Site – Borehole Assessment Update

INTRODUCTION

This memo is prepared to address the recovery of archaeological materials in proximity to the Parsons Site while undertaking initial Stage 2 test pitting at the proposed location of borehole (BH) 136 and to present an alternate strategy to complete the geotechnical investigations required in the vicinity of the Parsons Site, particularly BH136, BH137 and BH135.

BH136

On July 3, 2019, the field crew began the Stage 2 assessment of the BH136 location at the Parsons Site. The plan was to excavate four shovel test pits placed at 5m intervals and centred on the stake marking the location for BH136 followed by a 1m x 1m unit directly over the borehole location. Work began with the excavation of the four test pits (Figure 1).

The Stage 2 assessment was carried out by Archaeological Services Inc. (ASI) on behalf of Past Recovery, the licenced archaeologist. The ASI field notes record the following:

- The two test pits south of the borehole showed a sandy loam topsoil (Layer 1) and beige silt (Layer 2) overlying a thin (5cm) layer of buried natural topsoil (Layer 3) and subsoil (Layer 4). No artifacts were recovered from these test pits. These negative test pits are designated on Figure 1 as single white dots located southwest and south east of BH136 pin (red triangle).
- The test pit northwest of the borehole showed a similar profile, but lacked Layer 3. One piece of pottery was recovered from Layer 1 in this test pit. This test pit is designated as 'WPT2' (Waypoint 2) on Figure 1.
- The test pit northeast of the borehole showed a sandy loam topsoil overlying a possible feature, and yielded 10 pieces of pottery and one flake. The potential feature consists of orange silt mottled with black silt and charcoal, and spanned the entire floor of the test pit at a depth of 30cm. This test pit is designated as 'WPT1' (Waypoint 1) on Figure 1.

WTP1

While 10 pieces identified as pottery were collected in the field, once cleaned and examined in more detail in the lab, five of these were determined to be small pieces of natural sandstone. Thus, the artifact collection from WPT1 consists of five small (< 1cm diameter) body sherds and one small (< 1cm) Onondaga chert flake fragment.

The excavation of WPT1 was stopped at the possible feature to prevent damage. As result, the test pit has not been fully excavated to subsoil. The context of the pottery sherds and lithic flake recovered from WPT1 is less clear owing to the presence of the partial feature and only being partially excavated.

WTP2

The single pottery sherd from WPT2 was found in the upper (modern) topsoil suggesting that it is in an unnatural, or secondary, context. WPT2 encountered subsoil at a depth of 30cm and was excavated 30cm into subsoil, and as such has been completed.

Following the discovery of the artifacts and the possible feature, the findings were discussed with the on-site archaeology monitors, Field Liaison Representative (FLR) and the Huron Wendat Nation (HWN) office. Based on this, it was mutually agreed that work at this location would cease until an additional strategy was developed.

BH136 Location

BH136 is situated on a gentle slope below the main terrace occupied by the Parsons Site village and above the east side of Black Creek. The BH is located approximately 20m west of the site's recorded limit and within 50m of a documented midden and palisade wall (Figure 2).

Figure 2 depicts the limits of two assessments from 1989-90 and 2013. The 1989-90 excavation was completed by ASI and associated with a watermain installation⁴ while the 2013 excavation was completed by URS Corp. and associated with the construction of a multi-use pathway⁵ (Figure 3). The placement of the BH is approximately 20m south and east of this pathway and approximately 10m south of the southern edge of the watermain trench (Figure 3 and Figure 4).

BH136 Recommendation

Past Recovery, Environmental Resource Management (ERM) and Imperial propose moving BH136 approximately 23m west on to the previously assessed pathway. The pathway was assessed by URS Canada archaeologists in 2011 through construction monitoring. The assessment removed all topsoil with a Link-Belt 210 excavator equipped with a smooth ditching bucket. The area was subsequently shovel shined to confirm no cultural features or archaeological resources were present in subsoil (see Figure 5). The report concluded that the pathway is considered clear of any further archaeological concern.

