

**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
ETOBICOKE CREEK TRUNK SEWER IMPROVEMENTS AND UPGRADES
LOTS 11-15, CONCESSIONS 1-4 ECR
FORMER TORONTO TOWNSHIP, COUNTY OF PEEL
CITY OF BRAMPTON, CITY OF MISSISSAUGA
REGIONAL MUNICIPALITY OF PEEL, ONTARIO**

ORIGINAL REPORT

Prepared for:

Jacobs
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Archaeological Licence #P380 (Cooper)
Ministry of Heritage, Sport, Tourism and Culture Industries PIF# P380-0065-2020
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**Stage 1 Archaeological Assessment
Etobicoke Creek Trunk Sewer Improvements and Upgrades
Lots 11-15, Concessions 1-4 ECR
Former Toronto Township, County of Peel
City of Brampton, City of Mississauga
Regional Municipality of Peel, Ontario**

EXECUTIVE SUMMARY

Archaeological Services Inc. was contracted by Jacobs to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the Etobicoke Creek Trunk Sewer Improvements and Upgrades Municipal Class Environmental Assessment, in the Regional Municipality of Peel. This EA involves proposed improvements and upgrades to the Etobicoke Creek Trunk Sewer. The Overall EA Stage 1 Study Area is bounded by Steeles Avenue, Derry Road, Kennedy Road, and approximately 200 metres east of Dixie Road. A short list of four sewer routes were selected as the proposed alternatives. The Stage 1 assessment was limited to the four alternatives buffered by 25 metres.

The Stage 1 background study determined that 16 previously registered archaeological sites are located within one kilometre of the Stage 1 Study Area. The property inspection determined that parts of the Stage 1 Study Area exhibits archaeological potential and will require Stage 2 assessment.

In light of these results, the following recommendations are made:

1. The proposed route options exhibit archaeological potential. These lands require Stage 2 archaeological assessment by test pit/pedestrian survey at five metre intervals, where appropriate, prior to any proposed impacts;
2. The remainder of the Stage 1 Study Area does not retain archaeological potential on account of deep and extensive land disturbance, low and wet conditions, slopes in excess of 20 degrees, or having been previously assessed. These lands do not require further archaeological assessment; and,
3. Should the proposed work extend beyond the current Stage 1 Study Area, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.



PROJECT PERSONNEL

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1.0 PROJECT CONTEXT

Archaeological Services Inc. (ASI) was contracted by Jacobs to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the Etobicoke Creek Trunk Sewer Improvements and Upgrades Municipal Class Environmental Assessment, in the Regional Municipality of Peel (Figure 1). This EA involves proposed improvements and upgrades to the Etobicoke Creek Trunk Sewer. The Overall EA Study Area is bounded by Steeles Avenue, Derry Road, Kennedy Road, and approximately 200 metres east of Dixie Road. A short list of four sewer routes were selected as the proposed alternatives. The Stage 1 assessment was limited to the four alternatives buffered by 25 metres:

- The Etobicoke Creek Alignment starts along Kennedy Road, from north of Highway 407 to south of First Gulf Boulevard with part following the Etobicoke Creek Recreational Trail, extending to Westcreek Boulevard, then Tomken Road to Dixie Road before extending southeast and ending at Derry Road East
- The CAA Alignment starts along Kennedy Road, from north of Highway 407 to south of First Gulf Boulevard with part winding east and north towards the Etobicoke Creek Recreational Trail, to Tomken Road to Dixie Road before extending southeast and ending at Derry Road East
- The Kennedy Road Alignment starts along Kennedy Road, from Derry Road East to south of First Gulf Boulevard with part branching out east and north towards the Etobicoke Creek Recreational Trail
- The Deep Trunk Alignment starts at Kennedy Road south of First Gulf Boulevard and approximately follows the Etobicoke Creek northeast to Dixie Road before extending southeast and ending at Derry Road East

All activities carried out during this assessment were completed in accordance with the *Ontario Heritage Act* (1990, as amended in 2018) and the 2011 *Standards and Guidelines for Consultant Archaeologists* (S & G), administered by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI 2011), formerly the Ministry of Tourism, Culture and Sport.

1.1 Development Context

All work has been undertaken as required by the *Environmental Assessment Act*, RSO (Ministry of the Environment 1990 as amended 2010) and regulations made under the Act, and are therefore subject to all associated legislation. This project is being conducted in accordance with the Municipal Engineers' Association document *Municipal Class Environmental Assessment* (2000 as amended in 2007, 2011 and 2015).

Authorization to carry out the activities necessary for the completion of the Stage 1 archaeological assessment was granted by Jacobs on April 18, 2019.

1.2 Historical Context

The purpose of this section, according to the S & G, Section 7.5.7, Standard 1, is to describe the past and present land use and the settlement history and any other relevant historical information pertaining to the



Stage 1 Study Area. A summary is first presented of the current understanding of the Indigenous land use of the Stage 1 Study Area. This is then followed by a review of the historical Euro-Canadian settlement history.

1.2.1 Indigenous Land Use and Settlement

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

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

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

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



traditional enmity between the Haudenosaunee¹ and the Huron-Wendat (and their Algonquian allies such as the Nipissing and Odawa) led to the dispersal of the Huron-Wendat.

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

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

During the 1690s, some Ojibwa began to replace by force the Haudenosaunee in southern Ontario. By the first decade of the eighteenth century, the Michi Saagiig Nishnaabeg (Mississauga Nishnaabeg) had settled at the mouth of the Humber, near Fort Frontenac at the east end of Lake Ontario and the Niagara region and within decades were well established throughout southern Ontario. In 1736, the French

¹ The Haudenosaunee are also known as the New York Iroquois or Five Nations Iroquois and after 1722 Six Nations Iroquois. They were a confederation of five distinct but related Iroquoian-speaking groups – the Seneca, Onondaga, Cayuga, Oneida, and Mohawk. Each lived in individual territories in what is now known as the Finger Lakes district of Upper New York. In 1722 the Tuscarora joined the confederacy.



estimated there were 60 men at Lake Saint Clair and 150 among small settlements at Quinte, the head of Lake Ontario, the Humber River, and Matchedash (Rogers 1978:761). This history is based almost entirely on oral tradition provided by Anishinaabek elders such as George Copway (Kahgegahbowh), a Mississauga born in 1818 near Rice Lake who followed a traditional lifestyle until his family converted to Christianity (MacLeod 1992:197; Smith 2000). According to Copway, the objectives of campaigns against the Haudenosaunee were to create a safe trade route between the French and the Ojibwa, to regain the land abandoned by the Huron-Wendat. While various editions of Copway's book have these battles occurring in the mid-seventeenth century, common to all is a statement that the battles occurred around 40 years after the dispersal of the Huron-Wendat (Copway 1850:88; Copway 1851:91; Copway 1858:91). Various scholars agree with this timeline ranging from 1687, in conjunction with Denonville's attack on Seneca villages (Johnson 1986:48; Schmalz 1991:21–22) to around the mid- to late-1690s leading up to the Great Peace of 1701 (Schmalz 1977:7; Bowman 1975:20; Smith 1975:215; Tanner 1987:33; Von Gernet 2002:7–8).

Robert Paudash's 1904 account of Mississauga origins also relies on oral history, in this case from his father, who died at the age of 75 in 1893 and was the last hereditary chief of the Mississauga at Rice Lake. His account in turn came from his father Cheneebesh, who died in 1869 at the age of 104 and was the last sachem or Head Chief of all the Mississaugas. He also relates a story of origin on the north shore of Lake Huron (Paudash 1905:7–8) and later, after the dispersal of the Huron-Wendat, carrying out coordinated attacks against the Haudenosaunee. Francis Assikinack, an Ojibwa of Manitoulin Island born in 1824, provides similar details on battles with the Haudenosaunee (Assikinack 1858:308–309). Peace was achieved between the Haudenosaunee and the Anishinaabek Nations in August of 1701 when representatives of more than twenty Anishinaabek Nations assembled in Montreal to participate in peace negotiations (Johnston 2004:10). During these negotiations captives were exchanged and the Iroquois and Anishinaabek agreed to live together in peace. Peace between these nations was confirmed again at council held at Lake Superior when the Iroquois delivered a wampum belt to the Anishinaabek Nations. From the beginning of the eighteenth century to the assertion of British sovereignty in 1763, there is no interruption to Anishinaabek control and use of southern Ontario. While hunting in the territory was shared, and subject to the permission of the various nations for access to their lands, its occupation was by Anishinaabek until the assertion of British sovereignty, the British thereafter negotiating treaties with them. Eventually, with British sovereignty, tribal designations changed (Smith 1975:221–222; Surtees 1985:20–21). According to Rogers (1978), by the twentieth century, the Department of Indian Affairs had divided the "Anishinaubag" into three different tribes, despite the fact that by the early eighteenth century, this large Algonquian-speaking group, who shared the same cultural background, "stretched over a thousand miles from the St. Lawrence River to the Lake of the Woods." With British land purchases and treaties, the bands at Beausoleil Island, Cape Croker, Christian Island, Georgina and Snake Islands, Rama, Sarnia, Saugeen, the Thames, and Walpole, became known as "Chippewa" while the bands at Alderville, New Credit, Mud Lake, Rice Lake, and Scugog, became known as "Mississauga." The northern groups on Lakes Huron and Superior, who signed the Robinson Treaty in 1850, appeared and remained as "Ojibbewas" in historical documents.

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

The Stage 1 Study Area is within Treaty 13a, or the Toronto Purchase, signed on August 2, 1805 by the Mississaugas and the British Crown in Port Credit at the Government Inn. A provisional agreement was reached with the Crown on August 2, 1805, in which the Mississaugas ceded 70,784 acres of land



bounded by the Toronto Purchase of 1787 in the east, the Brant Tract in the west, and a northern boundary that ran six miles back from the shoreline of Lake Ontario. The Mississaugas also reserved the sole right of fishing at the Credit River and were to retain a 1 mile strip of land on each of its banks, which became the Credit Indian Reserve. On September 5, 1806, the signing of Treaty 14 confirmed the Head of the Lake Purchase between the Mississaugas of the Credit and the Crown (Mississaugas of the Credit First Nation 2017; Mississauga of the New Credit First Nation 2001).

1.2.2 Euro-Canadian Land Use: Township Survey and Settlement

Historically, the Stage 1 Study Area is located in the Former Toronto Township, County of Peel in the following Lots and Concessions:

- Concessions 1-2 ECR, Lots 11-14
- Concession 3 ECR, Lots 11-13
- Concession 4 ECR, Lots 11-12

The S & G stipulates that areas of early Euro-Canadian settlement (pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches, and early cemeteries are considered to have archaeological potential. Early historical transportation routes (trails, passes, roads, railways, portage routes), properties listed on a municipal register or designated under the *Ontario Heritage Act* or a federal, provincial, or municipal historic landmark or site are also considered to have archaeological potential.

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those that are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be located in proximity to water. The development of the network of concession roads and railroads through the course of the nineteenth century frequently influenced the siting of farmsteads and businesses. Accordingly, undisturbed lands within 100 m of an early settlement road are also considered to have potential for the presence of Euro-Canadian archaeological sites.

The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed Indigenous pathways and set up trading posts at strategic locations along the well-traveled river routes. All of these occupations occurred at sites that afforded both natural landfalls and convenient access, by means of the various waterways and overland trails, into the hinterlands. Early transportation routes followed existing Indigenous trails, both along the lakeshore and adjacent to various creeks and rivers (ASI 2006a).

Toronto Township

The Township of Toronto was original surveyed in 1806 by Mr. Wilmot, Deputy Surveyor. The first settler in this Township, and also the County of Peel, was Colonel Thomas Ingersoll. The whole population of the Township in 1808 consisted of seven families, scattered along Dundas Street. The number of inhabitants gradually increased until the war broke out in 1812, which gave considerable check to its progress. When the war was over, the Townships growth revived and the rear part of the Township was surveyed and called the “New Survey”. The greater part of the New Survey was granted to a colony of Irish settlers from New York City, who suffered persecution during the war.



The Hamilton and Toronto Railway (H&TR) was formed in 1852, and in 1855, completed its lake shore route. In 1871, the railway was amalgamated with the Great Western Railway, which in turn, was amalgamated in 1882, with the Grand Trunk Railway. The Grand Trunk Railway was amalgamated in 1923, with Canadian National Railway (Andreae 1997:126–127).

Graham Pioneer Cemetery

The cemetery is located within the west half of Lot 14, Concession 2 ECR in the former Toronto Township. The lot was deeded to Hugh Graham in 1846. In 1856, the County map indicates Graham as the property owner, but by 1877 the lot was indicated on the historical atlas as owned by George Rutledge. A history of the cemetery property was provided in a Stage 3 archaeological assessment (Archeoworks Inc. 2007) adjacent to the cemetery. The report notes that local renowned Peel historian William Perkins Bull in 1930 wrote that ten to forty settlers were buried there while the Graham family owned the lot (Perkins Bull 1930). The 2007 cemetery report also notes that a 2003 ground-penetrating radar survey was conducted to locate the burials, which only identified four internments, four probable internments and two areas of “internment activity” (Landmark Discoveries 2003). The

1.2.3 Historical Map Review

The 1859 *Tremaine’s Map of the County of Peel* (Tremaine 1859) and the 1877 *Illustrated Historical Atlas of the County of Peel* (Walker and Miles 1877), Toronto Township pages were examined to determine the presence of historic features within the Stage 1 Study Area during the nineteenth century (Table 1; Figures 2-3).

