

ORIGINAL REPORT
WOODLAND HERITAGE SERVICES LIMITED
STAGE ONE ARCHAEOLOGICAL ASSESSMENT

STAGE 1 ARCHAEOLOGICAL RESOURCE ASSESSMENT OF THE SECOND AVENUE ROAD WIDENING PROJECT, FROM DONNA DRIVE TO FIRST AVENUE, IN LOT 12 CONCESSION 4 AND LOT 11 CONCESSION 4, NEELON TOWNSHIP, CITY OF GREATER SUDBURY, SUDBURY DISTRICT.

Prepared for

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January 23, 2015

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THE CITY OF GREATER SUDBURY
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Re: Stage 1 Archaeological Resource Assessment Of The Second Avenue Road Widening Project, From Donna Drive to First Avenue, in Lot 12 Concession 4 and Lot 11 Concession 4, Neelon Township, City of Greater Sudbury, Sudbury District.

Please find attached a copy of an initial Archaeological Resource Assessment Report for the above captioned project.

As required by archaeological licence regulations, we will file a digital copy in the specified format via the Ministry of Tourism, Culture and Sport's (MTCS) PastPort Portal for review on your behalf.

We were pleased to have assisted you with this project and hope to be of continuing service with your future undertakings.

Yours truly,
WOODLAND HERITAGE SERVICES LIMITED.



John Pollock
JP/rp, Enclosures

Executive Summary

On September 8th, 2014 Woodland Heritage Services undertook a ground based Stage 1 archaeological resource property assessment in advance of the proposed widening of Second Avenue from Donna Drive to First Avenue and the associated storm sewer work extending to the east through a park towards Plumtree Crescent, in Neelon Township, City of Greater Sudbury, Sudbury District. Refer to Maps 1 and 2.

The field inspection did not locate any areas of archaeological potential. The areas along Second Avenue where disturbances are anticipated have already been disturbed during previous road construction and maintenance work, as well as through the creation of roadside drainage features. Additionally, the stream area was examined and it was revealed that it is, in effect, a seasonally dry gully with non-navigable water. The stream area has also been disturbed through channelization in order to improve drainage. Refer to Images 1-26 and Maps 6 and 7.

Recommendation from Section 2.2

As no areas of archaeological potential were located on the subject property, it is recommended that no further archaeological work be required in advance of the widening of Second Avenue from Donna Drive to First Avenue, and the associated storm sewer work in Lot 12 Concession 4 and Lot 11 Concession 4, Neelon Township, City of Greater Sudbury, Sudbury District.

Project Personnel

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Acknowledgements

Woodland Heritage Services Limited would like to acknowledge the help of The City of Greater Sudbury for providing maps, coordinates and background information.

Table of Contents

1.0 PROJECT BACKGROUND	1
1.1 Development context	1
1.2 Historical context	4
1.3 Archaeological context	9
2.0 STAGE 1 ASSESSMENT BACKGROUND	12
2.1 Stage 1 Analysis and Conclusions	12
2.2 Stage 1 Recommendations	15
3.0 ADVICE ON COMPLIANCE WITH LEGISLATION	15
4.0 MAPS On following pages.	17
5.0 IMAGES On following pages.	26
6.0 REFERENCES	39

List of Maps

Map 1. Project location map showing the location of the project area.	17
An unmodified development plan was submitted to MTCS through PastPort as part of the report package.	18
Map 2. Development plans for the proposed project area.	18
Map 3a. Northern Ontario Engineering Geology Terrain Study (NOEGTS) maps # 5001 and 5003 showing the surficial geology of the project area and the adjacent lands.	19
Map 4. Map of the physiographic regions of Canada (Bostock, 1967).	21
Map 5a. Physiographic map showing the proposed project area clearly located in the Canadian Shield (pink).	22
Map 5b. Legend for the previous map.	24
Map 6. Archaeological potential map showing the ground conditions affecting archaeological potential within the study area.	24
Map 7. Photograph location map showing the locations and directions of photographs used in this report.	25

List of Images

Image 1. Photograph 465 showing a patch of exposed gravel in a disturbed field on the north end of the property.	26
Image 2. Photograph 468 showing some exposed bedrock on the north end of the property.	26
Image 3. Photograph 470 showing a raised mound on the west side of the road, a disturbance caused during the construction of the road.	27
Image 4. Photograph 471 showing the drainage contouring on the west side of the road.	27

Image 5. Photograph 486 showing a gravel snowplough turn around on the west side of Second Avenue.	28
Image 6. Photograph 487 showing the gravel shoulder and a disturbed drainage feature.	28
Image 7. Photograph 510 showing the contouring and a drainage ditch on the west side of Second Avenue.	29
Image 8. Photograph 539 showing the concrete sidewalk and a drainage ditch on the west side of Second Avenue.	29
Image 9. Photograph 542 showing the sidewalk, paved shoulder, and drainage ditch on the west side of Second Avenue.	30
Image 10. Photograph 495 showing a gravel road leading to a disturbed grassy field....	30
Image 11. Photograph 498 showing the disturbed gravel field with grassy vegetation on the west side of the road.	31
Image 12. Photograph 499 showing the side of a gravel road on the west side of Second Avenue.	31
Image 13. Photograph 525 showing the disturbed gravel shoulder of Second Avenue. .	32
Image 14. Photograph 528 showing the shoulder, sidewalk, and manhole cover on the west side of the road.	32
Image 15. Photograph 580 showing the gravel shoulder on the east side of the road. ..	33
Image 16. Photograph 593 showing the gravel shoulder and asphalt sidewalk on the east side of the road.	33
Image 17. Photograph 594 showing the gravel shoulder on the east side of the road. ..	34
Image 18. Photograph 583 of the park on the east side of Second Avenue.	34
Image 19. Photograph 590 of the north end of the park, showing the contouring for drainage purposes.	35
Image 20. Photograph 601 showing the paved shoulder and the parking lot of a local business.	35
Image 21. Photograph 484 looking eastwards towards a local business on the east side of the road.	36
Image 22. Photograph 627 of the dry creek bed.	36
Image 23. Photograph 629 showing boulder-embedded concrete in the disturbed creek bed.	37
Image 24. Photograph 636 looking towards the creek.	37
Image 25. Photograph 644 showing cattails and other grasses growing in the seasonal creek bed.	38
Image 26. Photograph 648 of the location where the stream crosses Highgate Road to the north.	38

Limitations to this report

Some information in this report may be confidential, including any photos, maps, texts of narrative information concerning First Nation communities and / or private informants. The Freedom of Information and Protection of Privacy Act requires that this information be kept secure and not be distributed to unauthorized parties. Further, the Standards and Guidelines for Consultant Archaeologists (2011), Section 7.3.3 requires that such information is not contained in reports which may be entered into the Ontario Public Register of Archaeology Reports. As such, this information, although available to the report author, may not be transmitted as part of the report package except as required for Ministry of Tourism, Culture and Sport review.

Some information in this report may be sensitive, including the location of registered archaeological sites. Policy developed under the Ontario Heritage Act requires that this information be kept secure and not be distributed to unauthorized parties. Further, the Standards and Guidelines for Consultant Archaeologists (2011), Section 7.6.1, standard 1 requires that any information that identifies the location of an archaeological site be presented only in the supplementary documentation to the report. The supplementary documentation is excluded from the Ontario Public Register of Archaeology Reports. As such, this information, although available to the report author, may not be transmitted as part of the report package except as required for Ministry of Tourism, Culture and Sport review.

