APPENDIX H

Archaeological Assessment
FINAL REPORT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT, PROPOSED WATERDOWN ROAD CORRIDOR OPTION, CITY OF HAMILTON, ONTARIO

Submitted to: The City of Hamilton

NOVEMBER 18, 2008

PROJECT NO. 1037892
November 18, 2008

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EXECUTIVE SUMMARY

A Stage 1 Archaeological Assessment was completed for undeveloped lands between Dundas Street and Mountain Brow Road, west of Waterdown Road and lands along both sides of Waterdown Road between Mountain Brow Road and Highway 403, in the City of Hamilton and in the City of Burlington, Ontario. The Stage 1 Archaeological Assessment included a review of archival material and a site reconnaissance. Based on the presence of attractive landscape features for prehistoric period habitation, such as access to navigable watercourses and potable water as well as a number of registered prehistoric period archaeological sites in the vicinity, the project area has elevated potential for undiscovered prehistoric period archaeological resources. Furthermore, archival research suggests elevated potential for historic period archaeological resources. Areas having elevated potential for undiscovered archaeological resources may require Stage 2 Archaeological Assessment, depending upon final project design.
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1.0 INTRODUCTION

The City of Hamilton (the City) and its partners the City of Burlington and Regional Municipality of Halton have proposed to make improvements, including widening, to Waterdown Road between Highway 403 and Mountain Brow Road, in the City of Hamilton and the City of Burlington, Ontario (Figure 1.1). In addition to widening of the existing roadway, a new roadway connecting Dundas Street to Waterdown Road via Mountain Brow Road has been proposed. As part of the Environmental Assessment process the City required completion of a Stage 1 Archaeological Assessment of the proposed project area which includes land along both sides of the existing roadway and undeveloped land between Dundas Street and Mountain Brow Road. Under the existing Consultant Services Roster agreement, the City retained Jacques Whitford Limited (Jacques Whitford) to complete a Stage 1 Archaeological Assessment of the project area. The study was completed by Christie Uchiyama, B.A., Assistant Archaeologist with Jacques Whitford. Colin Varley, M.A., R.P.A., Senior Archaeologist and Heritage Planner acted as project director and senior reviewer.

2.0 PROJECT AREA

The project area is composed of land along both sides of Waterdown Road between Highway 403 and Dundas Street in the former Village of Waterdown as well as land to the east of Waterdown Road between Mountain Brow Road and Dundas Street (Figure 2.1). The property encompasses parts of Lots 6 and 7 in Concessions 1, 2 and 3 of East Flamborough Township. Land use in the project area is presently a mix of agricultural and residential.

Spring Creek runs through the project area south of Dundas Street. The creek flows west towards Grindstone Creek joining the larger creek before crossing under Waterdown Road at which point it flows over Grindstone Falls at the edge of the Niagara Escarpment and then runs south, emptying into Lake Ontario. Grindstone Creek meets the project area briefly, on the west side of Waterdown Road, north of Mountain Brow Road (Figures 1.1 and 2.1). Grierson Creek runs almost parallel to the project area approximately 350 m west of Waterdown Road (Figures 1.1 and 2.1).

The project area is situated on the margin between the Niagara Escarpment and Norfolk Sand Plain physiographic regions, in a small series of till moraines and spillways. The northernmost portion of the project area lies directly within a spillway that runs toward Grindstone Falls which demarcate the southernmost extent of the spillway and the beginning of the Niagara Escarpment (Chapman and Putnam, 1984). The surficial geology of the project area above the escarpment is composed mainly of Grimsby Sandy Loam soil, a well drained soil of fine and medium sand. The sandy loam is interrupted by Grindstone Creek and by a ridge of Oneida Loam northeast of Grindstone Falls. Oneida Loams are generally well drained clay loams, often associated with fruit trees (Present et al., 1965) (Figure 2.2). In the project area in general, the topography is quite hilly, including numerous knolls and steep rock faces into which the rivers have cut. Chinguacousy Loam, a poorly draining soil, occurs in the project area along the edge of the escarpment (Present et al., 1965).
Figure 2.2 - Soil Types In and Near the Project Area
(Source: Presant et al., 1965)
3.0 STAGE 1 ASSESSMENT