It should be noted, however, that not all features of interest were mapped systematically in the Ontario series of historical atlases, given that they were financed by subscription, and subscribers were given preference with regard to the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases.

In addition, the use of historical map sources to reconstruct/predict the location of former features within the modern landscape generally proceeds by using common reference points between the various sources. These sources are then geo-referenced in order to provide the most accurate determination of the location of any property on historic mapping sources. The results of such exercises are often imprecise or even contradictory, as there are numerous potential sources of error inherent in such a process, including the vagaries of map production (both past and present), the need to resolve differences of scale and resolution, and distortions introduced by reproduction of the sources. To a large degree, the significance of such margins of error is dependent on the size of the feature one is attempting to plot, the constancy of reference points, the distances between them, and the consistency with which both they and the target feature are depicted on the period mapping.

According to the 1859 map, the Etobicoke Creek runs through part of all alignments, the Deep Trunk alignment following the creek most closely. Kennedy Road, Dixie Road, Derry Road are shown to be historically surveyed roads. As well, a third road runs parallel to and between Kennedy Road and Dixie Road. A structure is shown on George Rutledge’s property adjacent to Kennedy Road in Lot 13, Concession 2 ECR. A cemetery is located adjacent to Dixie Road on Lot 11, Concession 4 ECR, separated from the Deep Trunk Alignment by Etobicoke Creek. By 1877, four orchards and five structures are shown adjacent to Kennedy Road. One orchard is shown adjacent to the Deep Trunk Alignment west of the middle road now approximately the terminus of Westcreek Boulevard. Two



orchards are adjacent to the Etobicoke Creek alignment at Dixie Road. Neither map illustrates the Graham Pioneer Cemetery.

1.2.4 Twentieth-Century Mapping Review

The 1909 and 1942 National Topographic System (NTS) Brampton Sheets (Department of Militia and Defence 1909; Department of National Defence 1942), the 1954 aerial photography (Hunting Survey Corporation Limited 1954), and the 1974 and 1994 NTS Brampton Sheets (Department of Energy, Mines and Resources 1974; 1994) were examined to determine the extent and nature of development and land uses within the Stage 1 Study Area (Figures 4-8).

The 1909 map depicts six bridges along Kennedy Road, two bridges along Dixie Road, and one approximately at the terminus of Westcreek Boulevard. One structure is depicted at Derry Road east of Kennedy Road, and seven structures are adjacent to Kennedy Road. By 1942, Derry Road is shown to be a paved main highway, and the road between Kennedy Road and Dixie Road is a narrow paved secondary road. A house and barn are located adjacent to the Kennedy Road alignment at Derry Road. Seven houses are shown along Kennedy Road, each with a barn. The 1954 aerial photo indicates the Stage 1 Study Area has remained relatively unchanged. A sewage plant is depicted in the 1974 map adjacent to the Deep Trunk alignment and intersecting the CAA and Etobicoke Creek alignments to the west of the middle road. The 1994 map shows the 401 has been constructed through the Stage 1 Study Area, cutting off the middle road before it reaches Steeles Avenue. Tomken Road departs off the middle road to the south of the Deep Trunk, CAA and Etobicoke Creek alignments, and runs through them east of the middle road. A hydro corridor passes through the Kennedy Road, CAA, Deep Trunk and Etobicoke alignments.

1.3 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the Stage 1 Study Area, its environmental characteristics (including drainage, soils or surficial geology and topography, etc.), and current land use and field conditions. Three sources of information were consulted to provide information about previous archaeological research: the site record forms for registered sites available online from the MHSTCI through “Ontario’s Past Portal”; published and unpublished documentary sources; and the files of ASI.

1.3.1 Current Land Use and Field Conditions

A review of available Google satellite imagery since 2003 shows the following impacts to the Stage 1 Study Area:

- Development at the northwest corner of Derry Road East and Kennedy Road intersection in 2004
- Earth moving activities northeast of Secretariat Court and Kennedy Road in 2004
- Construction at 7580 Kennedy Road South in 2003
- Widening of Kennedy Road South between First Gulp Boulevard and Secretariat Court in 2009
- Construction at 7725 Kennedy Road South in 2016
- Earth moving activity associated with the deconstruction of the sewage plant in 2009



- Construction of a walking path from the sewage plant, crossing Tomken Road and Dixie Road and extending past Derry Road in 2006
- Earth moving activities northwest of Dixie Road and Etobicoke Creek in 2004-2005, 2009 and 2018

The Stage 1 Study Area is defined as these four short listed alternatives, buffered by 25 metres:

- The Etobicoke Creek Alignment starts along Kennedy Road, from north of Highway 407 to south of First Gulf Boulevard with part following the Etobicoke Creek Recreational Trail, extending to Westcreek Boulevard, then Tomken Road to Dixie Road before extending southeast and ending at Derry Road East
- The CAA Alignment starts along Kennedy Road, from north of Highway 407 to south of First Gulf Boulevard with part winding east and north towards the Etobicoke Creek Recreational Trail, to Tomken Road to Dixie Road before extending southeast and ending at Derry Road East
- The Kennedy Road Alignment starts along Kennedy Road, from Derry Road East to south of First Gulf Boulevard with part branching out east and north towards the Etobicoke Creek Recreational Trail
- The Deep Trunk Alignment starts at Kennedy Road south of First Gulf Boulevard and approximately follows the Etobicoke Creek northeast to Dixie Road before extending southeast and ending at Derry Road East

The Stage 1 Study Area is generally located in a mixed agricultural and industrial context centered on the Etobicoke Creek and floodplain near the intersection of Highways 410 and 407 at the Mississauga-Brampton border. The west portion of the Stage 1 Study Area is bounded by an area west of Kennedy Road which follows a northwest-southeast alignment and features between four and six lanes of vehicular traffic with a sidewalk on each side of the roadway within the Stage 1 Study Area. Kennedy Road is bound by a golf course on the west side and an athletic complex with sports fields to the north of Highway 407, and agricultural lands, a hydro corridor, and industrial/warehouse facilities south of Highway 407 until south of the intersection with Derry Road East.

The central portion of the Stage 1 Study Area centres on Etobicoke Creek and its associated floodplains, which generally follow a west-east alignment. Etobicoke Creek passes under Kennedy Road, Highway 410, Highway 407, Tomken Road, and Dixie Road (listed from west to east). A recreational trail is located in the floodplain, and is generally adjacent to agricultural, industrial/warehouse, and transportation-related lands within the Stage 1 Study Area. North of Etobicoke Creek, the Stage 1 Study Area generally features industrial/warehouse facilities and some undeveloped lands adjacent to Highways 410 and 407. South of Etobicoke Creek the Stage 1 Study Area generally features agricultural lands with some undeveloped lands associated with the two highways and some industrial/warehouse facilities. The central portion of the Stage 1 Study Area largely centres on the intersection of Highways 410 and 407.

The east portion of the Stage 1 Study Area is bounded by an area east of Dixie Road. Dixie Road follows a northwest-southeast alignment and features between six and nine lanes of undivided vehicular traffic and generally lacks sidewalks. A short section of sidewalks on each side of the roadway is located to the north of Derry Road East. Dixie Road is bound by industrial and commercial facilities to the west and recreation facilities and undeveloped lands to the east between Drew Avenue in the north and Dixie Road East in the south.



1.3.2 Geography

In addition to the known archaeological sites, the state of the natural environment is a helpful indicator of archaeological potential. Accordingly, a description of the physiography and soils are briefly discussed for the Stage 1 Study Area.

The S & G stipulates that primary water sources (lakes, rivers, streams, creeks, etc.), secondary water sources (intermittent streams and creeks, springs, marshes, swamps, etc.), ancient water sources (glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches, etc.), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.) are characteristics that indicate archaeological potential.

Water has been identified as the major determinant of site selection and the presence of potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in Ontario since 5,000 BP (Karrow and Warner 1990:Figure 2.16), proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modeling of site location.

Other geographic characteristics that can indicate archaeological potential include: elevated topography (eskers, drumlins, large knolls, and plateaux), pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground, distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings. Resource areas, including; food or medicinal plants (migratory routes, spawning areas) are also considered characteristics that indicate archaeological potential (S & G, Section 1.3.1).

The Stage 1 Study Area is located within bevelled till plains of the Peel Plain physiographic region of southern Ontario (Chapman and Putnam 1984).

The Peel Plain is a level-to-undulating area of clay soil which covers an area of approximately 77,700 hectares across the central portions of the Regional Municipalities of York, Peel, and Halton. The Peel Plain has a general elevation of between 150 and 230 metres above sea level with a gradual uniform slope towards Lake Ontario. The Peel Plain is sectioned by the Credit, Humber, Don, and Rouge Rivers with deep valleys as well as a number of other streams such as the Bronte, Oakville, and Etobicoke Creeks. These valleys are in places bordered by trains of sandy alluvium. The region is devoid of large undrained depressions, swamps, and bogs, nevertheless the dominant soil possesses imperfect drainage.

The Peel Plain overlies shale and limestone till which in many places is veneered by occasionally varved clay. This clay is heavy in texture and more calcareous than the underlying till and was presumably deposited by meltwater from limestone regions and deposited in a temporary lake impounded by higher ground and the ice lobe of the Lake Ontario basin. The Peel Plain straddles across the contact of the grey and red shales of the Georgian Bay and Queenston Formations, respectively, which consequently gives the clay southwest of the Credit River a more reddish hue and lower lime content than the clay in the eastern part of the plain. Additionally, the region exhibits exceptional isolated tracts of sandy soil specifically in Trafalgar Township, near Unionville, and north of Brampton where in the latter location



there is a partly buried esker. The region does not possess any good aquifers and the high level of evaporation from the clay's now deforested surface is a disabling factor in ground-water recharge. Further, deep groundwater accessed by boring is often found to be saline (Chapman and Putnam 1984:174–175).

Figure 8 depicts surficial geology for the Stage 1 Study Area. The surficial geology mapping demonstrates that the Stage 1 Study Area is underlain by clay to silt-textured till derived from glaciolacustrine deposits; fine- and coarse-textured glaciolacustrine deposits; and modern alluvial deposits; Paleozoic bedrock (Ontario Geological Survey 2010). Soils in the Stage 1 Study Area are: Cashel clay, a grey-brown podzolic with good drainage; Peel clay, a grey-brown podzolic with imperfect drainage; Bottom Land, an alluvial soil with little profile differentiation and variable drainage; and Jeddo clay, a dark grey gleisolic with poor drainage (Figure 9).

The Stage 1 Study Area contains tributaries of Upper Etobicoke Creek. Etobicoke is derived from the Algonkian word “Wah-do-be kaug” meaning “place where the alders grow”. The Etobicoke Creek watershed, including its major tributaries Spring Creek, Little Etobicoke Creek, and West Etobicoke Creek, drains an area of approximately 211 square kilometres within the cities of Brampton, Mississauga, Toronto, and the Town of Caledon. The creeks flow south from its headwaters in Caledon into Lake Ontario through 68% urban, 27% rural and 5% urbanizing land (TRCA 2018).

1.3.3 Previous Archaeological Research

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (OASD) maintained by the MHSTCI. This database contains archaeological sites registered within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 km east to west, and approximately 18.5 km north to south. Each Borden block is referenced by a four-letter designator, and sites within a block are numbered sequentially as they are found. The Stage 1 Study Area under review is located in Borden blocks *AkGw* and *AjGw*.

According to the OASD, 16 previously registered archaeological sites are located within one kilometre of the Stage 1 Study Area, two of which are within 50 metres of the proposed route options, and one of which is within the Deep Trunk alignment (MHSTCI 2019). A summary of the sites is provided below.

Table 1: List of previously registered sites within one kilometre of the Stage 1 Study Area

Borden #	Site Name	Cultural Affiliation	Site Type	Researcher
<i>AjGw-251</i>	<i>George Graham</i>	<i>Euro-Canadian</i>	<i>Homestead, Outbuilding</i>	<i>Stewart 1996</i>
<i>AjGw-360</i>	Marcove	Middle Archaic	Unknown	ASI 2003, 2004
<i>AjGw-394</i>	Fletcher's Creek Site	Pre-Contact Indigenous	Scatter	ASI 2005
<i>AjGw-414</i>	P1	Pre-Contact Indigenous	Findspot	Amick 2006
AkGw-78	Beanfield	Early-Middle Archaic	Camp/campsite	Stewart 1994, 1995
<i>AkGw-79</i>	Sniper	Middle-Late Woodland	Camp/campsite	Stewart 1994
<i>AkGw-80</i>	n/a	Early Woodland	Findspot	Stewart 1994
<i>AkGw-81</i>	Wild Pear	Pre-Contact Indigenous	Findspot	Stewart 1994
<i>AkGw-82</i>	Spitfire	Late Archaic	Findspot	Stewart 1994



Borden #	Site Name	Cultural Affiliation	Site Type	Researcher
AkGw-85	Dixie 1	Euro-Canadian	Homestead Midden	Stewart 1994
AkGw-86	Dixie 2	Euro-Canadian	Homestead	Stewart 1994
AkGw-251	Brampton Sports Park I	Pre-Contact Indigenous	Unknown	ASI 2005
AkGw-255	n/a	Middle Woodland	Findspot	ASI 2004
AkGw-263	n/a	Middle Woodland	Findspot	ASI 2004
AkGw-302	Mount Charles	Euro-Canadian	Blacksmith shop, Residential, Store	ASI 2006
AkGw-477	Moore site	Euro-Canadian	Homestead	Poulton 2013; TMHC 2014; Stantec 2015

Sites in **bold** are within the Stage 1 Study Area

Sites in *italics* are within 50 m of the Stage 1 Study Area

TMHC – Timmins Martelle Heritage Consultants

According to the OASD, the Beanfield site (AkGw-78), located within the Stage 1 Study Area for the Deep Trunk alignment, has been fully mitigated by previous assessments and does not require additional archaeological assessment. The George Graham site (AjGw-251), located within 50 metres of the Kennedy Road Alignment, has been fully mitigated by previous assessments and does not require additional archaeological assessment.