This report has been generated for the proponent named on the cover page of this report for their exclusive use, and for the explicit purposes defined in the Executive Summary. Further distribution, modification or publication of this report is not permitted without prior written agreement from Woodland Heritage Services. While this document is believed to contain correct information, neither Woodland Heritage Services, nor its affiliates makes any warranty, either expressed or implied, or assumes any legal responsibility for the completeness or usefulness of any results or any information disclosed. The interpretation of this and any other data related to this report is solely the responsibility of the client.

As set out in the Ontario Heritage Act and associated Regulations, archaeological assessment has as its focus only material remains of past human use and occupation of landscapes. Archaeological assessments completed under the terms and conditions of a licence issued under the authority of the Ontario Heritage Act do not directly involve documenting Native values, traditional land use, traditional ecological knowledge or traditional territories. While this information is at times valuable in evaluating archaeological potential or interpreting archaeological sites, the use of such information does not render it part of the archaeological record. Control over the recording and use of this information rests solely with the individuals and communities wherein the knowledge resides.

1.0 PROJECT BACKGROUND

This section of the project report provides the context for the archaeological fieldwork. The project background section covers three areas: development context (including regulatory context), historical context, and archaeological context.

1.1 Development context

Woodland Heritage Services Limited was retained by the City of Greater Sudbury to complete a Stage 1 Archaeological Resource Assessment in advance of the widening of Second Avenue from Donna Drive to First Avenue and the associated storm sewer work extending to the east through a park towards Plumtree Crescent, in Neelon Township, City of Greater Sudbury, Sudbury District (Maps 1 and 2).

The archaeological fieldwork was completed in advance of any new ground disturbing activities. The locations can be located by referring to Maps 1, 2, 6, and 7.

Woodland Heritage Services received permissions to pass on the properties and perform all activities related to Stage 1 archaeological and cultural heritage assessments.

1.1.1 Regulatory Context

This Archaeological and Cultural Heritage Resource Assessment Study was undertaken within the context of the *Planning Act* and the 2005 Provincial Policy Statement issued under the authority of the *Planning Act*.

According to the 2005 Provincial Policy Statement, "Ontario's long-term prosperity, environmental health, and social well-being depend on protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits," (p.15). Section 2.6 of the Provincial Policy Statement outlines the *Planning Act's* approach towards cultural heritage and

archaeology:

2.6 CULTURAL HERITAGE AND ARCHAEOLOGY

2.6.1 *Significant built heritage resources and significant cultural heritage landscapes shall be conserved.*

2.6.2 *Development and site alteration shall only be permitted on lands containing archaeological resources or areas of archaeological potential if the significant archaeological resources have been conserved by removal and documentation, or by preservation on site. Where significant archaeological resources must be preserved on site, only development and site alteration which maintain the heritage integrity of the site may be permitted.*

2.6.3 *Development and site alteration may be permitted on adjacent lands to protected heritage property where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.*

Mitigative measures and/or alternative development approaches may be required in order to conserve the *heritage attributes* of the *protected heritage property* affected by the adjacent *development or site alteration*.

As such, before the City of Greater Sudbury can widen Second Avenue, an archaeological resource assessment must be undertaken.

Generally, archaeological resource assessment studies are classified as Stage 1 through Stage 4, as follows:

- **Stage 1:** Preliminary assessment to determine if there are any known significant archaeological resources in the immediate vicinity of or on the subject property and the potential of the site to have heritage resources.

- **Stage 2:** Completion of a property inspection by a licensed archaeologist if the Stage 1 assessment identified known resources or the presence of archaeological potential areas, if recommended.
- **Stages 3 and 4:** Advanced site-specific archaeological mitigation through excavation, documentation or avoidance, if recommended.

As mentioned above, a Stage One Assessment is an overview of potential archaeological sites which under regulations involves field visits and potential mapping but no detailed site mapping or test pits which would be part of a Stage Two project.

Under the Ontario Heritage Act, (R.S.O. 1990) anyone wishing to carry out archaeological fieldwork in Ontario must meet the following criteria:

- Have a licence from the Ministry of Tourism, Culture and Sport.
- File a report with the Ministry of Tourism, Culture and Sport containing details of the fieldwork that has been done for each project.
- File information about the archaeological site with the Ministry of Tourism, Culture and Sport for each project.

Under Ontario Regulation 8/06 of the Ontario Heritage Act, “consultant archaeologist” means “an archaeologist who enters into an agreement with a client to carry out or supervise archaeological fieldwork on behalf of the client, produce reports for or on behalf of the client and provide technical advice to the client”.

Refer to Section 3.0 of this report titled, “Advice on compliance with legislation” for more information.

1.2 Historical context

In pre-contact and early historic times prior to the arrival of Europeans, First Nations Peoples were active in the study area. Evidence of human activity can be traced back to the retreat of the last series of glaciers.

1.2.1 First Nation Archaeological Overview

In pre-contact and early historic times prior to the arrival of Europeans, First Nations Peoples were active in the study area. Evidence of human activity can be traced back to the retreat of the last series of glaciers.

Archaeologists generally divide the historic sequence in Ontario into pre-European contact and post-European contact. The pre-contact historical sequence is further subdivided into temporal/cultural periods based on material culture traits and settlement patterns derived from archaeological data. The pre-contact sequence is divided as follows:

- Late Paleo-Indian (circa 7,000 - 5000 BC)
- Shield Archaic (circa 5,000 - 500 BC)
- Middle Woodland (circa 500 BC - AD 1200)
- Late Woodland (circa AD 1200 - 1600)

Archaeologists' understanding of the post-European contact period is based in both archaeological and documentary research. The post-contact historical sequence can be described in terms of significant themes relating to the consecutive waves of influence from, primarily, eastern Canada. The post-contact historic sequence is generally subdivided according to the main Euro-Canadian economic or political trends. The major post-contact periods in northeastern Ontario are divided as follows:

- Early post-contact (circa AD 1600 – 1865)

Survey and Development (circa AD 1865 – 1940)

Additional subdivision of each period is possible, depending on the historical themes being examined. In this report, we have identified a series of sub-themes based on the development of resource industries in the region and vicinity of the subject property.

Following is a brief summary of the relevant archaeological periods for northeastern Ontario, which appears to begin with the Shield Archaic.

Shield Archaic. The earliest known inhabitants of the northeastern Ontario some 6,000 – 8,000 years ago were the Shield Archaic Peoples. In northern Ontario, this period represents about 4,000 years of occupation of an area stretching from Manitoba to Quebec. The Shield Archaic appears to evolve directly out of the preceding Late Palaeo period (not known archaeologically in northeastern Ontario), although there are several key differences in material culture. While Shield Archaic quarry/workshop and habitation sites continue the use of the same raw materials and a similar lithic technology centred on the production of large bifaces and somewhat less refined lanceolate points, over time, this technology yields to a wider variety of projectile point styles, including various forms of stemmed and notched points. Of interest in northern Ontario is the rise in the use of native copper in the production of tools and decorative items (Wright, 1972a; Pollock, 1984).

The initial Shield Archaic peoples appear to have been wide ranging big game hunters. As the environment stabilised following the glacial retreat, these people shifted to an economy of smaller game and fishing which required smaller tools and a more local, territorial seasonal round to exploit resources at different times of the year. This trend from big game to more diverse, local resources appears to have continued through the Shield Archaic period to about 2,000 years ago.

Early Shield Archaic sites may be more closely associated with post glacial landscape features such as relict shorelines. As the environment stabilised, sites became more widely distributed, and associated with suitable occupation locations on modern lakes and rivers.

Middle Woodland (Laurel). In terms of material culture, the Middle Woodland was similar to the preceding Shield Archaic, but with the addition of fired clay pottery. As clay is a more plastic and malleable material than stone, distinct surface variations in decoration and structural variations in vessel construction allow archaeologists to develop refined distinctions between different ceramic types. Middle Woodland pottery vessels are characteristically thin-walled, with straight sided rims and pointed bases and decorations made using plain tool impressions (Wright, 1967).