3.1 EXISTING CONDITIONS

The assessment of archaeological potential for the site considered both prehistoric and historic period resources. Archaeological potential modeling for prehistoric era sites is based largely on the identification of landscape features which are either known to have attracted past habitation or land use, or which appear to have potential for attracting human use. These features include: navigable rivers and lakes; confluences of watercourses; smaller sources of potable water; ridges or knolls that overlook areas of resource potential; outcrops of high-quality stone for tool making; and, most importantly, combinations of these features. In general it has been demonstrated that areas within 200-300 m of watercourses, or other significant bodies of water (ASI, 1990; Cox, 1989), and in particular those areas with multiple water sources (Young et al., 1995), are considered to be of elevated archaeological potential.

Patterns of land use by historic Euro-Canadians to some extent mirror those of the prehistoric period. This is not surprising, since the same general needs must be met, i.e., proximity to potable water, access to natural resources, and a level, well drained habitation site. On the other hand, the Euro-Canadian conversion of both fertile and more marginal land for agricultural purposes, the development of non-water travel routes, the exploitation of different resources such as subsurface mineral deposits, and other differences in land use patterns make potential modeling of Euro-Canadian and other non-Aboriginal historic sites somewhat less reliable. Fortunately, these sites are more visible than their prehistoric counterparts, which helps offset this lower level of predictive reliability.

With well-drained soils, access to several watercourses, and a prominent vantage point at the Niagara Escarpment, the project area demonstrates many of the preferred landscape features associated with the presence of archaeological sites.

3.2 ARCHAEOLOGICAL CULTURE HISTORY OF SOUTHERN ONTARIO

The following summary of the prehistoric occupation of Southern Ontario (see Table 3.1 for chronological chart) is based on syntheses in Archaeologix (2008), Ellis and Ferris (1990) and Jacques Whitford (2008).

The first identified human occupation of Ontario begins just after the end of the Wisconsin Glacial period. The first human settlement can be traced back 11,000 years, when this area was settled by Native groups that had been living to the south of the emerging Great Lakes. This initial occupation is referred to as the "Palaeo-Indian" archaeological culture.

Early Palaeo-Indian (EPI) (11,000-10,400 BP) settlement patterns suggest that small groups, or "bands", followed a pattern of seasonal mobility extending over large territories. Many (although by no means all) of the EPI sites were located on former beach ridges associated with Lake Algonquin, the post-glacial lake occupying the Lake Huron/Georgian Bay basin, and it is likely that the vegetative cover of these areas would have consisted of open spruce parkland, given the cool climatic conditions. Sites tend to be located on well-drained loamy soils, and on elevations in the landscape, such as knolls. The fact that artifact assemblages of EPI sites are composed exclusively of stone, skews our understanding of the general patterns of resource extraction and use. However, the taking of large game, such as
caribou, mastodon and mammoth, appears to be of central importance to the sustenance of these early inhabitants. Moreover, EPI site location often appears to be located in areas which would have intersected with migratory caribou herds.

Table 3.1 - Southern Ontario Prehistoric Cultural Chronology, Years Before Present (BP)