The background research identified 21 previous reports detail fieldwork within 50 m of the Stage 1 Study Area.

- Archeoworks Inc. (2005a) conducted a Stage 1 AA of for the proposed Beckett Sproule feedermain and Hanlan Pumping Station upgrade, with Route A overlapping the Etobicoke Creek, Kennedy Road, CAA, and Deep Trunk Alignments along Kennedy Road South. It was determined a Stage 2 Archaeological Assessment would be required. P029-075
- Archeoworks Inc. (2005b) conducted a Stage 2 AA of for the proposed Beckett Sproule 2100mm feedermain overlapping the Etobicoke Creek, Kennedy Road, CAA, and Deep Trunk Alignments along Kennedy Road South. A test pit survey was conducted, and no archaeological resources were encountered. The unmarked Graham Pioneer Cemetery was noted on the north side of Etobicoke Creek east of Kennedy Road south of First Gulf Boulevard, approximately 50 metres from the current Stage 1 Study Area and adjacent to the feedermain project area. The cemetery limits were undefined at the time of survey, and the report noted that a few gravestones were located outside of the project area. The lands in proximity to the cemetery within the feedermain project area were recommended for cemetery investigation. P029-256-2006
- Archeoworks Inc. (2007) conducted a Stage 3 AA of the Graham Pioneer Cemetery, within parts of the current Stage 1 Study Area. A backhoe was used to remove approximately 1000 square metres of topsoil within the proposed feedermain project area. No cultural features or grave shafts were encountered. The area within the feedermain alignment was recommended to be free of further archaeological concern. P029-330-2006
- Archeoworks Inc. (2014) conducted a Stage 1-2 AA of 7646, 7660, 7686 and 0 Kennedy Road South, overlapping the Kennedy Road Alignment. A test pit survey was conducted at five-metre intervals, which encountered the Euro-Canadian 7686 Kennedy Road Site. Eight additional test



pits were excavated every 2.5 metres around a central positive test pit, and a one by one-metre test pit was placed over the same positive test unit. The unit and a total of 25 test pits were positive. The assemblage consisted of 132 Euro-Canadian artifacts were recovered from an area measuring roughly 50 metres north-south by 55 metres east-west. This assemblage included 53 pieces of coarse earthenware, vitrified earthenware, container glass, a metal food container, window glass, wire nails, and brick fragments. As less than 20 artifacts could be dated to pre-1900, the site was determined not to possess cultural heritage value or interest, and no further archaeological assessment was recommended. P390-027-2013

- ASI (1992) conducted a Stage 1 AA of the Dixie Road widening from Derry Road to Steeles Avenue, overlapping with the CAA and Deep Trunk Alignments. Between Drew Road and Derry Road, the west side of Dixie Road was determined to be disturbed and the east side to be low and wet floodplains. These areas were recommended to be free of further archaeological concern. 92-010
- ASI (1999) conducted a Stage 1-2 AA of the Orion Gate development area, located southeast of Kennedy Road South at First Gulf Boulevard and overlapping the Etobicoke Creek, Kennedy Road, CAA, and Deep Trunk Alignments. Pedestrian survey and test pit survey were conducted at five metre intervals and did not result in identification of archaeological material. The area was recommended to be free of further archaeological concern. 1999-007-027
- ASI (2005) conducted a Stage 2 AA of the Beckett Sproule Feedermain and Hanlan Pumping Station Upgrade located south of First Gulf Boulevard, adjacent the Etobicoke Creek Alignment at the Etobicoke Creek Recreational Trail. A test pit survey was conducted on the gently sloped area of potential, with areas of disturbance judgementally test pitted. No further archaeological assessment was recommended. P057-163
- ASI (2006b) conducted a Stage 2 AA of the Dixie Road and Derry Road intersection improvements, the east limit overlapping with the Deep Trunk Alignment. The east limit north of Derry Road ROW was visually assessed and determined to be disturbed. No further archaeological assessment was recommended. P057-250-2006
- ASI (2006c) conducted a Stage 2 AA of the Etobicoke Trunk Sewer section S.13B, overlapping the Etobicoke Creek and CAA Alignments from south of the 407 to Derry Road East. The field review determined that construction commenced prior to the Stage 2 archaeological assessment and thus there were no areas remaining to test pit. The area was recommended to be free of further archaeological concern. P057-235-2006
- ASI (2007) conducted a Stage 1 AA of the Kennedy Road improvements from Derry Road to the City of Mississauga and City of Brampton border, overlapping the Kennedy Road Alignment. The field review determined the area did not hold archaeological potential due to disturbance, and no further archaeological assessment was recommended. P057-357-2007
- ASI (2008) conducted a Stage 2 AA of the Sanitary Sewer Diversion, overlapping the Deep Trunk, CAA and Etobicoke Creek Alignments northeast of Tomken Road, and the Kennedy Road Alignment at Kennedy Road. The area west of Kennedy Road was determined to be disturbed while the east side was subject to pedestrian survey at one- to two- metre intervals. Northeast of Tomken Road, systematic excavation of test pits was conducted at five-metre intervals where



undisturbed, and ten-metre intervals where met with disturbance. These areas were recommended to be free of further archaeological concern. P057-185

- ASI (2009) conducted a Stage 1 AA of the Drew Road Extension from Dixie Road to Tomken Road, overlapping the CAA, Etobicoke Creek and Deep Trunk Alignments. The field review determined the area did not hold archaeological potential due to disturbance, and no further archaeological assessment was recommended. P057-522-2009
- ASI (2011) conducted a Stage 1-2 AA of 10027 Dixie Road, overlapping the CAA Alignment. A test pit survey was conducted at five metre intervals, and no archaeological resources were found. The area was recommended to be free of further archaeological concern. P347-033-2011
- Dillon Consulting Ltd. (1996) conducted a Stage 3 assessment and Stage 4 mitigation of the Beanfield Site (AkGw-78) for the Canadian Highways International Constructors Archaeological Assessment of Highway 407 ROW. The site was considered fully mitigated and does not exhibit CHVI. PIF-94-2262-08-13-LIC-1995-067-STG3; PIF-94-2262-08-10-LIC-1994-119-S4EX. The report was not available to review in detail at the time of writing.
- Dillon Consulting Ltd. (1997) conducted a Stage 3 assessment and Stage 4 mitigation of the George Graham Site (AjGw-251) for the Canadian Highways International Constructors Archaeological Assessment of Highway 407 ROW. The site was considered fully mitigated and does not exhibit CHVI. PIF-94-2262-12-06-LIC-1996-032. The report was not available to review in detail at the time of writing.
- Stantec (2015a) conducted a Stage 1 AA of segment A, including an area of west of Kennedy Road south of Highway 407, adjacent to the Kennedy Road Alignment. The property inspection determined the area did not retain archaeological potential, and no further archaeological assessment is recommended. P256-0346-2015
- Stantec (2015b) conducted a Stage 2 AA of TWS-A31, located north of Kennedy Road South and east of Highway 407, adjacent to the Kennedy Road Alignment. A pedestrian survey was conducted at five-metre intervals. No archaeological resources were encountered, and the area was recommended to be free of further archaeological concern. P256-0368-2015
- Timmins Martelle Heritage Consultants Inc. (2016a) conducted a Stage 1-2 AA of 220 Westcreek Boulevard, overlapping parts of the Etobicoke Creek and Deep Trunk Alignments west of Westcreek Boulevard. Test pit survey was conducted at five-metre intervals and increased to ten-metre intervals when met with disturbance. No archaeological resources were discovered, and no further archaeological assessment was recommended. P1075-0021-2016
- Timmins Martelle Heritage Consultants Inc. (2016b) conducted a Stage 1-2 AA of 7715 Kennedy Road South, overlapping the Kennedy Road, Deep Trunk, CAA and Etobicoke Creek Alignments. A test pit survey was conducted at five-metre intervals. No archaeological resources were recovered, and no further archaeological assessment was recommended. P083-112-2011
- TRCA (2013) conducted a Stage 1-2 AA of six areas in the Humber River and Etobicoke Creek Watersheds. Area E is located in naturalized parkland on City of Brampton property on Lot 14, Concession II north Division east of Hurontario Street, and overlaps with the Etobicoke Creek,



Kennedy Road, CAA, and Deep Trunk Alignments. A test pit survey was conducted at five-metre intervals, which did not encounter archaeological resources. No further archaeological assessment was recommended. P303-134-2012

- WSP (2018) conducted a Stage 1 AA of 7575 Kennedy Road, overlapping the Etobicoke Creek, Kennedy Road, CAA, and Deep Trunk Alignments along Kennedy Road South and southeast of First Gulf Boulevard. Background research determined that parts of the Stage 1 Study Area retained archaeological potential and requires Stage 2 archaeological assessment. P476-0005-2018

2.0 FIELD METHODS: PROPERTY INSPECTION

A Stage 1 property inspection must adhere to the S & G, Section 1.2, Standards 1-6, which are discussed below. The entire property and its periphery must be inspected. The inspection may be either systematic or random. Coverage must be sufficient to identify the presence or absence of any features of archaeological potential. The inspection must be conducted when weather conditions permit good visibility of land features. Natural landforms and watercourses are to be confirmed if previously identified. Additional features such as elevated topography, relic water channels, glacial shorelines, well-drained soils within heavy soils and slightly elevated areas within low and wet areas should be identified and documented, if present. Features affecting assessment strategies should be identified and documented such as woodlots, bogs or other permanently wet areas, areas of steeper grade than indicated on topographic mapping, areas of overgrown vegetation, areas of heavy soil, and recent land disturbance such as grading, fill deposits and vegetation clearing. The inspection should also identify and document structures and built features that will affect assessment strategies, such as heritage structures or landscapes, cairns, monuments or plaques, and cemeteries.

The Stage 1 archaeological assessment property inspection was conducted under the field direction of Martin Cooper (P380) of ASI, on June 15, 2020, in order to gain first-hand knowledge of the geography, topography, and current conditions and to evaluate and map archaeological potential of the Stage 1 Study Area. It was a visual inspection only and did not include excavation or collection of archaeological resources. Fieldwork was only conducted when weather conditions were deemed suitable and seasonally appropriate, per S & G Section 1.2., Standard 2. Previously identified features of archaeological potential were examined; additional features of archaeological potential not visible on mapping were identified and documented as well as any features that will affect assessment strategies. Field observations are compiled onto the existing conditions of the Stage 1 Study Area in Section 7.0 (Figures 12-18) and associated photographic plates are presented in Section 8.0 (Plates 1-15).

3.0 ANALYSIS AND CONCLUSIONS

The historical and archaeological contexts have been analyzed to help determine the archaeological potential of the Stage 1 Study Area. These data are presented below in Section 3.1. Results of the analysis of the Stage 1 Study Area property inspection are presented in Section 3.2.



3.1 Analysis of Archaeological Potential

The S & G, Section 1.3.1, lists criteria that are indicative of archaeological potential. The Stage 1 Study Area meets the following criteria indicative of archaeological potential:

- Previously identified archaeological sites (see Table 2);
- Water sources: primary, secondary, or past water source (Upper Etobicoke Creek);
- Early historic transportation routes (Derry Rd., Kennedy Rd., Tomken Rd., Dixie Rd.);
- Proximity to early settlements (Palestine/Mt. Charles, farmsteads); and
- Well-drained soils (Cashel clay)

According to the S & G, Section 1.4 Standard 1e, no areas within a property containing locations listed or designated by a municipality can be recommended for exemption from further assessment unless the area can be documented as disturbed. The Municipal Heritage Registers were consulted, there are no Listed or Designated properties within the proposed alignments.

These criteria are indicative of potential for the identification of Indigenous and Euro-Canadian archaeological resources, depending on soil conditions and the degree to which soils have been subject to deep disturbance.

3.2 Analysis of Property Inspection Results

The property inspection determined that parts of the four proposed route options exhibit archaeological potential. These areas will require Stage 2 archaeological assessment prior to any development. According to the S & G Section 2.1.1, pedestrian survey is required in actively or recently cultivated fields (Plate 13; Figures 14-16: areas highlighted in orange). According to the S & G Section 2.1.2, test pit survey is required on terrain where ploughing is not viable, such as wooded areas, properties where existing landscaping or infrastructure would be damaged, overgrown farmland with heavy brush or rocky pasture, and narrow linear corridors up to 10 metres wide (Plates 2, 10; Figures 12-18: areas highlighted in green).