The Middle Woodland economy appears to have been similar to the Shield Archaic, with seasonal exploitation of a variety of subsistence resources the norm. Based on the distribution of sites, it is understood that extended family groups traversed hunting, fishing or gathering territories in pursuit of large and small game, and fish for subsistence during most of the year. In the summer these groups may have come together into larger bands on larger lakes or rivers. The presence of a series of large ceremonial mounds containing burials, centred on the Rainy River in northwestern Ontario, also suggests that during some years, larger ceremony based gatherings also occurred (Arthurs, 1986; Reid and Rajnovich, 1991).

Other than the summer group campsites, Laurel sites are generally small, possibly reflecting the establishment of a seasonal round which saw the Laurel people break up into individual families during the fall, winter and spring periods of the year to more effectively exploit available resources. Laurel site distribution and settlement patterns differ from the inland site pattern noted for the Archaic period and set the pattern for

settlement in the following Terminal Woodland period. Laurel peoples showed a preference for large lakes and rivers with preferred campsites on sandy bays, portage ends, points, peninsulas and locations near waterfalls, below rapids and at river mouths. These locations served for the establishment of small, seasonal hunting and fishing camps.

Late Woodland (Blackduck and Selkirk). The Middle Woodland (Laurel) material culture appears to have gradually evolved into the late Woodland. This transition is not as evident in the lithic and copper artifacts, but the pottery makes a notable change to thin-walled, globular pots with constricted necks and widened lips decorated using a combination of plain and 'cord-wrapped' object impressions. Two main pottery types are noted by archaeologists who have speculated that a more southerly type (Blackduck) represents early Ojibway culture, while the more northerly type (Selkirk) represents a Cree culture (Wright, 1972b; MacNeish, 1958).

Recent data from northern Ontario suggests a trend toward an increase in population during the Terminal Woodland period reflected in an increased frequency of sites recovered during archaeological surveys. Archaeological evidence suggests that a seasonal cycle of travelling to resource exploitation areas may have been well established during this era. Site locations follow an established pattern with preference given to level places on islands, peninsulas, narrow parts of lakes, sandy beaches and portage ends, as well as rapids and waterfalls on rivers. These people were the ancestors of present day regional cultural/social groups (Settlement Surveys Ltd. 1995:37).

Early Post-Contact (Fur Trade). European contact in northern Ontario was disruptive to the natural evolution of material culture, traditional land use and subsistence practice among indigenous populations. It is understood that traditional material cultural items were supplanted quite rapidly by corresponding trade items imported from Europe. As

the pursuit of furs became increasingly important to the purchase and replacement of trade items, subsistence practices became displaced by exploitation of fur resources. Settlement patterns also changed, although more gradually, trading trips to fur trade posts were introduced, and in some cases settlement occurred at or near fur trade posts or, later, near the railways.

Historical documents also begin to name the indigenous occupants of the region. The northern interior shield area, were inhabited by Anishnabeg Peoples (Ojibwa and Algonquin). Farther north in Ontario was the traditional territory of the Cree. Their first contact with Europeans was with the Recollects and Jesuit missionaries and other French explorers and traders during the period 1616 to 1649 (Lytwyn, 2002).

It is important to note that during the middle decades of the seventeenth century there was a series of intertribal wars for control of the fur trade. These wars involved Iroquoian groups from south of the Great Lakes (Mohawk, Onondaga, Oneida, Seneca and Cayuga) in a conflict against the Huron-Petun and Neutral in southern Ontario. Attempts to form peace or commercial treaties failed, denying the Iroquoian groups access to lucrative northern trade relationships with groups such as the Nipissing, the 'middlemen' of the trade all the way north to James Bay (Hunt 1940:35, 45). In March of 1649, an attack by a party of 1000 Mohawk and Senecas on the Huron town of St. Ignace (Hunt 1940:92) led to the Huron fleeing southern Ontario, and the displacement of numerous other groups in the upper Great Lakes. While many of these groups regained their territories later in the 17th century, the Huron did not.

It should be noted that one or more First Nation or Métis populations live and use the land in, and around the study area. It is not within the scope of a technical archaeological report to comment on the various First Nations and their respective

involvement, land-use and traditional territories. Recent and modern First Nation or Métis histories are best addressed by the First Nations themselves.

1.3 Archaeological context

1.3.1 Registered Archaeological Sites

Before initiation of fieldwork, the site files and catalogued reports at Woodland Heritage Services Ltd. and/or the offices of the Archaeological Data Coordinator, Ministry of Tourism, Culture and Sport were checked to determine if any pre-contact or post-contact archaeological sites had been previously recorded either in or near the study area.

There are no registered archaeological sites within 1 kilometre of the proposed project area.

1.3.2. Current Land Use(s), Field Conditions, Soils and Topography

The project area is located along the side of Second Avenue and as such, it is used primarily for transportation and drainage purposes. Part of the project area is located adjacent to a public park used for recreational purposes. The portion of the study area leading to the mapped stream is used as a residential area.

According to Northern Ontario Engineering Geology Terrain Study (NOEGTS) maps #5001 and 5003, the north portion of the project area is located on a well-drained, low-relief terraced glacial outwash plain typically composed of gravel and sand. The south portion is located on a well-drained, low-relief glacial outwash plain typically composed of sand and silt. This portion of the property is suspected of having a high water table. Refer to Map 3.

The vegetation of this area is typical of the Great Lakes – St. Lawrence transition forest with mixed forest and varying stages of growth. Great Lakes – St. Lawrence transition forests typically feature species such as white pine, spruce, cherry, and birch.

The study area is located within the Canadian Shield and as such, the 2011 Standards and Guidelines relating to Shield regions were followed. For a map showing the project area within the Canadian Shield, refer to Maps 4 and 5.

1.3.3. Fieldwork Schedule

The fieldwork component of the study was carried out September 8th, 2014.

1.3.4. Past Fieldwork

Past fieldwork was carried out by Settlement Surveys / Woodland Heritage Services in the regional study area.

In 2011, a Stage 1 and 2 archaeological assessment was undertaken approximately 5 km to the north on 10 areas along the proposed Maley Drive extension within the City of Greater Sudbury, Ontario (MTCS PIF P208-029-2011; Woodland Heritage Services, 2011). All areas displaying archaeological potential were tested using a sub-surface testing regimen conforming to MTCS requirements. Through the Stage 1 and 2 assessment, it was found that many areas had been previously disturbed or were permanently saturated. No areas of archaeological potential, or archaeological or cultural heritage resources were located. It was recommended that the City of Greater Sudbury be allowed to proceed with their plans to develop the Maley Drive extension without further archaeological work.

In 2010, a Stage 1 archaeological and cultural heritage assessment was carried out as part of G.W.P. No. 5122-06-00 for four Variable Message Sign (VMS) locations in

northeastern Ontario (MTCS PIF P016-287-2010; Woodland Heritage Services, 2011). One location was approximately 10 km east of the proposed project area, roughly 1.2 km. east of Hwy. 90 by Coniston on Highway 17. All four areas were inspected visually and no areas of archaeological potential were identified through the Stage 1 archaeological and cultural heritage assessment. As the areas around VMS #15, VMS #16, VMS#17 and VMS #18 did not have archaeological potential, it was recommended that the proponent be allowed to proceed with their plans of developing the variable message signs.