The proposed new location of Borehole 136, approximately 23m west of the current location, would bore through the cement pathway and extend into an area clear of archaeological concern (Figure 6). This would mitigate concern of impacts to the Parsons Site raised at the previous location with the artifacts and potential feature encountered by the ASI crew on July 3rd.

⁴ The c. 18m wide watermain trench across the Parsons Site was fully excavated by ASI in 1989-90 and Ontario Archaeology, Volume 65/66, 1998 provides a full discussion of the (pre-1998) archaeology at the Parsons Site.

⁵ A Stage 2 assessment (shovel test pits at 5m intervals) of the c. 30 kilometres of multi-use pathways was completed by URS in 2010 (URS 2013). In 2011 URS completed a Stage 4 assessment of the pathway across the Parsons Site (above the watermain trench) which included construction monitoring of the c. 3.5m wide pathway excavation (URS 2015).

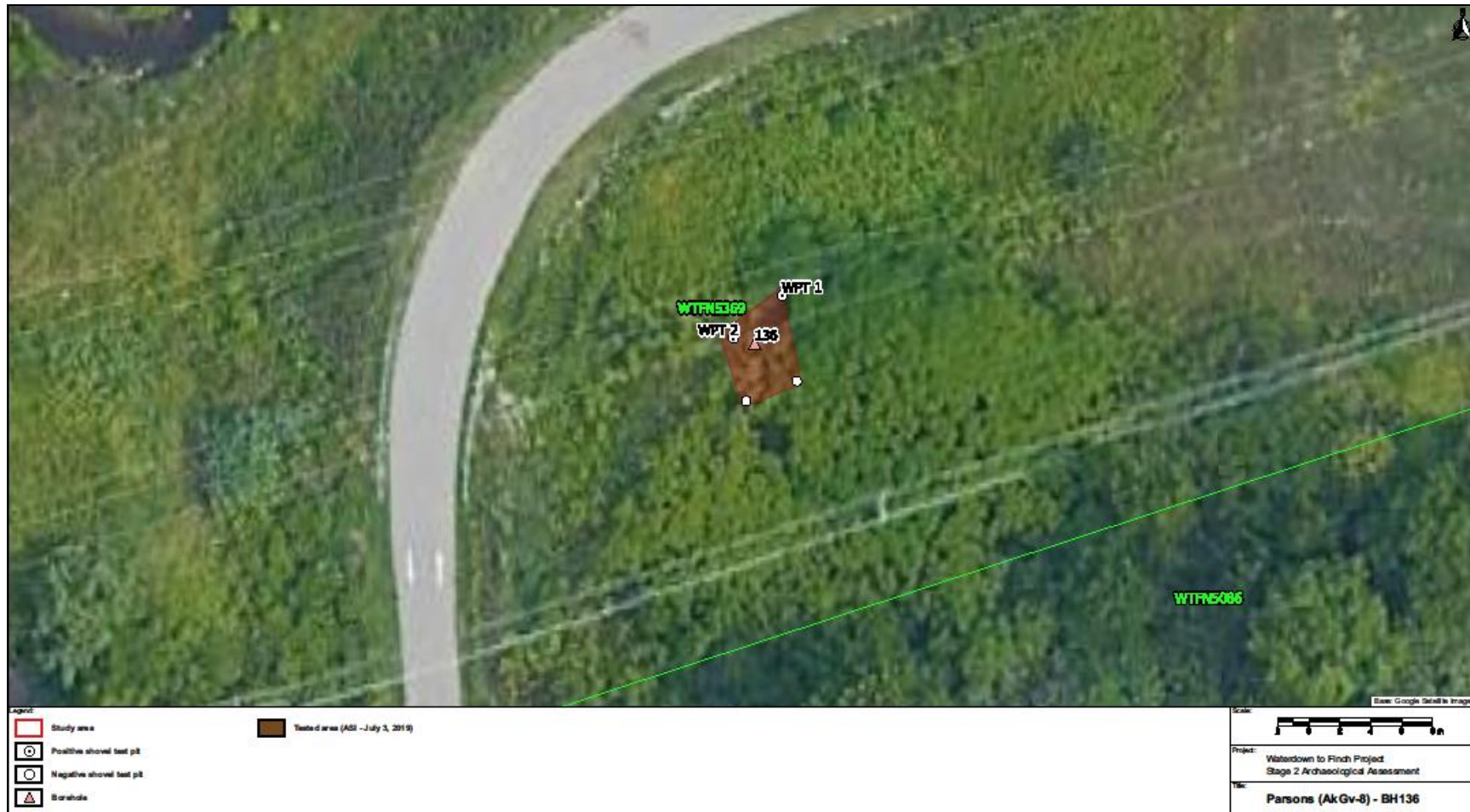


Figure 1: Positive test pits (WPT1 and WPT2) and negative test pits (white dots) excavated at BH136. (Trimble data from ASI fieldwork, July 3, 2019)