- The Etobicoke Creek Alignment requires Stage 2 adjacent to Etobicoke Creek between Kennedy Road and Highway 410; between Westcreek Boulevard and Tomken Road; south of Highway 407 ETR; and within the hydro corridor
- The CAA Alignment requires Stage 2 on the west side of Kennedy Road at Brampton Golf Course; adjacent to Etobicoke Creek between Kennedy Road and Highway 410; between Westcreek Boulevard and Tomken Road; south of Highway 407 ETR; and within the hydro corridor
- The Kennedy Road Alignment requires Stage 2 within the hydro corridor; on the west side of Kennedy Road at Brampton Golf Course; and adjacent to Etobicoke Creek between Kennedy Road and Highway 410
- The Deep Trunk Alignment requires Stage 2 adjacent to Etobicoke Creek between Kennedy Road and Highway 410 and within the hydro corridor



Part of the Stage 1 Study Area has been previously assessed and does not require further archaeological assessment (Figures 12-18: areas highlighted in red).

The property inspection determined that some of lands within the Stage 1 Study Area are sloped in excess of 20 degrees, and according to the S & G Section 2.1 do not retain potential (Figures 13-14: areas highlighted in pink). A part of the Stage 1 Study Area is located in low and wet conditions, and according to the S & G Section 2.1 does not retain potential (Plate 13; Figures 13-18: areas highlighted in blue). The remainder of the Stage 1 Study Area has been subjected to deep soil disturbance events and according to the S & G Section 1.3.2 do not retain archaeological potential (Plates 1-9, 11-15; Figures 12-18: areas highlighted in yellow). These areas do not require further survey.

3.3 Conclusions

The Stage 1 background study determined that 16 previously registered archaeological sites are located within one kilometre of the Stage 1 Study Area. The property inspection determined that parts of the prop exhibit archaeological potential and will require Stage 2 assessment.

4.0 RECOMMENDATIONS

In light of these results, the following recommendations are made:

1. The four proposed options exhibit archaeological potential. These lands require Stage 2 archaeological assessment by test pit/pedestrian survey at five metre intervals, where appropriate, prior to any proposed impacts;
2. The remainder of the Stage 1 Study Area does not retain archaeological potential on account of deep and extensive land disturbance, low and wet conditions, slopes in excess of 20 degrees, or having been previously assessed. These lands do not require further archaeological assessment; and,
3. Should the proposed work extend beyond the current Stage 1 Study Area, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.

NOTWITHSTANDING the results and recommendations presented in this study, ASI notes that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archaeological deposit. In the event that archaeological remains are found during subsequent construction activities, the consultant archaeologist, approval authority, and the Cultural Programs Unit of the MHSTCI should be immediately notified.



5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

ASI also advises compliance with the following legislation:

- This report is submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, RSO 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological field work and report recommendations ensure the conservation, preservation and protection 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* 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 archaeological field work 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 Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- 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*. 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 sec. 48 (1) of the *Ontario Heritage Act*.
- 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) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.



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2016b *Stage 1 & 2 Archaeological Assessment 7715 Kennedy Road South, City of Brampton Part of Lot 14, Concession 2 (East of Hurontario Street) Former Geographic Township of Toronto Former Peel County, Now R.M. of Peel, Ontario (Official Plan Amendment OP2006-092 and Zoning By-Law 204-2013).*

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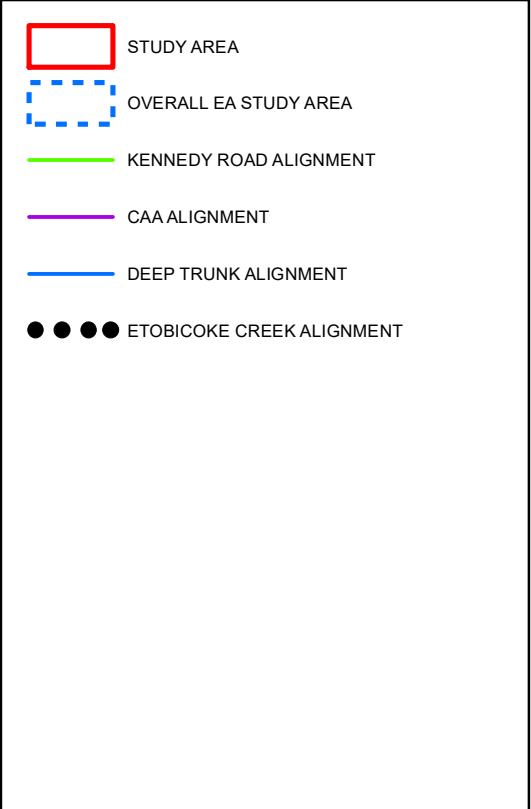
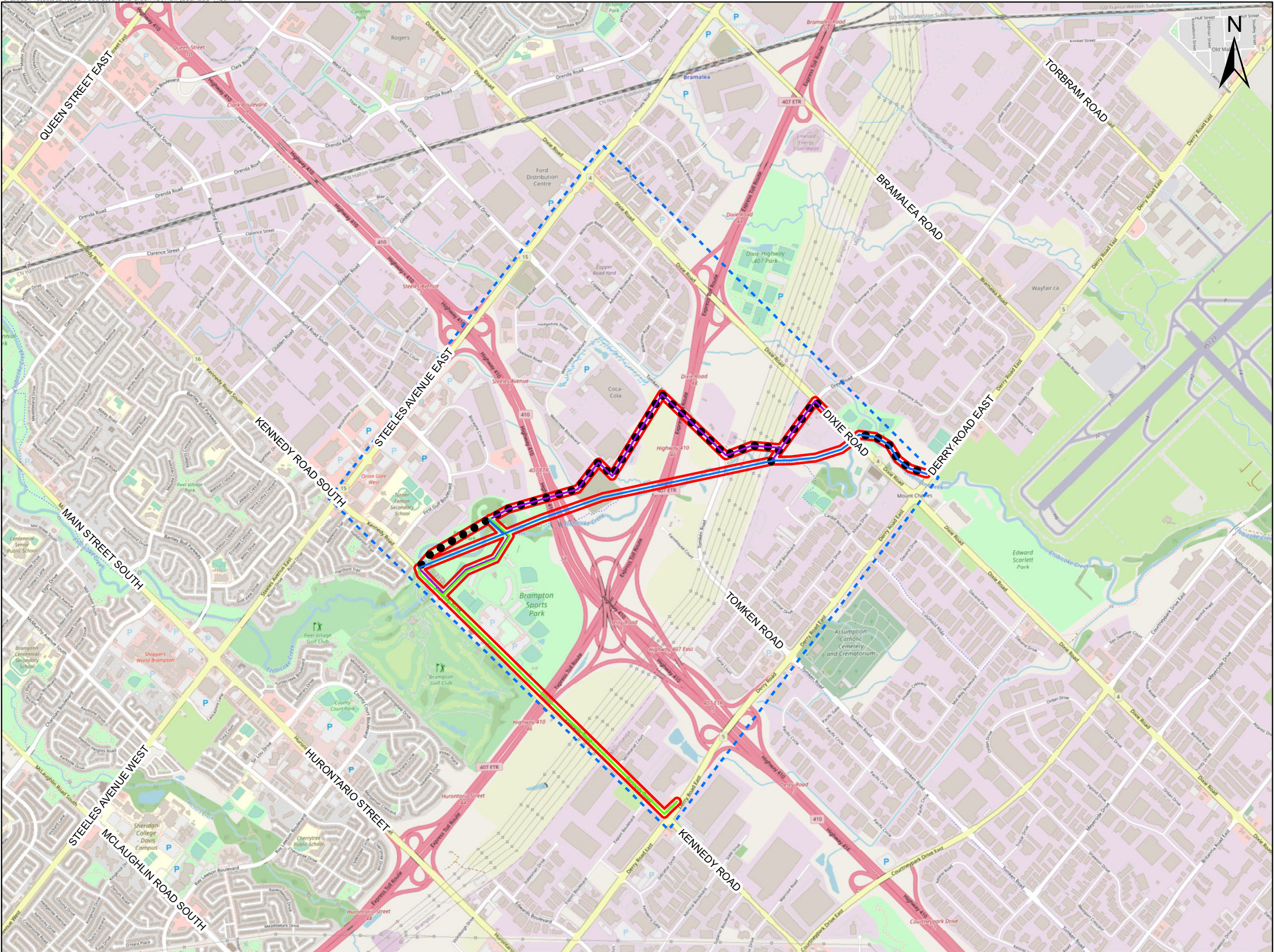
WSP

2018 *Stage 1 Archaeological Assessment 7575 Kennedy Road City of Brampton Lots 13 & 14, Concession 2 East of Centre Road (Huronario Street), Geographic Township of Toronto, City of Brampton, Regional Municipality of Peel.*



7.0 MAPS





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Projection: NAD 1983 UTM Zone 17N

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DATE: 2020-08-28

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FILE: 18EA161_Fig1

 Providing Archaeological & Cultural Heritage Services
528 Bathurst Street Toronto, ONTARIO M5S 2P9
T 416-966-1069 F 416-966-9723 asiheritage.ca

Figure 1: Etobicoke Creek Trunk Sewer Improvements & Upgrades Study Area

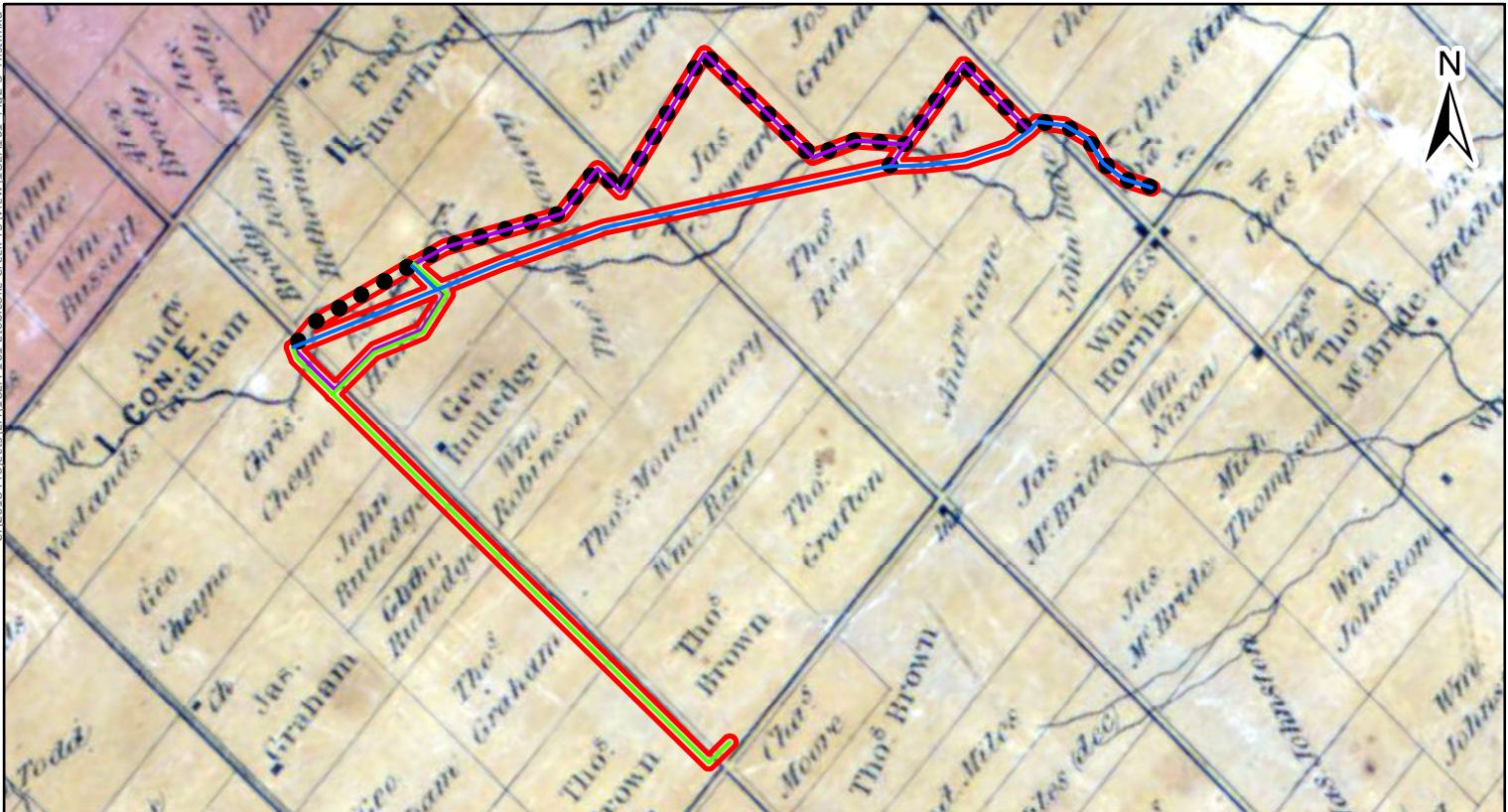


Figure 2: Study Area (Approximate Location) Overlaid on the 1859 Map of the County of Peel, Plan of Brampton