In 2009, a Stage 1 and 2 Archaeological and Cultural Heritage Resource Assessment was undertaken approximately 5 km to the southeast on a 12.1 km portion of Highway 17 from 1 Km West of Highway 69, easterly to East Junction of Sudbury Municipal Road 55 (MTCS PIF P016-230-2009; Woodland Heritage Services, 2009). Archaeological subsurface testing in a 5m grid pattern in areas of high archaeological potential was conducted, producing negative results for the location of archaeological or cultural heritage resource. It was recommended that the proponent be allowed to proceed with the rehabilitation work and that all former high potential archaeological areas required for the highway construction be reclassified as low potential.

To the best of our knowledge, no archaeological fieldwork has previously been undertaken within the current project area.

1.3.5. Physical features affecting fieldwork strategy, decisions or the identification of artifacts or cultural features.

During the property inspection, it was revealed that the storm sewer work area leading to the mapped stream was privately owned and used for residential purposes. As such, access to these areas was not possible. However, a property inspection at nearby accessible areas of the creek demonstrated that the creek is a seasonally dry gully and

has been disturbed and channelized for drainage purposes. Therefore, it does not display archaeological potential.

According to Standard 1.2.1 of the Ministry of Tourism, Culture and Sport's *2011 Standards and Guidelines for Consultant Archaeologists*, the property inspection coverage was sufficient to identify the presence or absence of any features of archaeological potential within the project area.

2.0 STAGE 1 ASSESSMENT BACKGROUND

This section of the report details the property inspection, areas of identified archaeological potential, and recommendations concerning future archaeological resource work that may be required.

2.1 Stage 1 Analysis and Conclusions

2.1.1 Property Inspection

Prior to the field inspection, satellite imagery, surficial geology mapping, and past Woodland Heritage Services Ltd. reports were used to inform the on-ground survey portion of this Stage 1 assessment. On-ground spot-checks, in addition to transects, were carried out in order to determine the property's cultural heritage value or interest.

Background research into glacial shoreline features did not identify relict areas of immediate post-glacial archaeological potential within the project area. Refer to Map 3.

A variety of land conditions were encountered and documented through detailed photographic, textual and geographic means including the use of multiple handheld GPS devices.

It is important to note that not all water features depicted on the topographic / digital mapping are considered to be associated with archaeological potential. For example, some mapped waterbodies are in actuality small seasonal streams, flooded beaver ponds, or simply dry gullies. These areas do not represent features of archaeological potential. During this assessment, it was revealed that the stream appearing on the City of Greater Sudbury's development plans as well as the National Topographic System (NTS) map was a seasonally dry gully with non-navigable water. Additionally, a pond mapped near the intersection of Second Avenue and Donna Drive was not present; the field inspection demonstrated that it was in actuality a disturbed grassy gravel field (Image 1).

The property inspection was commenced at the northern limit of the property, at the intersection of Second Avenue and Donna Drive. The west side of Second Avenue was examined first, beginning at Donna Drive and extending southwards to First Avenue. Upon reaching the southern boundary of the study area, the property inspection was continued on the east side of Second Avenue, extending northwards towards Donna Drive. Finally, the location of the storm sewer work extending through the park towards Plumtree Crescent was assessed. The mapped "stream" into which the storm sewer flows was also observed in order to provide local environmental and topographical context.

At the northernmost section of the property, a disturbed grassy field with areas of exposed gravel is located on the west side of Second Avenue (Image 1). Immediately to the south, a small knob of exposed bedrock is located adjacent the roadside (Image 2). The shoulder on the west side of the road has been disturbed during previous road construction and maintenance efforts: some areas feature gravel shoulders, including a snow plough turn-around (Images 5, 6, 13, and 14), while other areas are paved (Images 9 and 14) and feature sidewalks (Images 8, 9, and 14). Along Second Avenue, the

roadside has been contoured for drainage purposes (Images 3, 4, 6-9) or for landscaping purposes. A small, gravel side road is located approximately 600 metres north of First Avenue, leading to a disturbed grassy field on mechanically-levelled gravel (Images 10-12).

Much like the west side of Second Avenue, the east side features disturbed paved and unpaved shoulders (Images 15-17, 20, and 21). Private properties and businesses are located adjacent the road, many of which have been paved for parking or landscaped (Images 20 and 21). Roughly 250 metres north of First Avenue, a park is located on the west side of the road (Image 18). The north end of this park, the location of the storm sewer work, has previously been disturbed in order to contour the property for drainage purposes (Image 19).

Finally, the location of the mapped “stream” was assessed. Upon visiting the stream, it was revealed that the stream was in fact a seasonally dry gully with a non-navigable waterbody. The stream bed, though featuring water-tolerant vegetation such as cattails, sedges, and alder, did not contain open water and is largely artificial in nature (Images 22-25). The drainage stream has been modified and channelized, likely during the construction of the subdivision in which it is located. Boulder-embedded concrete was witnessed in some areas functioning as a creek bank and bed (Image 23). The location where the stream crosses Highgate Road to the north was also observed in order to assess the nature of the stream (Image 26).

2.1.2 Identify and describe areas of archaeological potential within the project area.

Areas of archaeological potential were not identified during the field inspection of the proposed project area.

2.1.3 Identify and describe areas that have been subject to extensive and deep land alterations.

Located in urban Sudbury, the entire project area has previously been disturbed. The areas of Second Avenue which are to be impacted by the road widening project have already been disturbed by the construction and maintenance of the road and the creation of roadside drainage features. The “stream” into which the storm sewer drains is not considered to be a feature of archaeological potential; not only does it not have enough water to allow for water-based travel but it has also been disturbed and channelized to improve local drainage.

2.2 Stage 1 Recommendations

As no areas of archaeological potential were located on the subject property, it is recommended that no further archaeological work be required in advance of the widening of Second Avenue from Donna Drive to First Avenue, and the associated storm sewer work in Lot 12 Concession 4 and Lot 11 Concession 4, Neelon Township, City of Greater Sudbury, Sudbury District.

3.0 ADVICE ON COMPLIANCE WITH LEGISLATION

Advice on compliance with legislation is not part of the archaeological record. However, for the benefit of the proponent and approval authority in the land use planning and development process, the report must include the following standard statements:

1.
 - a) This report will be submitted to the Ministry of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that the licensed consultant archaeologist has met the terms and conditions of their archaeological licence, and that the archaeological fieldwork and report