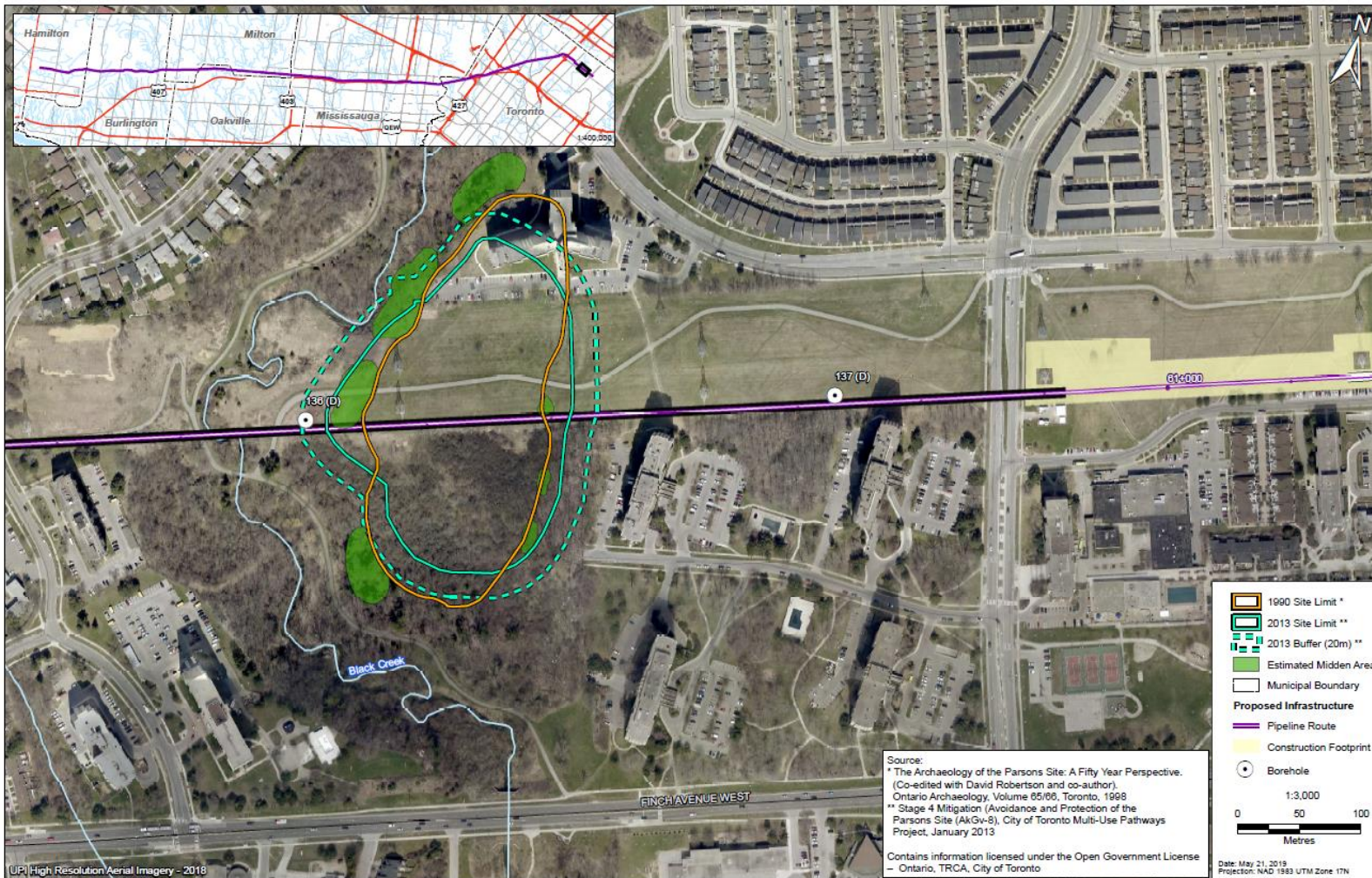


Figure 2: Overlay of all archaeological assessments (1998-2013) and the original locations of boreholes 136 and 137.