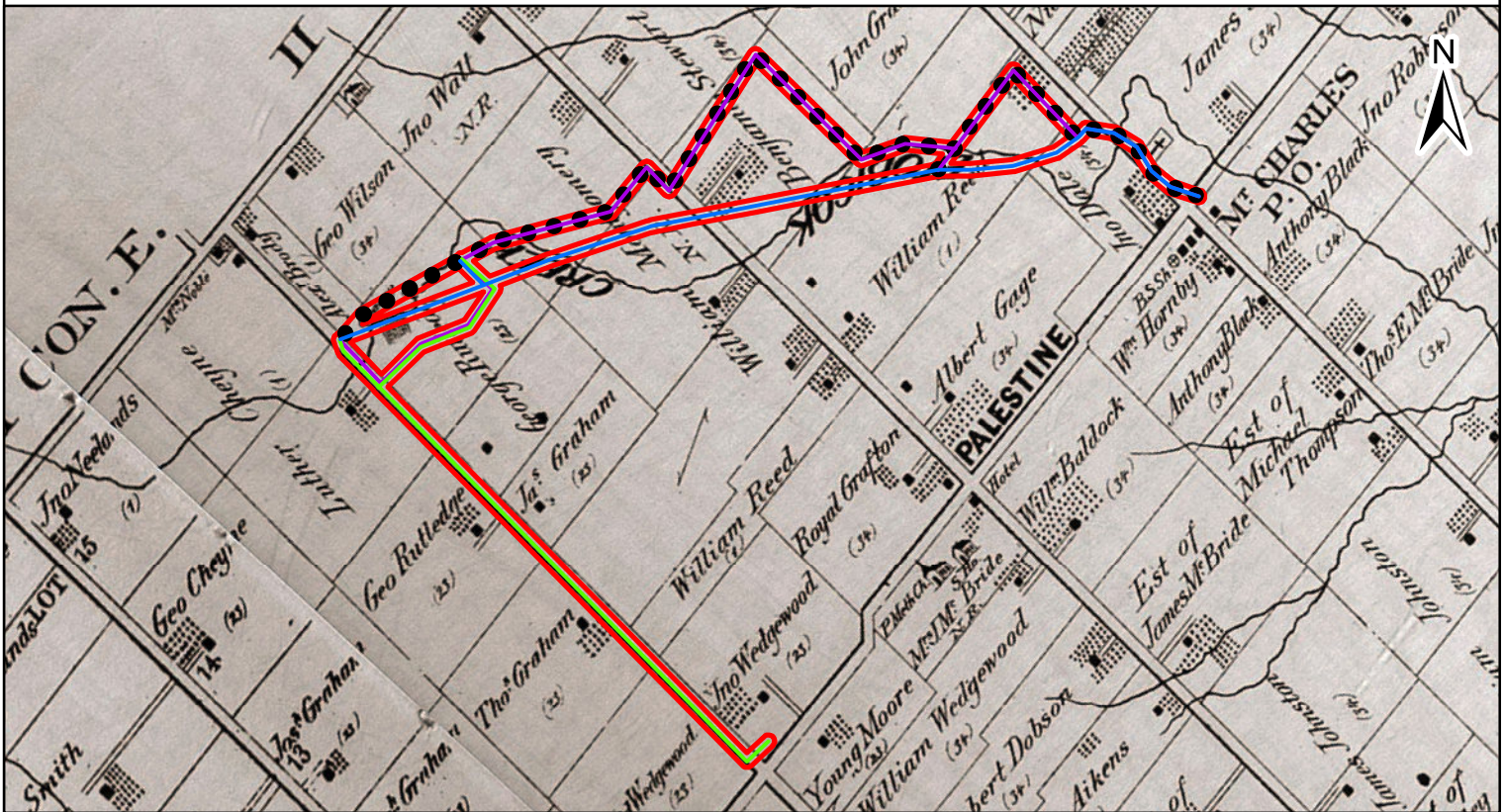


Figure 3: Study Area (Approximate Location) Overlaid on the 1877 Illustrated Historical Atlas of the County of Peel, Plan of Brampton



Figure 4: Study Area (Approximate Location) Overlaid on the 1909 NTS Brampton Sheet

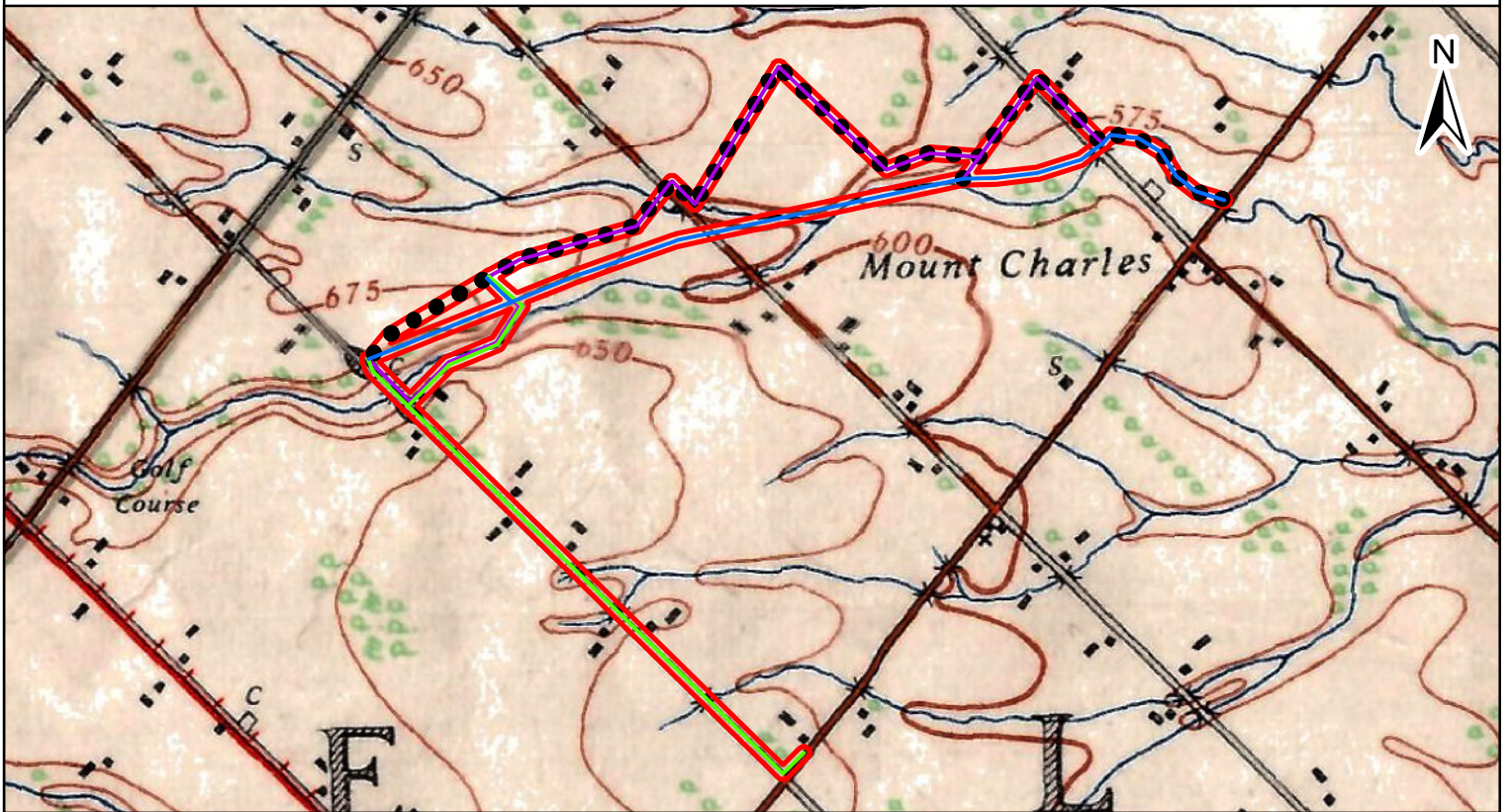
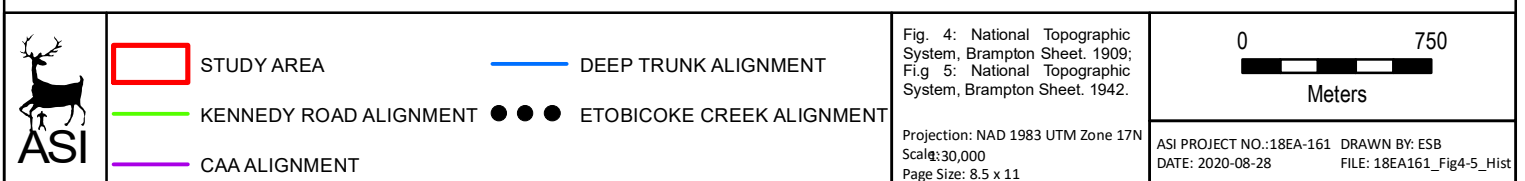


Figure 5: Study Area (Approximate Location) Overlaid on the 1942 NTS Brampton Sheet



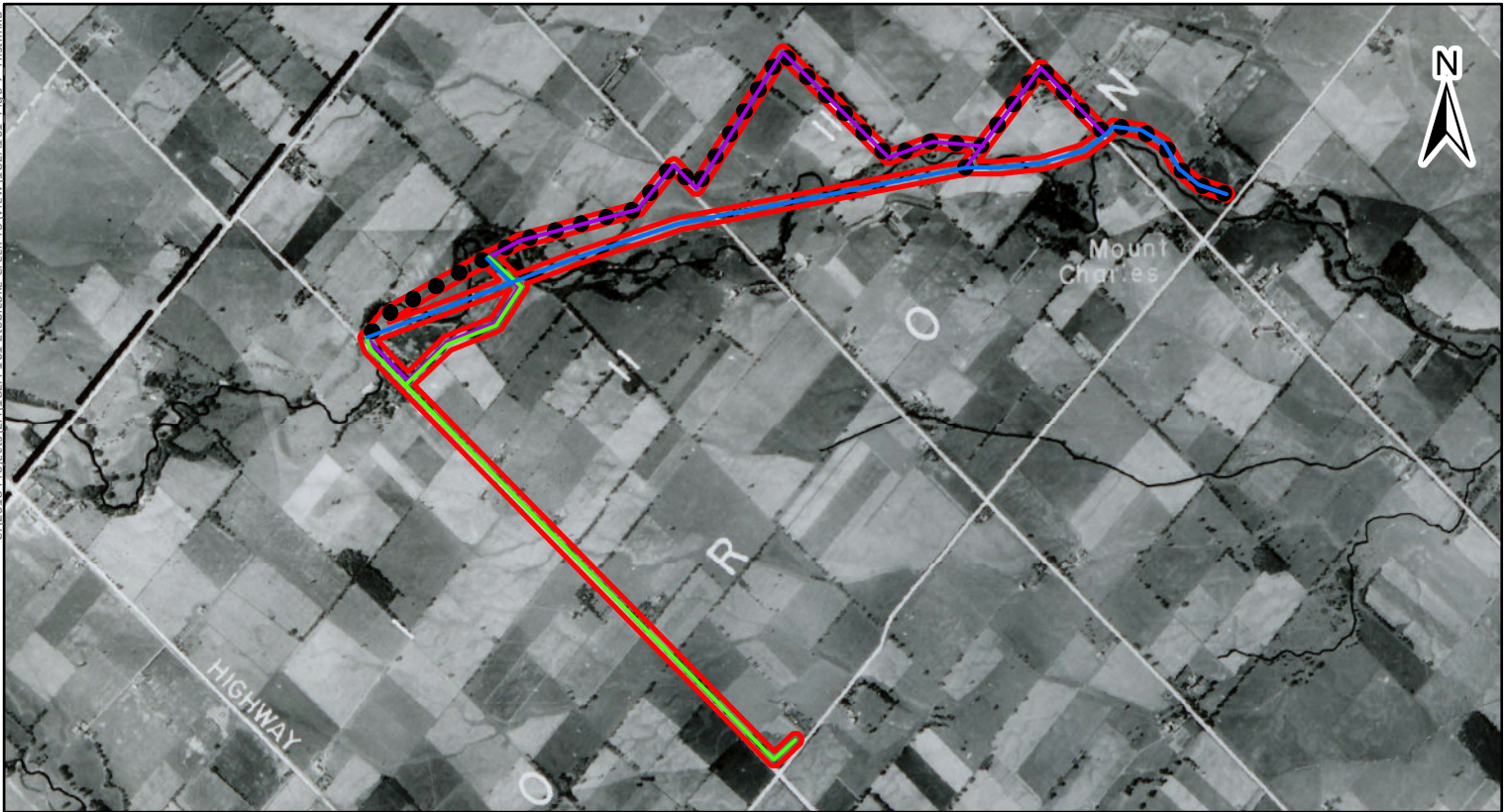


Figure 6: Study Area (Approximate Location) Overlaid on the 1954 Aerial Photography