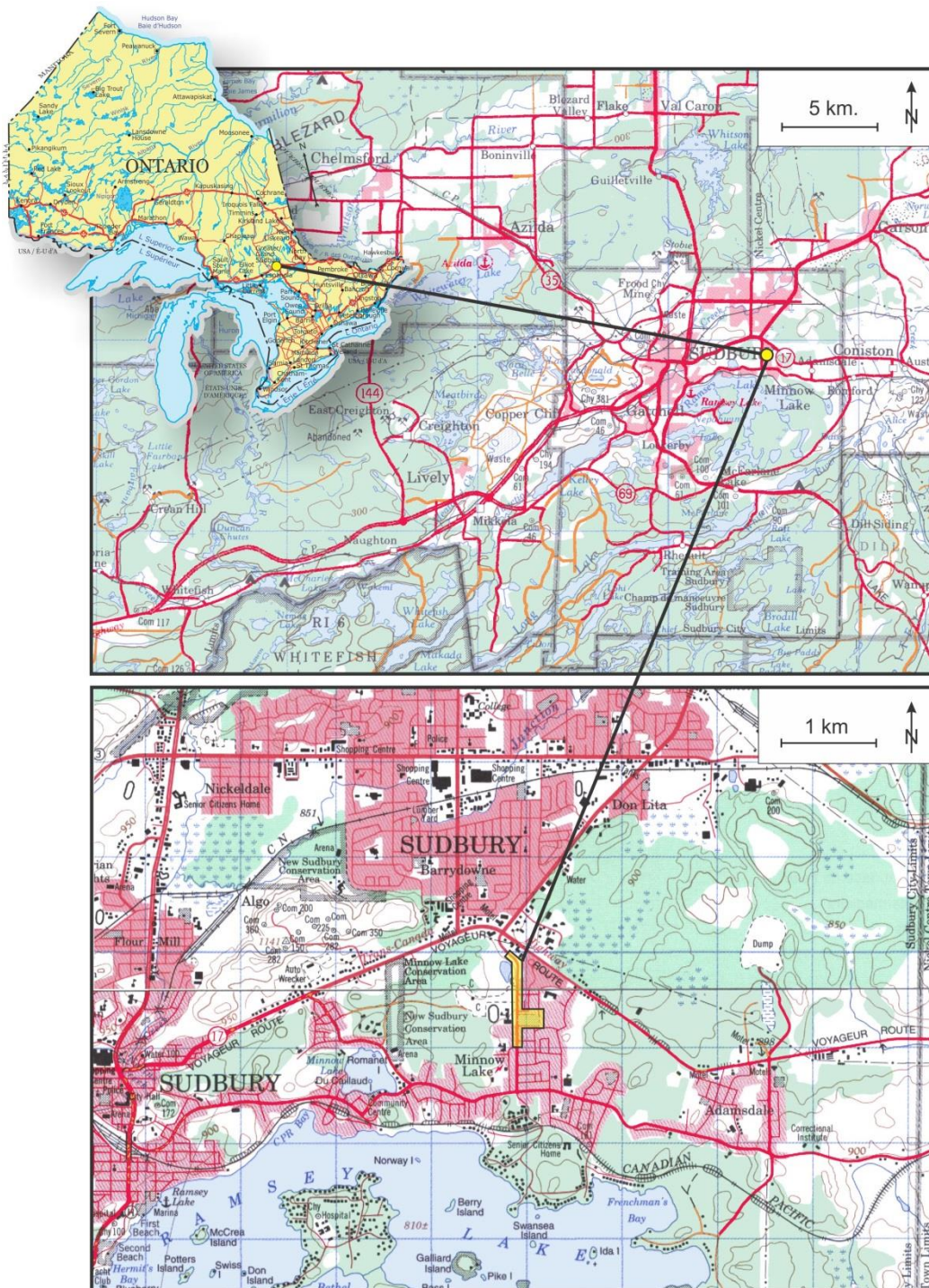
recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario.

- b) 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 artefact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public register of Archaeological Reports referred to in section 65.1 of the *Ontario Heritage Act*.
- c) 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*.
- d) The *Cemeteries Act, R.S.O. 1990 c. C.4* and the *Funeral, Burial and Cremations 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, Ministry of Small Business and Consumer Services.

2. Reports recommending further archaeological fieldwork or protection for one or more archaeological sites must include the following standard statement:

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

4.0 MAPS



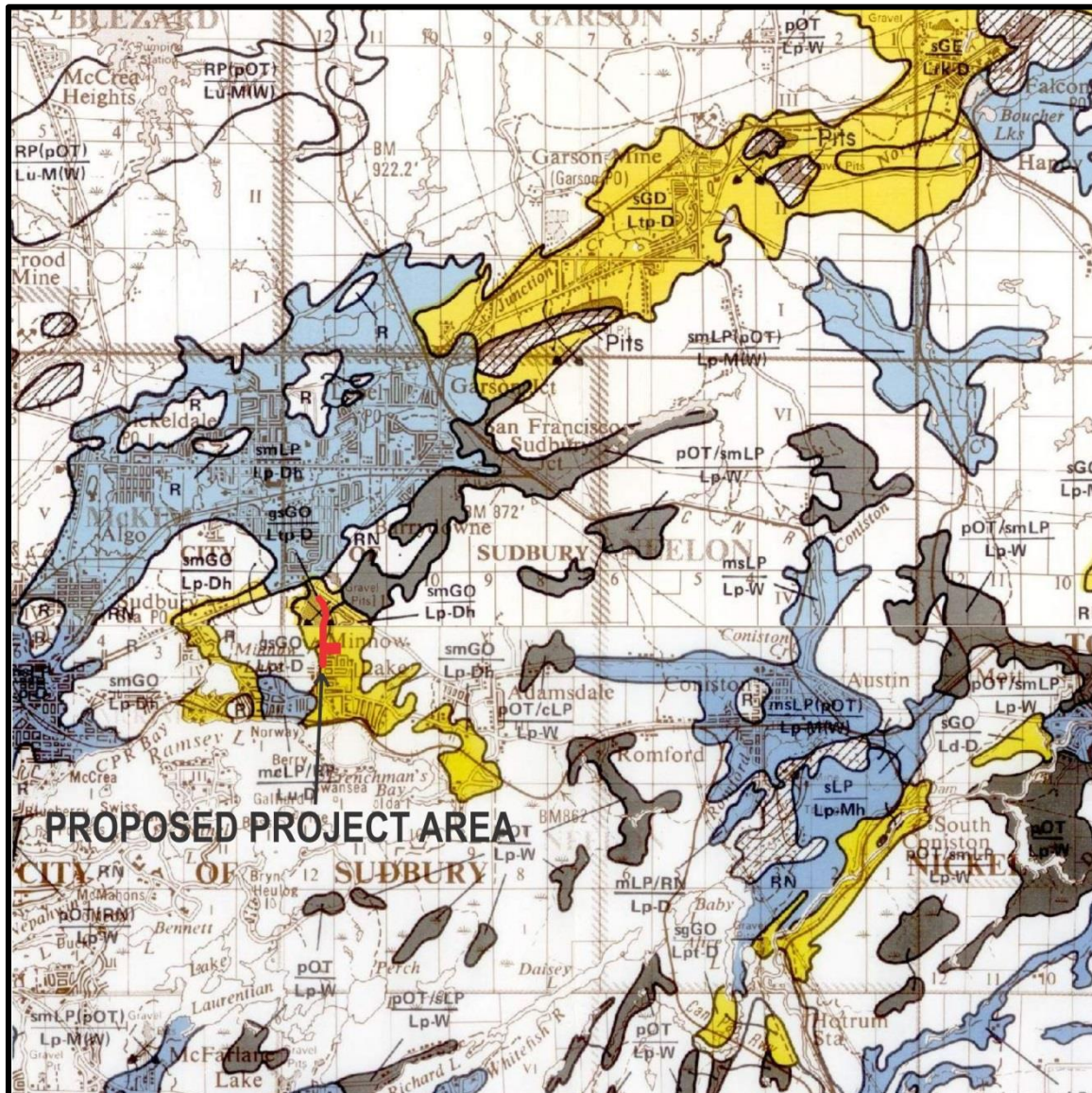
Map 1. Project location map showing the location of the project area.

An unmodified development plan was submitted to MTCS through PastPort as part of the report package.