<table>
<thead>
<tr>
<th>ARCHAEOLOGICAL PERIOD</th>
<th>TIME</th>
<th>CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Paleo-Indian</td>
<td>11,000–10,400 BP</td>
<td>Caribou and extinct Pleistocene mammal hunters, small camps.</td>
</tr>
<tr>
<td>Late Paleo-Indian</td>
<td>10,400–10,000 BP</td>
<td>Smaller but more numerous sites.</td>
</tr>
<tr>
<td>Early Archaic</td>
<td>10,000–8,000 BP</td>
<td>Slow population growth, emergence of woodworking industry, development of specialised tools.</td>
</tr>
<tr>
<td>Middle Archaic</td>
<td>8,000–4,500 BP</td>
<td>Environment similar to present, fishing becomes important component of subsistence, wide trade networks for exotic goods.</td>
</tr>
<tr>
<td>Late Archaic</td>
<td>4,500–3,100 BP</td>
<td>Increasing site size, large chipped lithic tools, introduction of bow hunting.</td>
</tr>
<tr>
<td>Terminal Archaic</td>
<td>3,100–2,950 BP</td>
<td>Emergence of true cemeteries with inclusion of exotic trade goods.</td>
</tr>
<tr>
<td>Early Woodland</td>
<td>2,950–2,400 BP</td>
<td>Introduction of pottery, continuation of Terminal Archaic settlement and subsistence patterns.</td>
</tr>
<tr>
<td>Middle Woodland</td>
<td>2,400–1,400 BP</td>
<td>Increased sedentism, larger settlements in spring and summer, dispersed smaller settlement in fall and winter, some elaborate mortuary ceremonialism.</td>
</tr>
<tr>
<td>Transitional Woodland</td>
<td>1,400–1,100 BP</td>
<td>Incipient agriculture in some locations, seasonal hunting &amp; gathering.</td>
</tr>
<tr>
<td>Late Woodland (Early Iroquoian)</td>
<td>1,100–700 BP</td>
<td>Limited agriculture, development of small village settlement, small communal longhouses.</td>
</tr>
<tr>
<td>Late Woodland (Middle Iroquoian)</td>
<td>700–600 BP</td>
<td>Shift to agriculture as major component of subsistence, larger villages with large longhouses, increasing political complexity.</td>
</tr>
<tr>
<td>Late Woodland (Late Iroquoian)</td>
<td>600–350 BP</td>
<td>Very large villages with smaller houses, politically allied regional populations, increasing trading network.</td>
</tr>
</tbody>
</table>

The Late Palaeo-Indian (LPI) period (10,400-10,000 BP) is poorly understood compared to the EPI, the result of less research focus than the EPI. As the climate warmed the spruce parkland was gradually replaced and the vegetation of Southern Ontario began to be dominated by closed coniferous forests. As a result many of the large game species that had been hunted in the EPI period either moved north with the more open vegetation, or became extinct. Like the EPI, LPI peoples covered large territories as they moved around to exploit different resources.

The transition from the Palaeo-Indian period to the Archaic archaeological culture of Ontario prehistory is evidenced in the archaeological record by the development of new tool technologies, the result of utilising an increasing number of resources as compared to peoples from earlier archaeological cultures, and developing a broader based series of tools to more intensively exploit those resources. During the Early Archaic period (10,000-8,000 BP), the jack and red pine forests that characterized the LPI environment were replaced by forests dominated by white pine with some associated deciduous elements. Early Archaic projectile points differ from Palaeo-Indian forms most notably by the presence of side and corner notching on their bases. A ground stone tool industry, including celts and axes, also emerges, indicating that woodworking was an important component of the technological development of Archaic peoples. Although there may have been some reduction in the degree of seasonal movement, it is still likely that population density during the Early Archaic was low, and band territories large.
The development of a more diversified tool technology continued into the Middle Archaic period (8,000-4,500 BP). The presence of grooved stone net-sinkers suggests an increase in the importance of fishing in subsistence activities. Another new tool, the bannerstone, also made its first appearance during this period. Bannerstones are ground stone weights that served as a counterbalance for "atlatls" or spear-throwers, again indicating the emergence of a new technology. The increased reliance on local, often poor quality chert resources for chipped stone tools suggests that in the Middle Archaic groups inhabited smaller territories that often did not encompass a source of high quality raw material. In these instances lower quality materials which had been glacially deposited in local tills and river gravels were used.