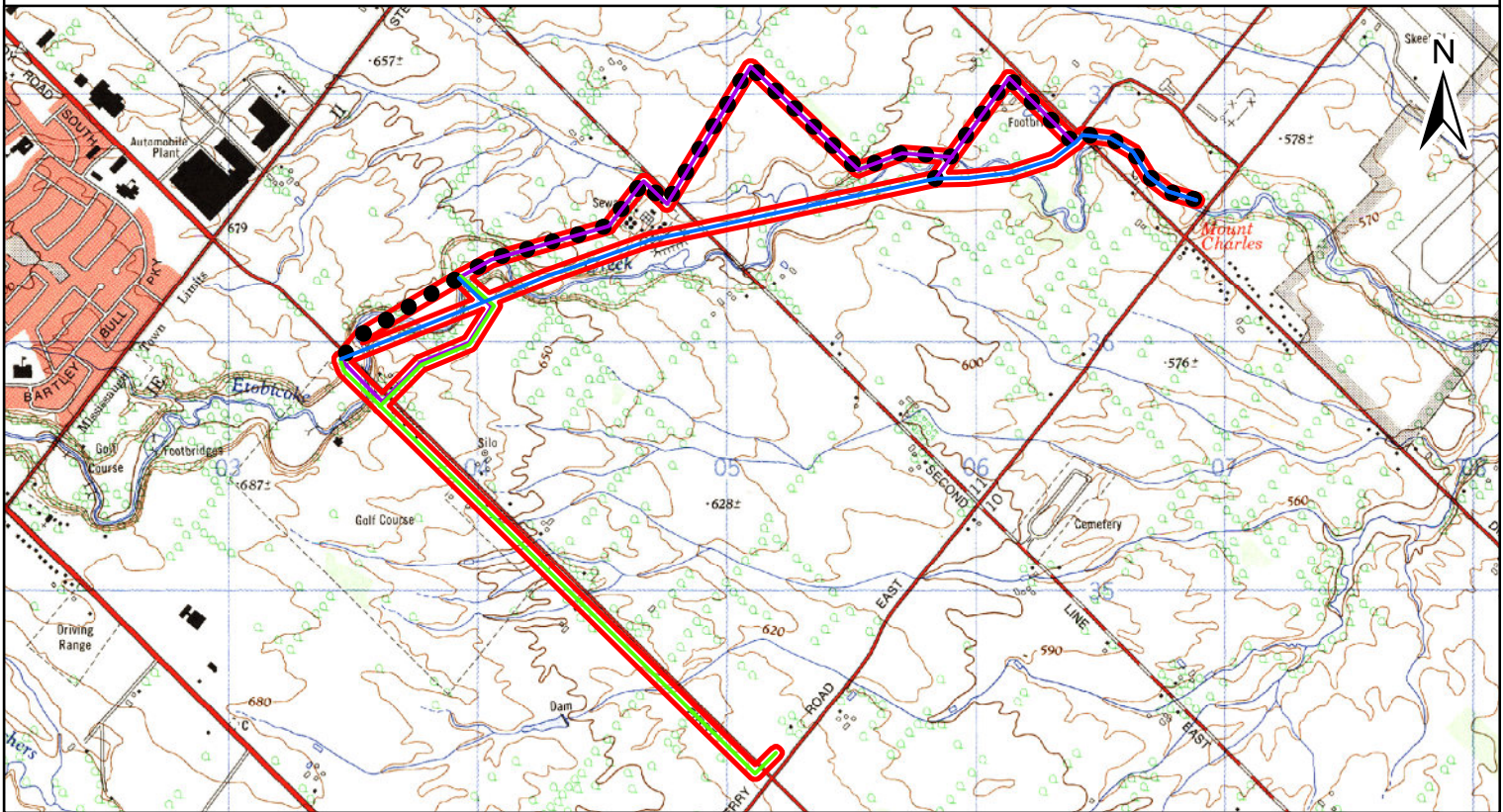
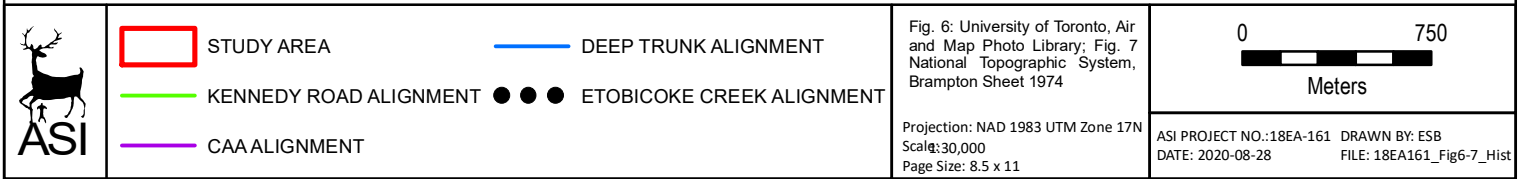


Figure 7: Study Area (Approximate Location) Overlaid on the 1974 NTS Brampton Sheet



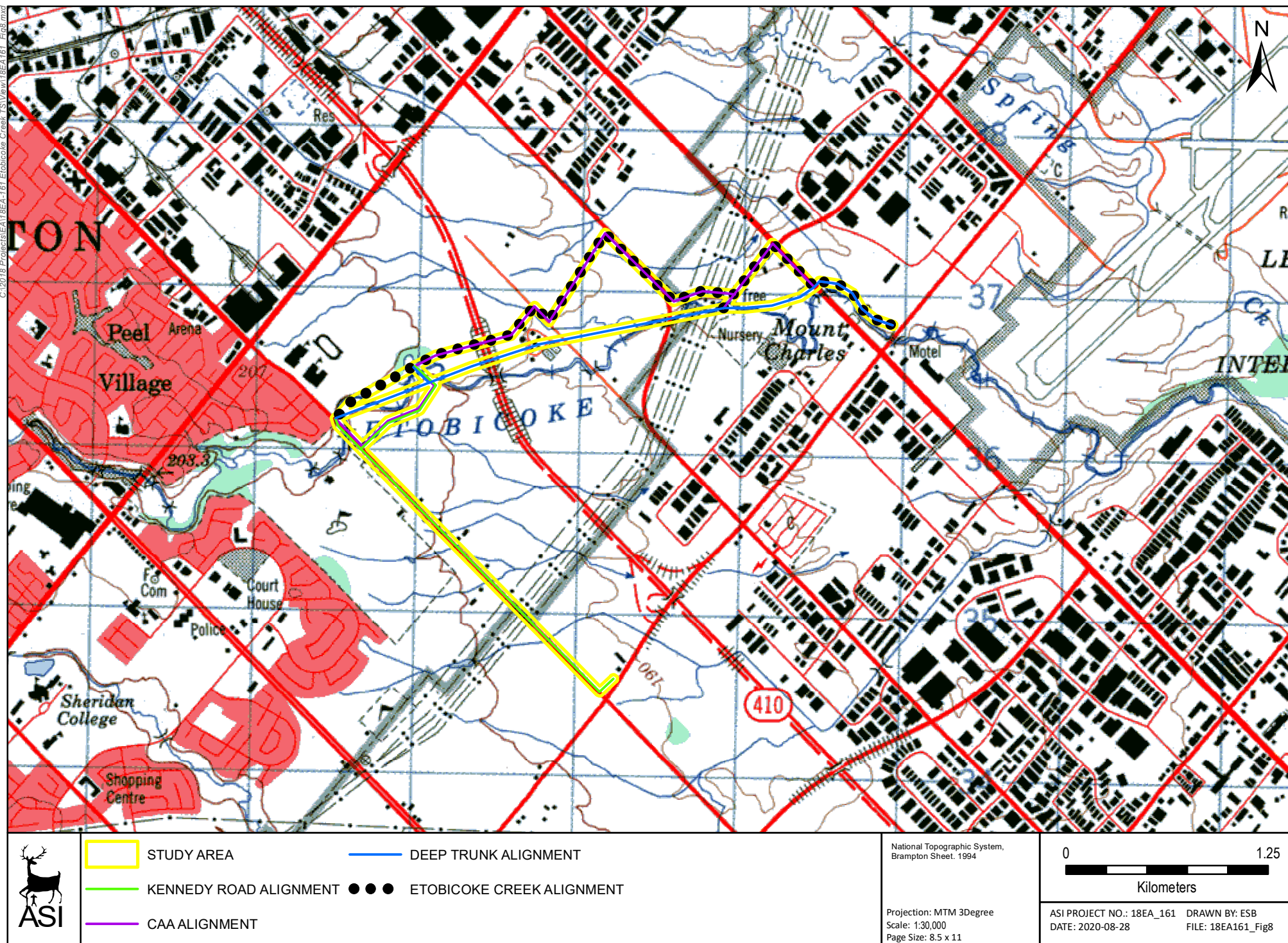


Figure 8: Study Area (Approximate Location) Overlaid on the 1994 NTS Brampton Sheet