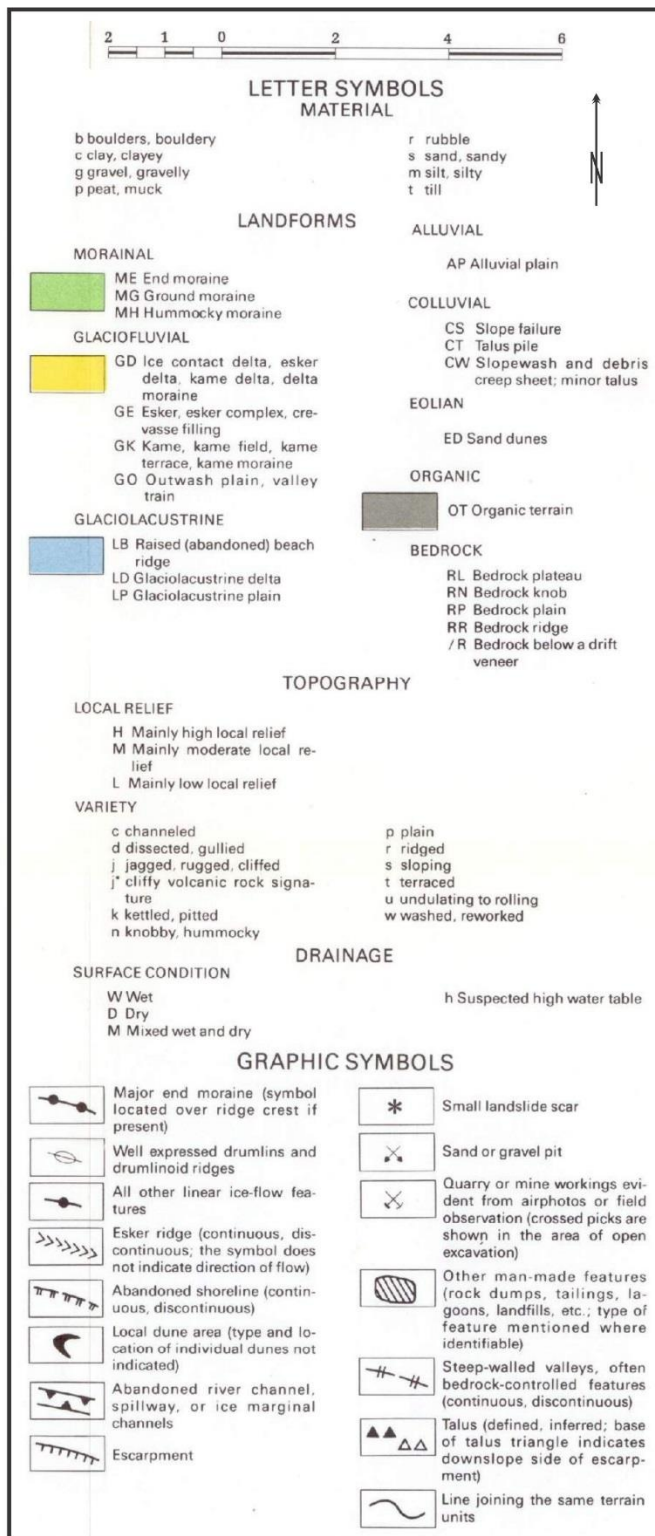
Map 2. Development plans for the proposed project area.



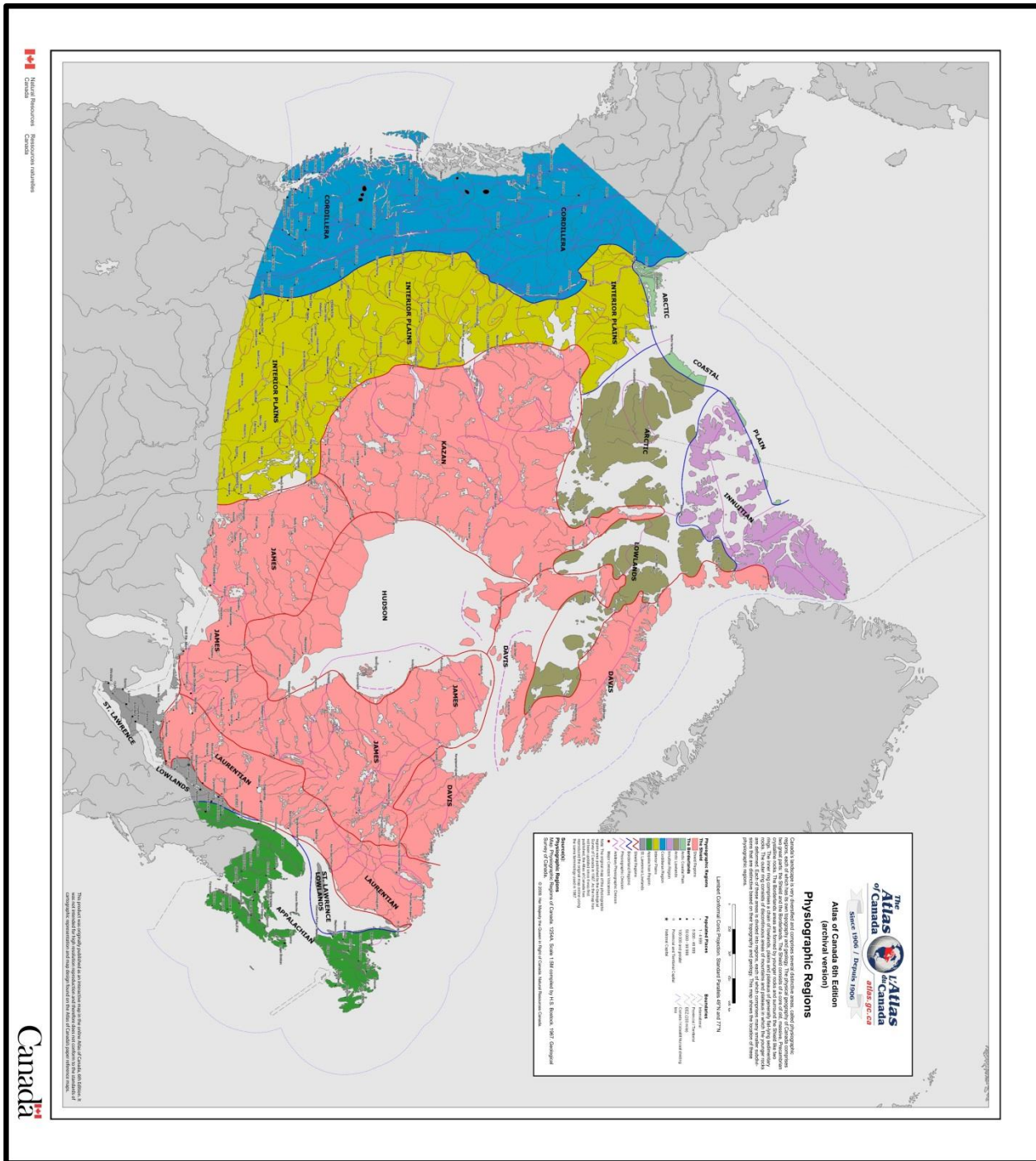
Stage 1 Archaeological Resource Assessment of the Second Avenue Road Widening Project, Neelon Township, City of Greater Sudbury, Sudbury District. MTCS PIF # P016-0408-2014.