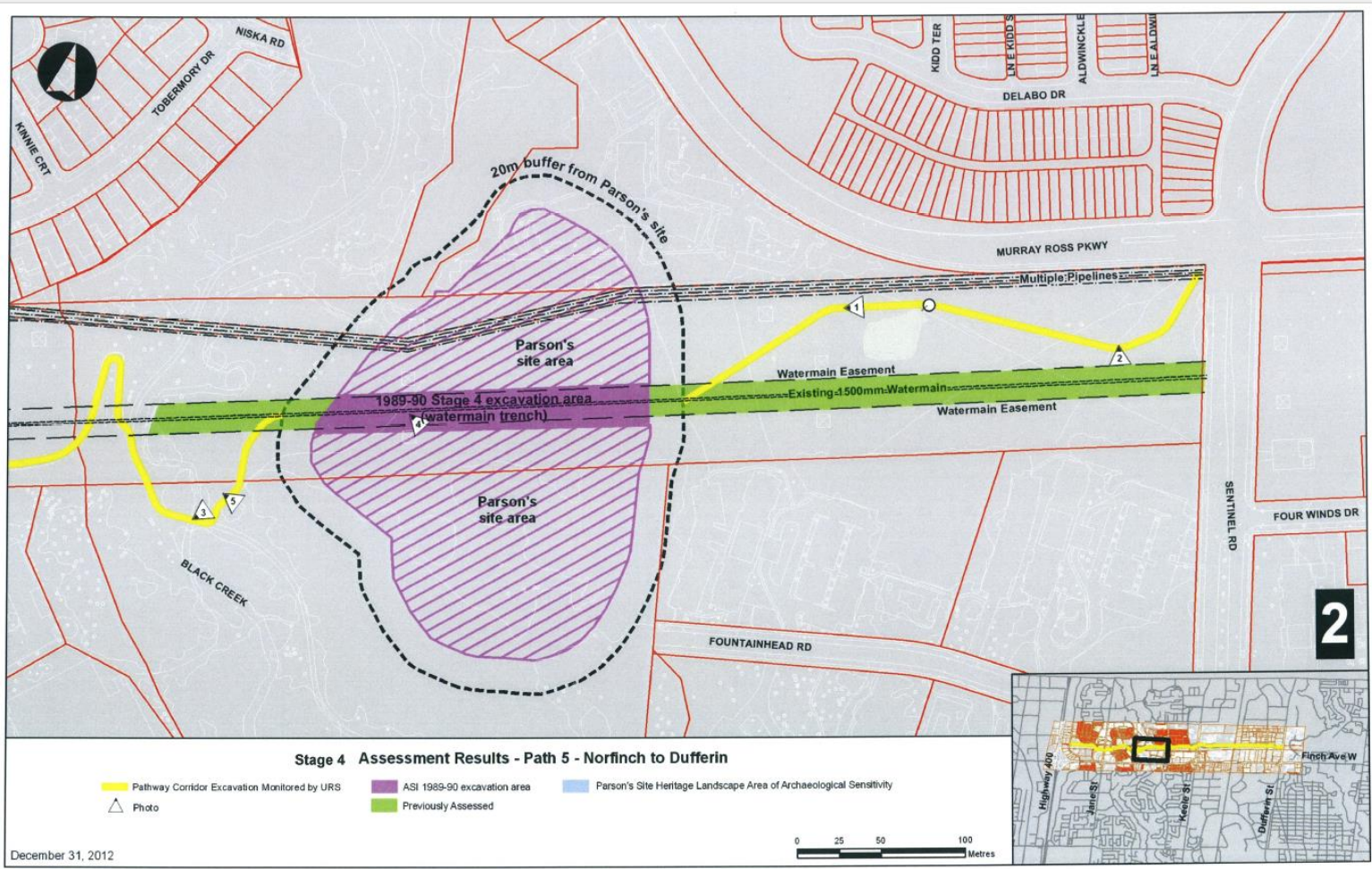


Figure 3: Pathway excavation (yellow) cleared all natural soils and confirmed no features within the pathway. (URS Corporation, *Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8)*, January, 2013).



Figure 4: View of BH136 during Stage 2 testing, looking east. (The apartment building on Fountainhead Road is visible in the background. The watermain trench would be situated along the left hand edge of this photograph as the southern edge of the watermain trench is immediately north of the hydro tower.) (Past Recovery 2019)



Figure 5: Photo depicting Gradall removing all topsoil from pathway location during URS Stage 4 Assessment. Assessment confirmed no features were present through monitoring and shovel shinning subsoil (URS Corporation, *Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8)*, April 2015).