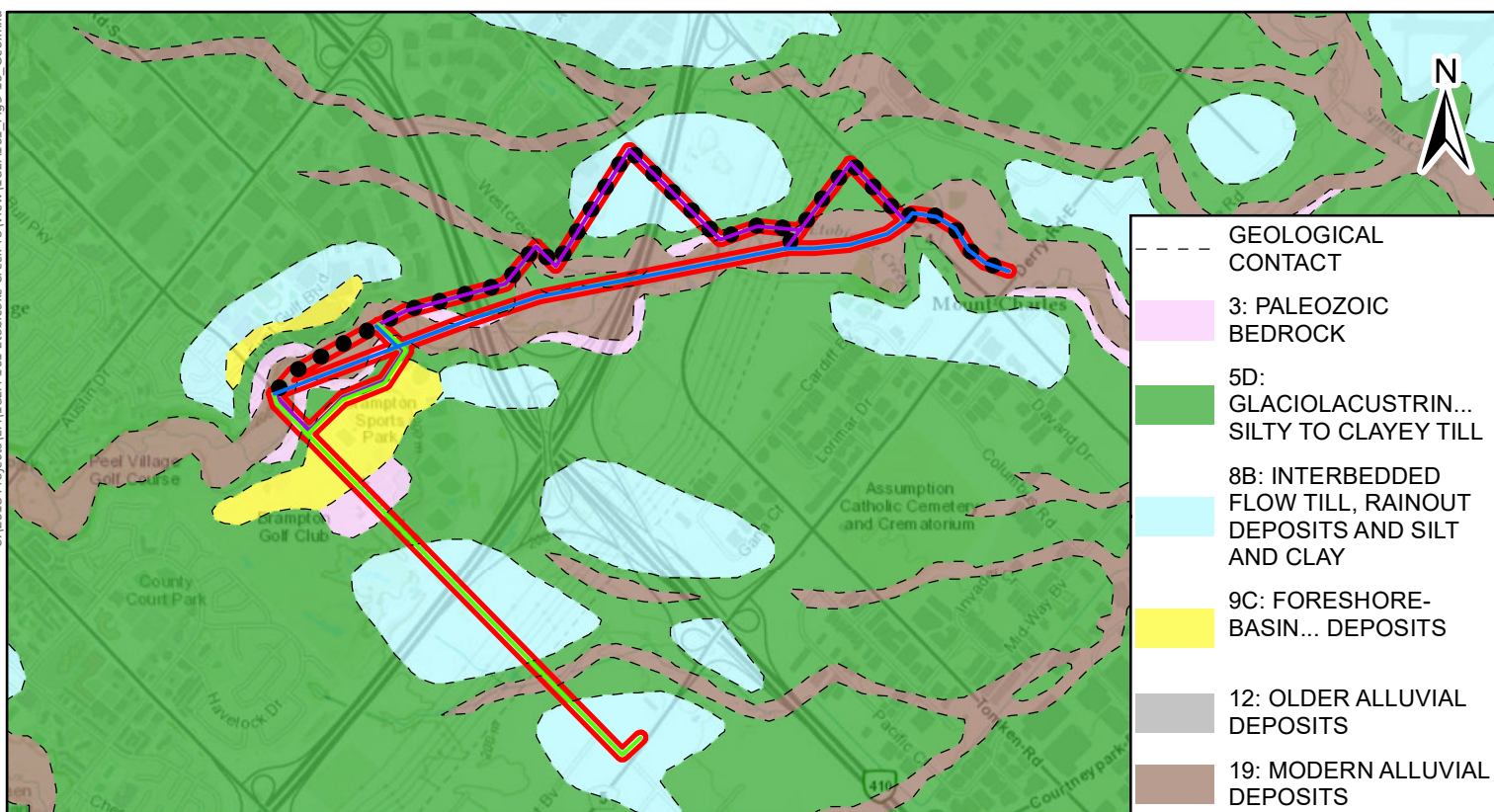


Figure 9: Study Area – Surficial Geology

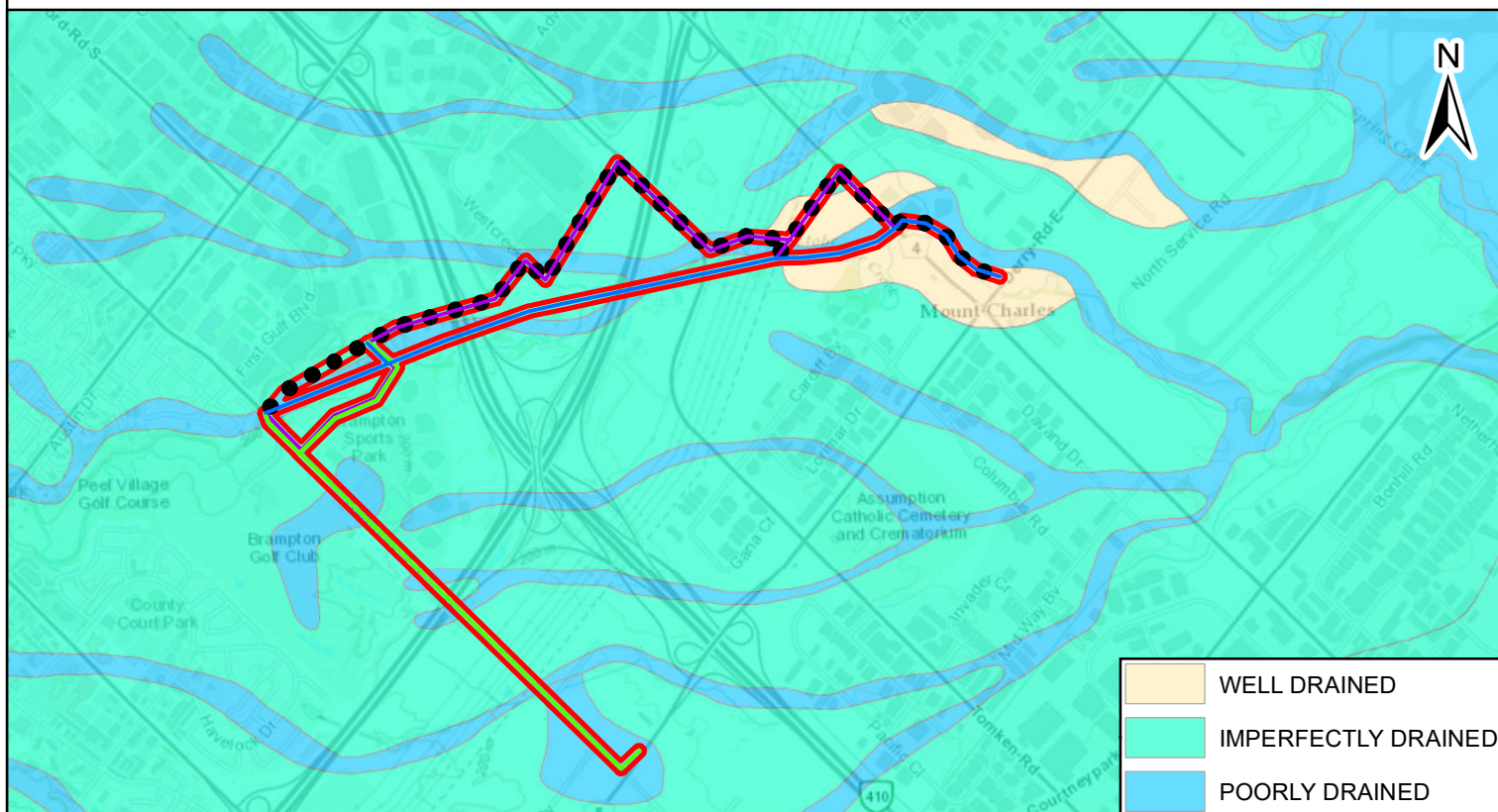


Figure 10: Study Area – Soil Drainage

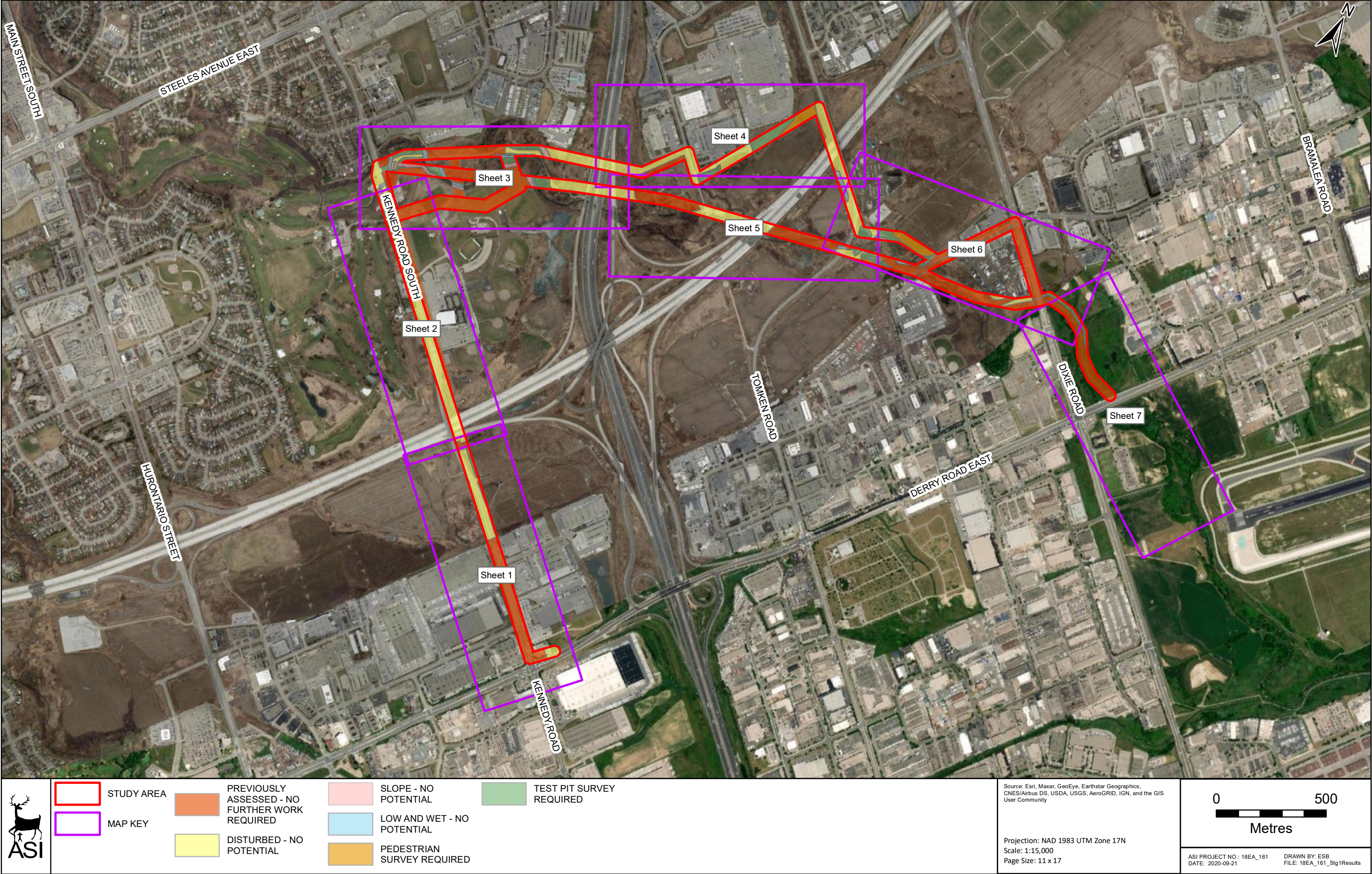


Figure 11: Results of Stage 1 (Key Map)

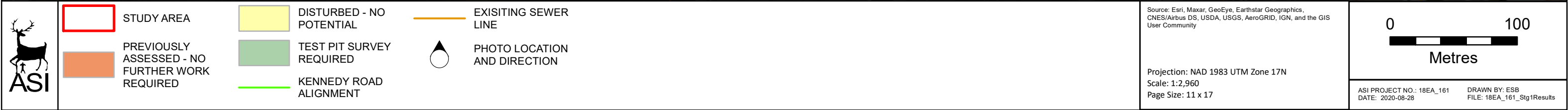


Figure 12:Results of the Stage 1 (Sheet 1)

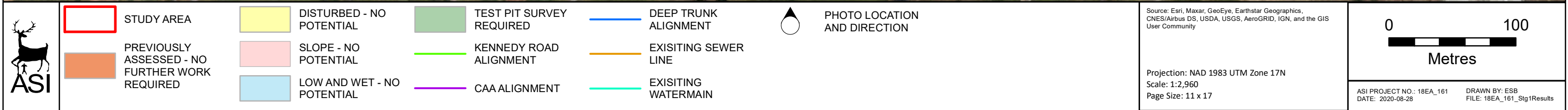


Figure 13:Results of the Stage 1 (Sheet 2)

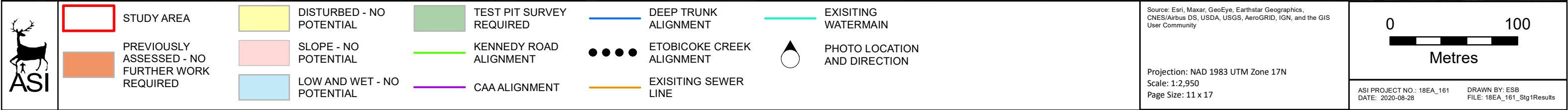
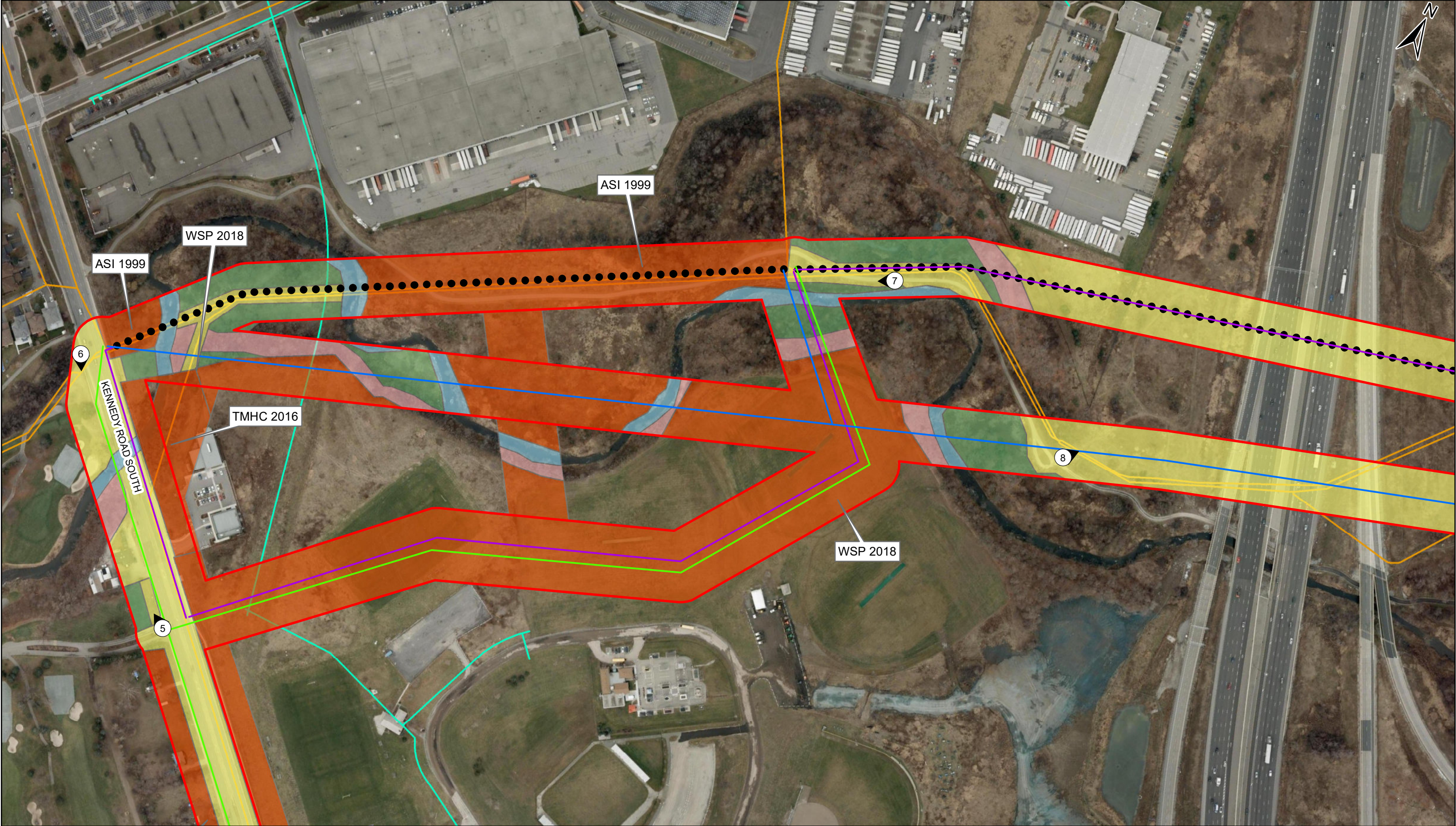


Figure 14:Results of the Stage 1 (Sheet 3)