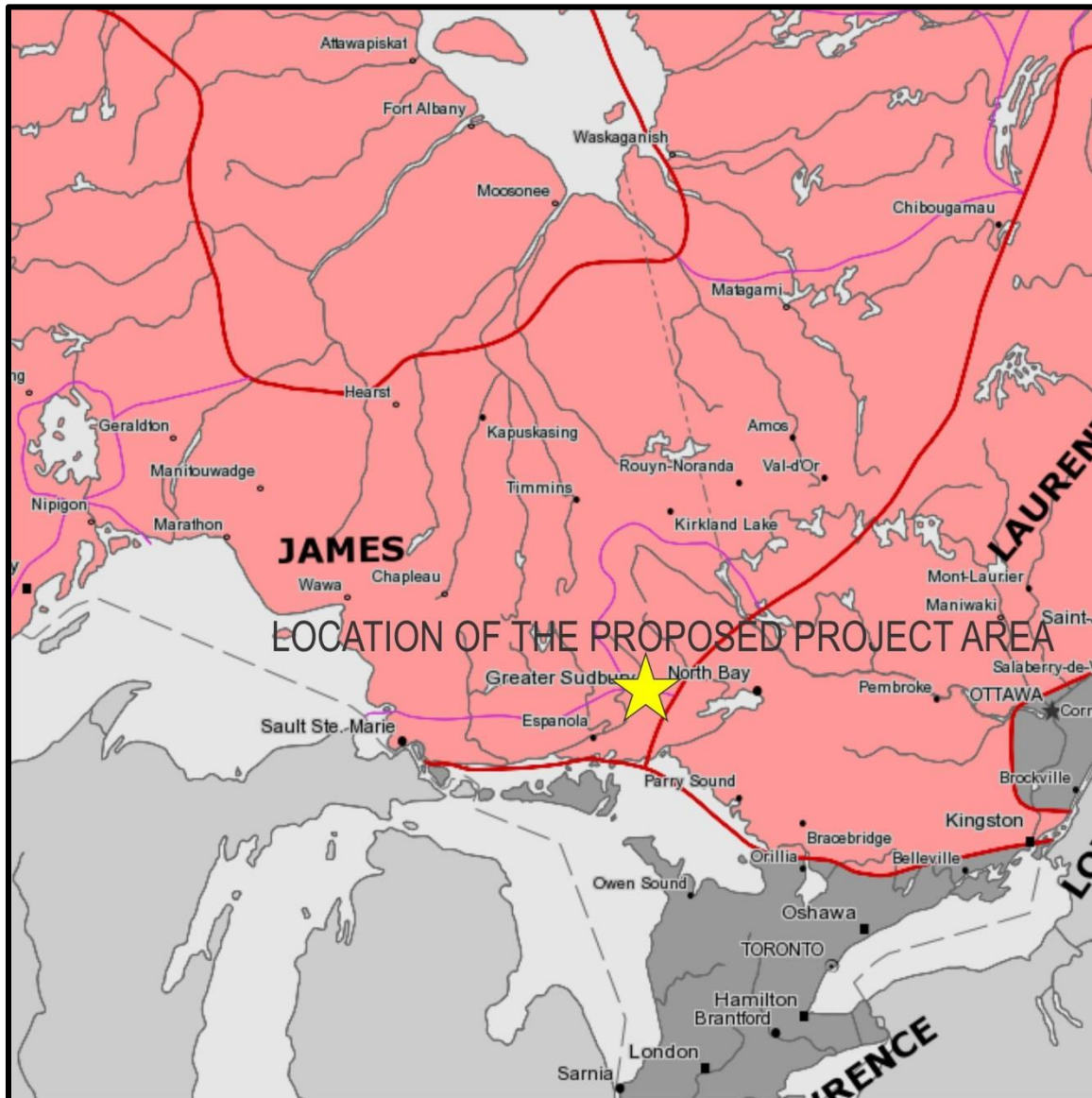
Map 3a. Northern Ontario Engineering Geology Terrain Study (NOEGTS) maps # 5001 and 5003 showing the surficial geology of the project area and the adjacent lands.



Map 3b. Legend for the previous map.



Map 4. Map of the physiographic regions of Canada (Bostock, 1967).



Map 5a. Physiographic map showing the proposed project area clearly located in the Canadian Shield (pink).



**Atlas of Canada 6th Edition
(archival version)**

Physiographic Regions

Canada's landscape is very diversified and comprises several distinctive areas, called physiographic regions, each of which has its own topography and geology. The physical geography of Canada comprises two great parts: the Shield and the Borderlands. The Shield consists of a core of old, massive, Precambrian crystalline rocks. The Borderlands areas are formed by younger rocks and surround the Shield like two rings. The inner ring comprises a chain of lowlands, plains and plateaus of generally flat-lying sedimentary rocks. The outer ring consists of discontinuous areas of mountains and plateaus in which the younger rocks are deformed. Each of these areas is divided into regions, each of which comprises many smaller subdivisions that are distinctive based on their topography and geology. This map shows the location of these physiographic regions.



Lambert Conformal Conic Projection. Standard Parallels 49°N and 77°N

Physiographic Regions

The Shield

Shield Regions

The Borderlands

Arctic Coastal Plain

Arctic Lowlands

Innuitian Region

Cordilleran Region

Interior Plains

Appalachian Region

St. Lawrence Lowlands

Shield Regions

Borderland Regions

Physiographic Division

Arbitrary Physiographic Division

Major Cenozoic Volcanoes

Populated Places

- 1 - 4 999
- 5 000 - 49 999
- 50 000 - 99 999
- 100 000 and greater
- Provincial and Territorial Capital
- ★ National Capital

Boundaries

- International
- Provincial / Territorial
- EEZ (200 mile)
- Canada / Kalaallit Nunaat dividing line

Note: The original map of the physiographic regions was published by the Geological Survey of Canada in 1967. As the map has not been updated since it was first published, the Atlas of Canada has reproduced the original map online using the same terminology used in 1967.

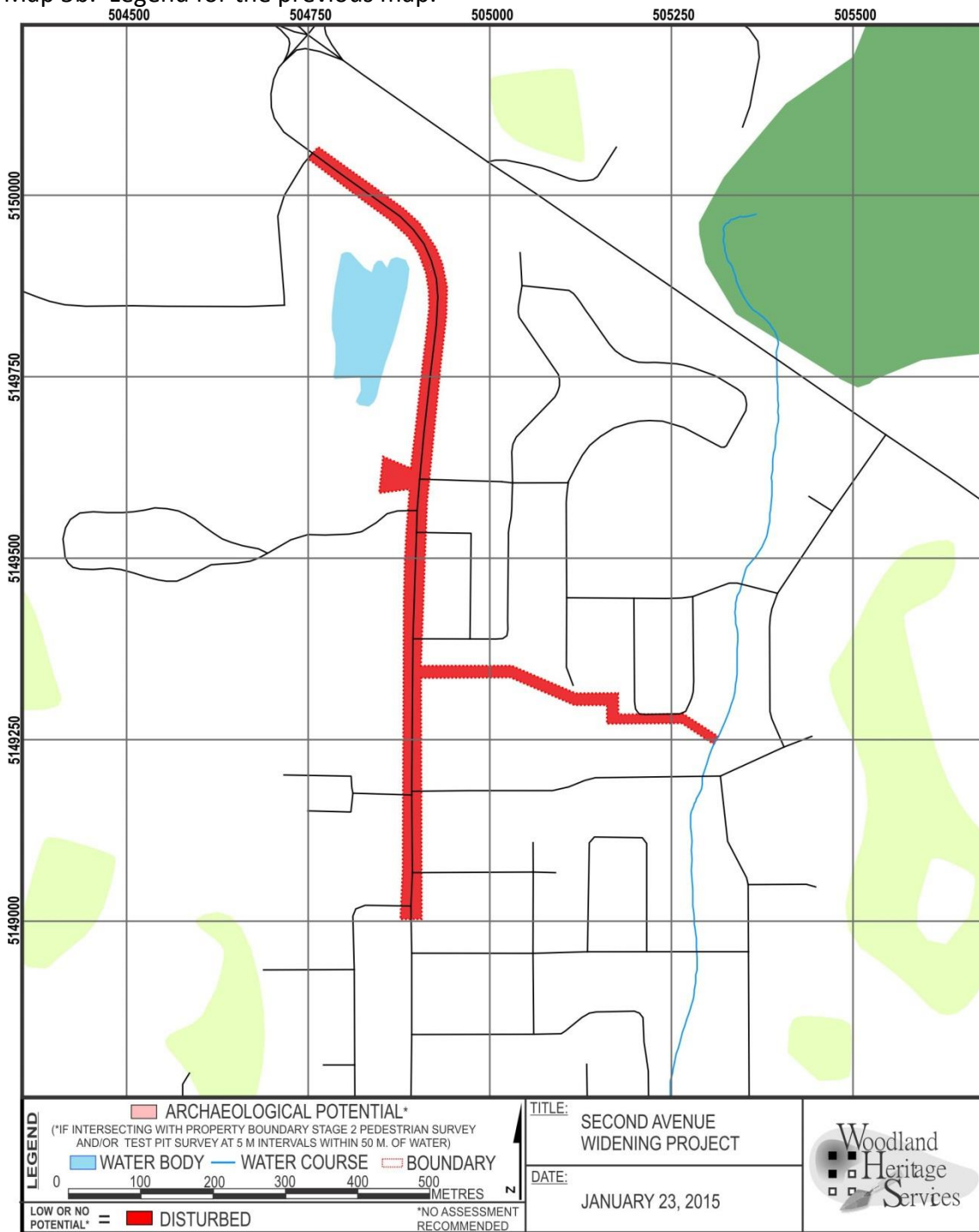
Source(s):