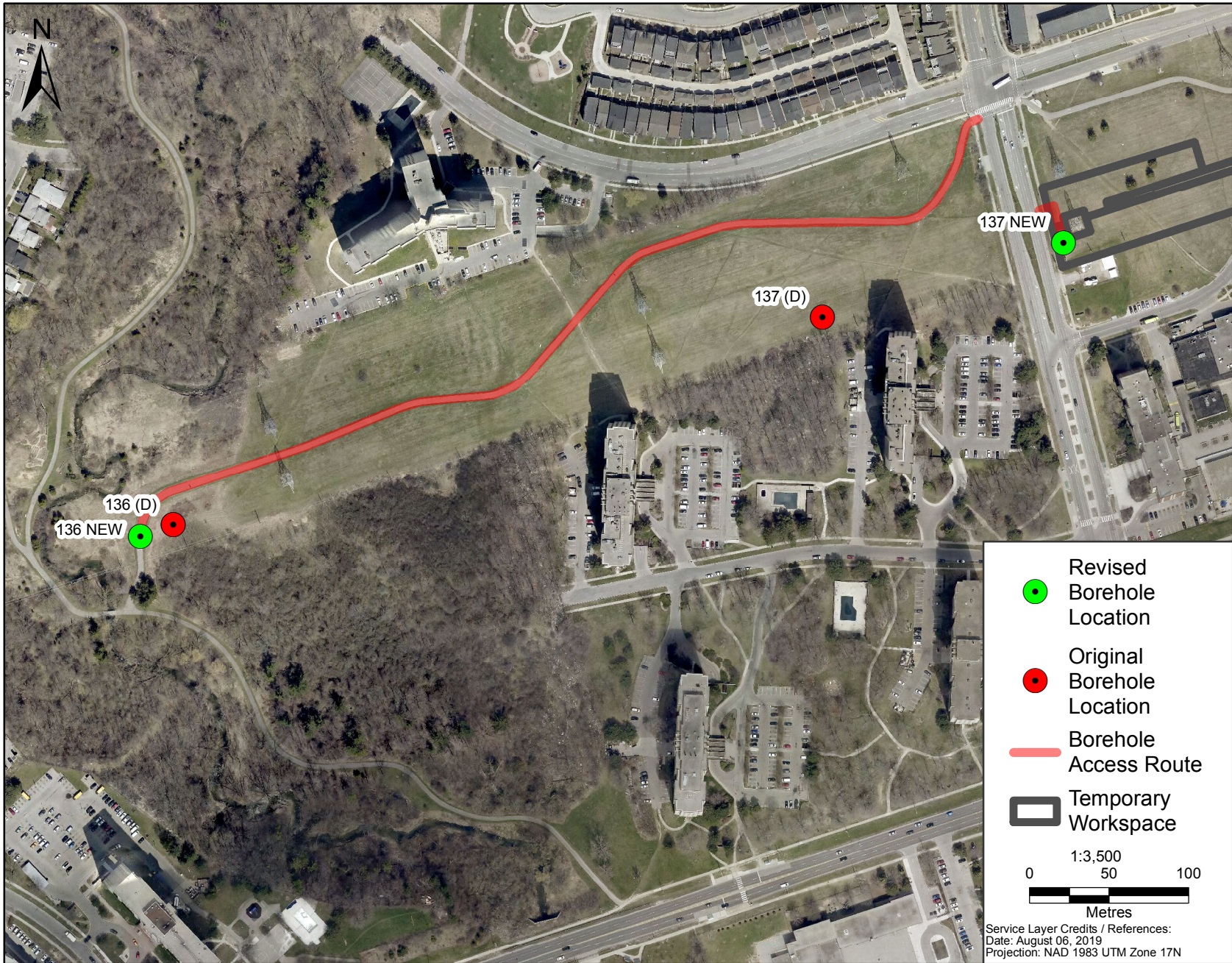


Figure 6 Revised Borehole Locations 136 and 137

BH137

To date, no Stage 2 assessment has been undertaken at this BH location. The original location for BH137 was approximately 200m east of the eastern palisade wall as indicated by the 1989-90 ASI watermain excavation (see Figures 2 and 3) and therefore outside the known limits of Parsons site. The BH was also located approximately 10m south of the southern edge of the watermain trench. Although it is located further to the north, the URS report on the Stage 3 and Stage 4 assessments for the pathway indicated considerable disturbance across this parcel (WTFN5369) to the east of the Parsons Site.

Similar to other BHs located within close proximity to the Parsons Site, the Stage 2 plan was to excavate four shovel test pits and a 1m x 1m unit at BH137. Access for the drill to BH137 was to be via the paved pathway from Sentinel Road and then south across the HONI corridor to the BH location, crossing the c. 18 m wide watermain trench. The off-pathway portion of the access route was to be matted.

With the recent findings at BH136, Past Recovery, ERM and Imperial propose moving BH137 to the east side of Sentinel road, approximately 160m from the current location of BH137, which would be closer to the exit point of the HDD (Figure 6). This proposed location would be accessed from Sentinel Road, and then south across the HONI corridor to the BH location. The off-pathway portion of the access route will be matted.