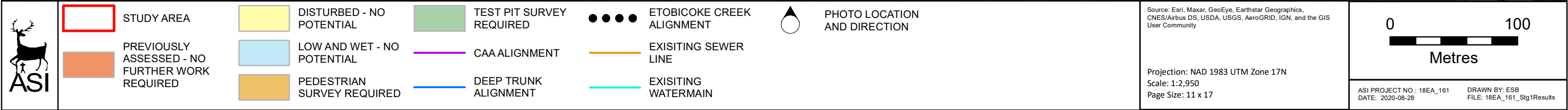
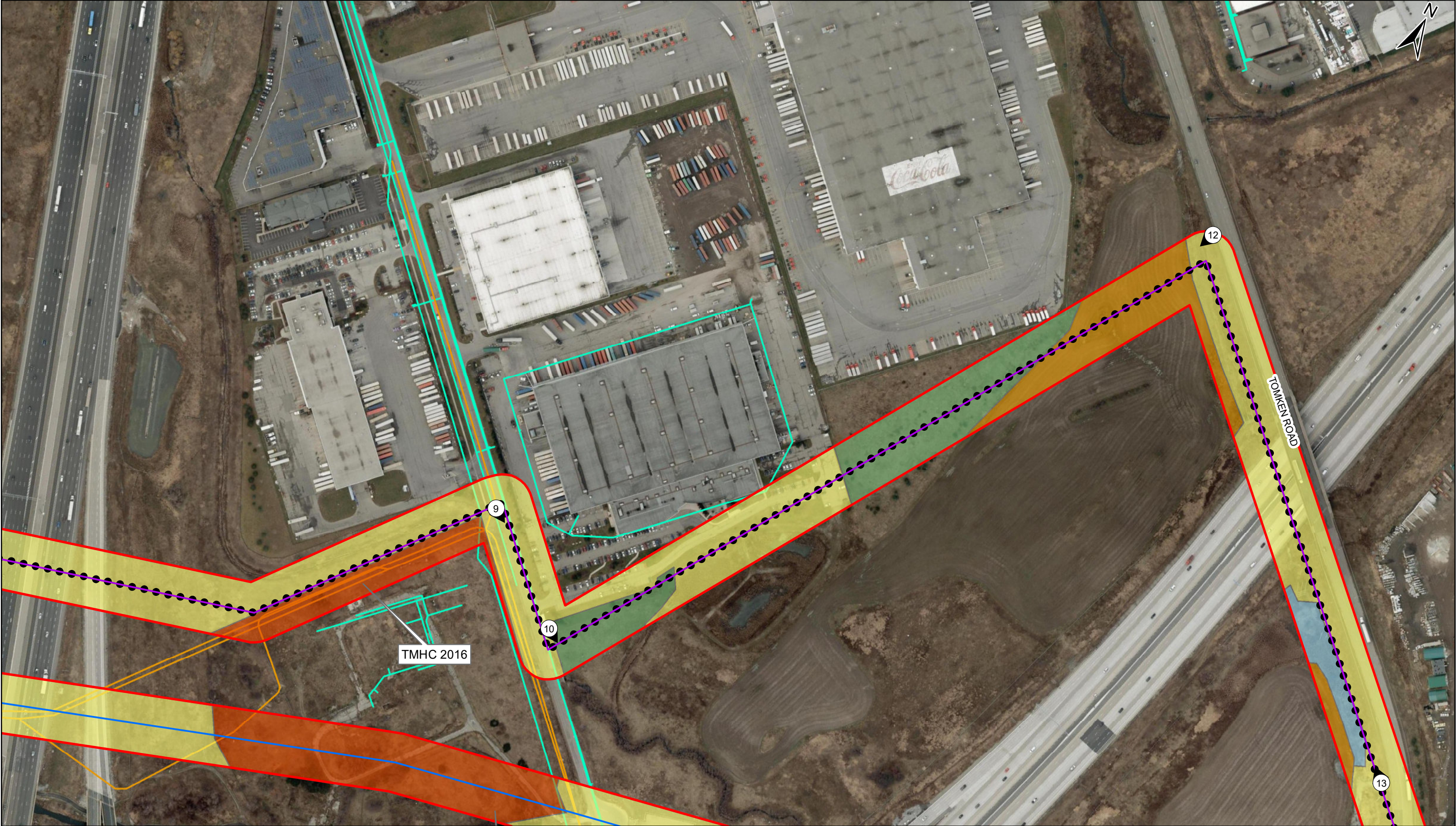
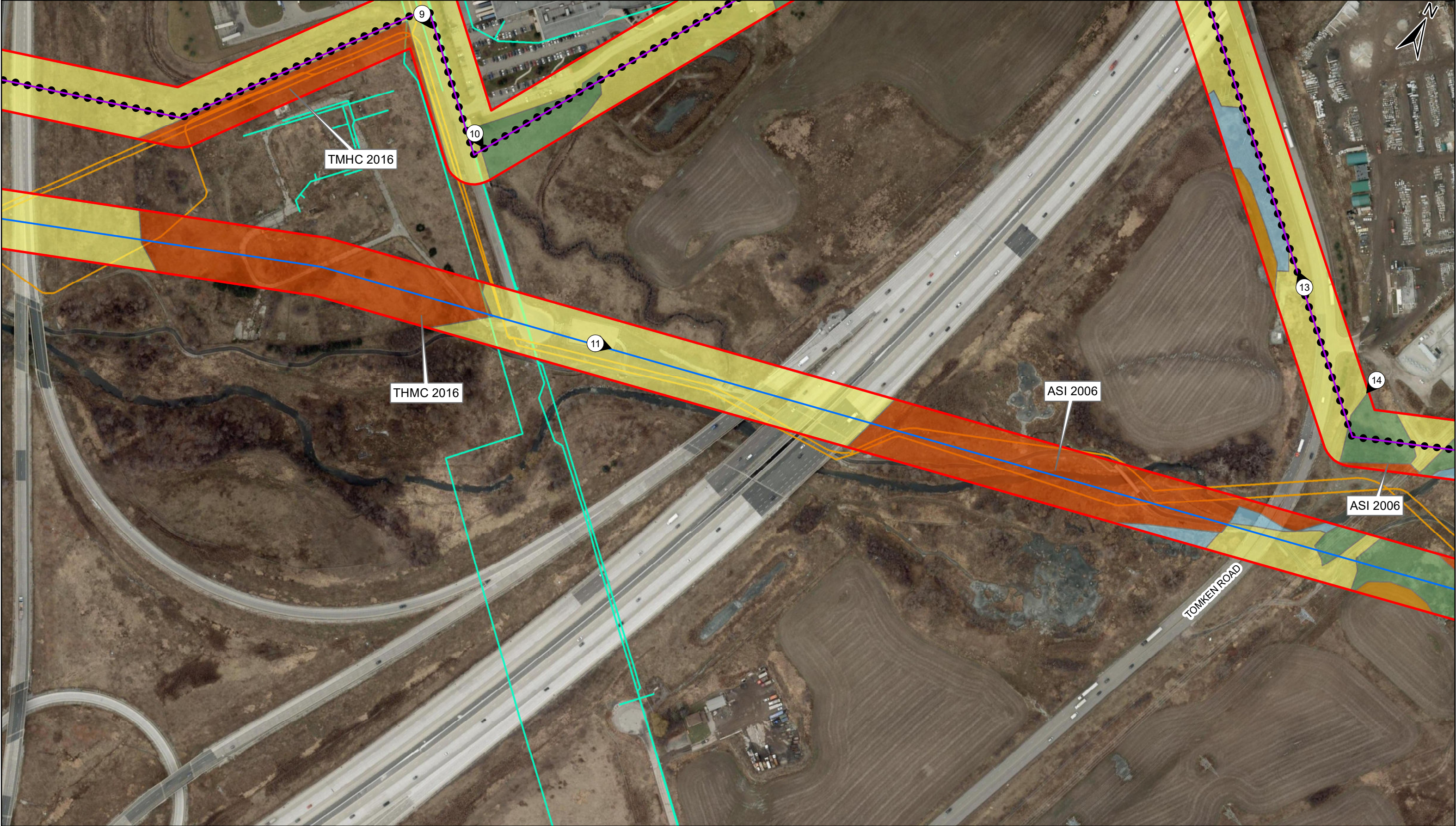


Figure 15:Results of the Stage 1 (Sheet 4)
















	 STUDY AREA	 DISTURBED - NO POTENTIAL	 TEST PIT SURVEY REQUIRED	 ETOBICOKE CREEK ALIGNMENT	 PHOTO LOCATION AND DIRECTION	<p>Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community</p> <p>Projection: NAD 1983 UTM Zone 17N Scale: 1:2,960 Page Size: 11 x 17</p>	<p>0 100 Metres</p>	<p>ASI PROJECT NO.: 18EA_161 DATE: 2020-08-28</p> <p>DRAWN BY: ESB FILE: 18EA_161_Stg1Results</p>
	 PREVIOUSLY ASSESSED - NO FURTHER WORK REQUIRED	 LOW AND WET - NO POTENTIAL	 CAA ALIGNMENT	 EXISTING SEWER LINE	 EXISTING WATERMAIN			
	 PEDESTRIAN SURVEY REQUIRED	 DEEP TRUNK ALIGNMENT						

Figure 16:Results of the Stage 1 (Sheet 5)

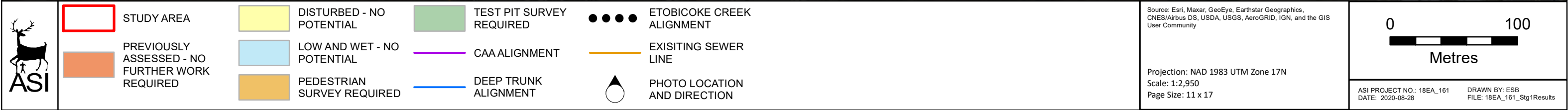
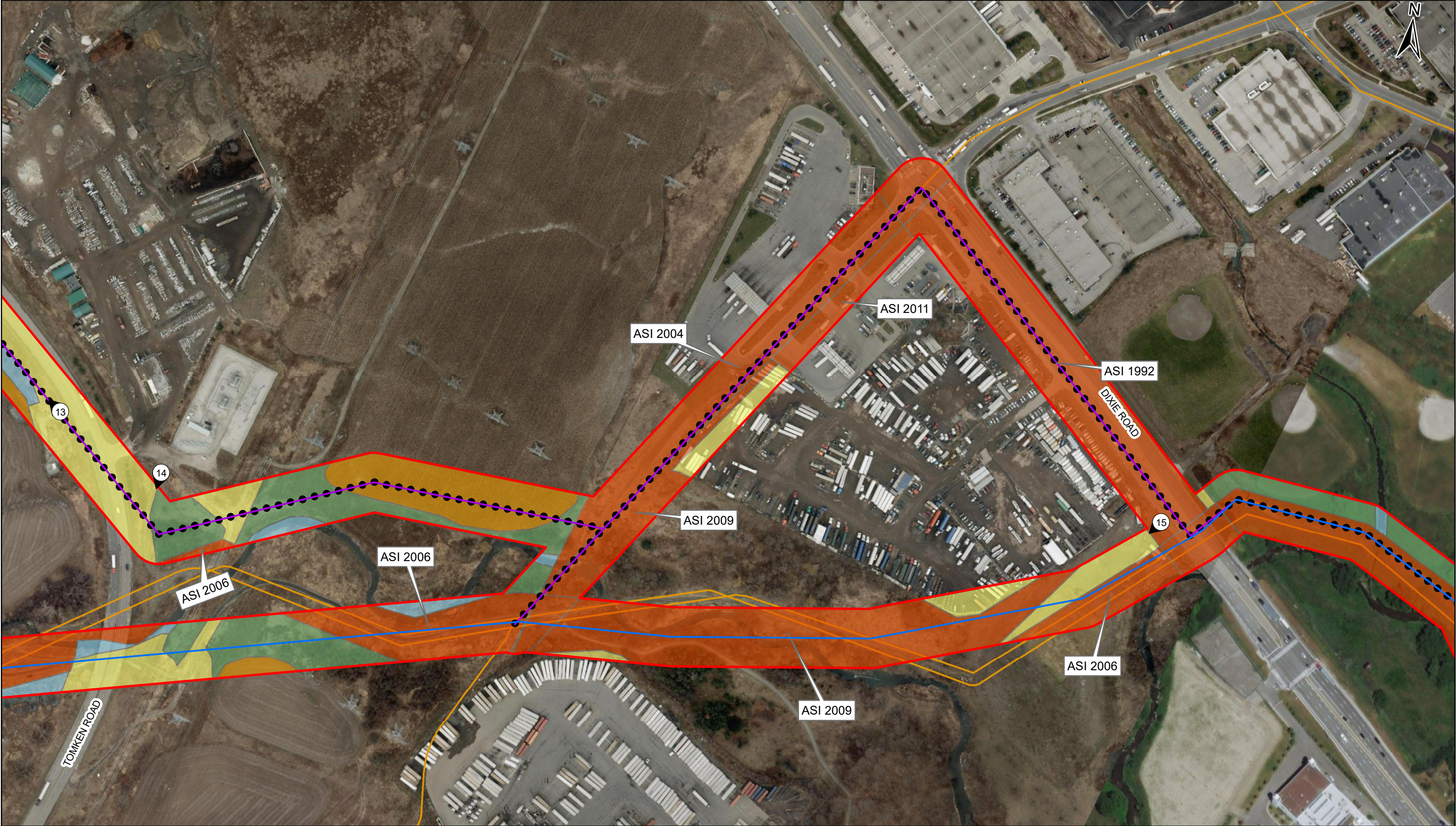











Figure 17:Results of the Stage 1 (Sheet 6)




	 STUDY AREA	 LOW AND WET - NO POTENTIAL	 DEEP TRUNK ALIGNMENT
	 PREVIOUSLY ASSESSED - NO FURTHER WORK REQUIRED	 TEST PIT SURVEY REQUIRED	 ETOBICOKE CREEK ALIGNMENT
	 CAA ALIGNMENT	 EXISITING SEWER LINE	

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Figure 18:Results of the Stage 1 (Sheet 7)

8.0 IMAGES



Plate 1: Derry Road; Area is disturbed, no potential



Plate 2: Path east of Kennedy Road South; Area beyond disturbed path requires test pit survey



Plate 3: Kennedy Road South; Area is disturbed, no potential



Plate 4: Kennedy Road South; Area is disturbed, no potential



Plate 5: Kennedy Road South; Area beyond disturbed ROW requires test pit survey



Plate 6: Kennedy Road South; Area is disturbed, no potential



Plate 7: Etobicoke Creek Recreational Trail; Area is disturbed, no potential



Plate 8: Etobicoke Creek Recreational Trail; Area is disturbed, no potential



Plate 9: Westcreek Boulevard; Area is disturbed, no potential



Plate 10: East of Westcreek Boulevard; Area requires test pit survey



Plate 11: Westcreek Boulevard trailhead; Area is disturbed, no potential



Plate 12: West of Tomken Road; Agricultural field requires pedestrian survey



Plate 13: West of Tomken Road; Area is low and wet or disturbed, no potential



Plate 14: East of Tomken Road; Area is disturbed, no potential



Plate 15: West of Dixie Road; Area is disturbed, no potential