Physiographic Regions

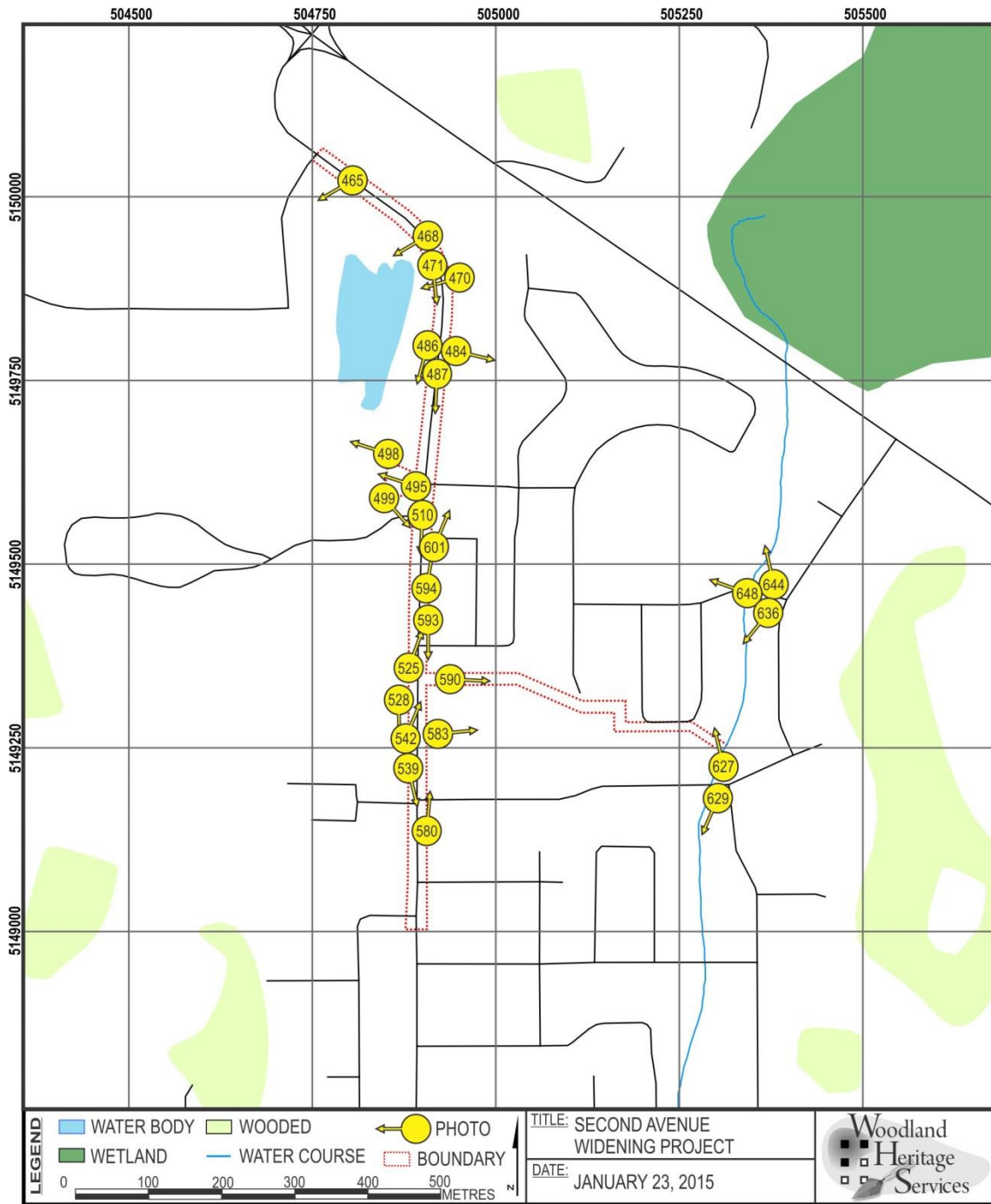
Map. Physiographic Regions of Canada. 1254A. Scale 1:5M compiled by H.S. Bostock. 1967. Geological Survey of Canada.

© 2009. Her Majesty the Queen in Right of Canada. Natural Resources Canada.

Map 5b. Legend for the previous map.



Map 6. Archaeological potential map showing the ground conditions affecting archaeological potential within the study area.



Map 7. Photograph location map showing the locations and directions of photographs used in this report.

5.0 IMAGES

Image 1. Photograph 465 showing a patch of exposed gravel in a disturbed field on the north end of the property. Note the mapped pond is not present.



Image 2. Photograph 468 showing some exposed bedrock on the north end of the property.



Image 3. Photograph 470 showing a raised mound on the west side of the road, a disturbance caused during the construction of the road.



Image 4. Photograph 471 showing the drainage contouring on the west side of the road.



Image 5. Photograph 486 showing a gravel snowplough turn around on the west side of Second Avenue.



Image 6. Photograph 487 showing the gravel shoulder and a disturbed drainage feature.



Image 7. Photograph 510 showing the contouring and a drainage ditch on the west side of Second Avenue.



Image 8. Photograph 539 showing the concrete sidewalk and a drainage ditch on the west side of Second Avenue.



Image 9. Photograph 542 showing the sidewalk, paved shoulder, and drainage ditch on the west side of Second Avenue.



Image 10. Photograph 495 showing a gravel road leading to a disturbed grassy field.



Image 11. Photograph 498 showing the disturbed gravel field with grassy vegetation on the west side of the road.



Image 12. Photograph 499 showing the side of a gravel road on the west side of Second Avenue.



Image 13. Photograph 525 showing the disturbed gravel shoulder of Second Avenue.



Image 14. Photograph 528 showing the shoulder, sidewalk, and manhole cover on the west side of the road.



Image 15. Photograph 580 showing the gravel shoulder on the east side of the road.



Image 16. Photograph 593 showing the gravel shoulder and asphalt sidewalk on the east side of the road.



Image 17. Photograph 594 showing the gravel shoulder on the east side of the road.



Image 18. Photograph 583 of the park on the east side of Second Avenue.



Image 19. Photograph 590 of the north end of the park, showing the contouring for drainage purposes.



Image 20. Photograph 601 showing the paved shoulder and the parking lot of a local business.



Image 21. Photograph 484 looking eastwards towards a local business on the east side of the road.



Image 22. Photograph 627 of the dry creek bed.



Image 23. Photograph 629 showing boulder-embedded concrete in the disturbed creek bed.



Image 24. Photograph 636 looking towards the creek.



Image 25. Photograph 644 showing cattails and other grasses growing in the seasonal creek bed.



Image 26. Photograph 648 of the location where the stream crosses Highgate Road to the north.

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