As mentioned above for the current location of BH137, we would propose to proceed with the 4 shovel test pits and the 1 m x 1m unit at this BH location. If cultural material is identified during this initial assessment, work will stop, and we will seek input from Indigenous Communities. Next steps could include Stage 3/4 excavation or moving the BH location.

BH135

BH135 is located within the HONI corridor approximately 340m west of Black Creek (c. 440 m west of the western palisade wall for the Parsons village). BH135 is also located immediately south of the watermain trench and disturbance is present across much of the parcel (WTFN5363).

A 30m buffer around BH135 was test pitted at 5m intervals July 8, 2019. Test pit soil profiles were deemed disturbed and no cultural material was encountered in any test pits.

An additional 1m x 1m test unit was excavated over BH135 on July 10, 2019 to confirm disturbance, the unit soil profile was consistent with test pit soil profiles. No cultural material or features were found in the test unit.

REFERENCES

2019. Past Recovery, Trimble data from ASI fieldwork, July 29 2019

1998. Ontario Archaeology, Volume 65/66

URS Corporation 2013. Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8). Final Report.

2019. Imperial Oil, Google Earth .KMZ file (provided July 29, 2019)

URS Corporation 2015. Stage 4 Mitigation (Avoidance and Protection) of the Parsons Site (AkGv-8). Final Report.