This reduction in territory size appears to have been the result of gradual region-wide population growth, which forced a reorganization of subsistence practices, as more people had to be supported from the resources of a smaller area. Stone tools especially designed for the preparation of wild plant foods suggest that subsistence catchment was being widened and new resources being more intensively exploited. A major development of the later part of the Middle Archaic period was the initiation of long distance trade. In particular, native copper tools manufactured from sources near Lake Superior were being widely traded.

The trend towards decreased territory size and a broadening subsistence base continued during the Late Archaic (4,500-2,900 BP). Late Archaic sites are far more numerous than either Early or Middle Archaic sites. It appears that the increase in numbers of sites at least partly represents an increase in population. However, around 4,500 BP water levels in the Great Lakes began to take their modern form, rising from lower levels in the Early and Middle Archaic periods. It is likely that the relative paucity of earlier Archaic sites is due to their being inundated under the rising lake levels.

The appearance of the first true cemeteries occurs during the Late Archaic. Prior to this period, individuals were interred close to the location where they died. However, with the advent of the Late Archaic and local cemeteries individuals who died at a distance from the cemetery would be returned for final burial at the group cemetery, often resulting in disarticulated skeletons, occasionally missing minor bone elements (e.g. finger bones). The emergence of local group cemeteries has been interpreted as being a response to both increased population densities and competition between local groups for access to resources, in that cemeteries would have provided symbolic claims over a local territory and its resources.

Increased territoriality and more limited movement are also consistent with the development of distinct local styles of projectile points. The trade networks which began in the Middle Archaic expand during this period, and begin to include marine shell artifacts (such as beads and gorgets) from as far away as the Mid-Atlantic coast. These marine shell artifacts and native copper implements show up as grave goods, indicating the value of the items. Other artifacts such as polished stone pipes and slate gorgets also appear on Late Archaic sites. One of the more unusual of the Late Archaic artifacts is the "birdstone", small, bird-like effigies usually manufactured from green banded slate.

The Early Woodland period (2,900-2,200 BP) is distinguished from the Late Archaic period primarily by the addition of ceramic technology. While the introduction of pottery provides a useful demarcation point for archaeologists, it may have made less difference in the lives of the Early Woodland peoples. The first pots were very crudely constructed, thick walled, and friable. It has been suggested that they were used in the processing of nut oils by boiling crushed nut fragments in water and skimming off the oil. These vessels were not easily portable, and individual pots must not have enjoyed a long use life.
There have also been numerous Early Woodland sites located at which no pottery was found, suggesting that these poorly constructed, undecorated vessels had yet to assume a central position in the day-to-day lives of Early Woodland peoples.

Other than the introduction of this rather limited ceramic technology, the life-ways of Early Woodland peoples show a great deal of continuity with the preceding Late Archaic period. For instance, birdstones continue to be manufactured, although the Early Woodland varieties have "pop-eyes" which protrude from the sides of their heads. Likewise, the thin, well-made projectile points which were produced during the terminal part of the Archaic period continue in use. However, the Early Woodland variants were side-notched rather than corner-notched, giving them a slightly altered and distinctive appearance. The trade networks which were established in the Middle and Late Archaic also continued to function, although there does not appear to have been as much traffic in marine shell during the Early Woodland period. These trade items were included in increasingly sophisticated burial ceremonies, some of which involved construction of burial mounds.

In terms of settlement and subsistence patterns, the Middle Woodland (2,200 B.C.-1,100 BP) provides a major point of departure from the Archaic and Early Woodland periods. While Middle Woodland peoples still relied on hunting and gathering to meet their subsistence requirements, fish were becoming an even more important part of the diet. Middle Woodland vessels are often heavily decorated with hastily impressed designs covering the entire exterior surface and upper portion of the vessel interior. Consequently, even very small fragments of Middle Woodland vessels are easily identifiable.

It is also at the beginning of the Middle Woodland period that rich, densely occupied sites appear along the margins of major rivers and lakes. While these areas had been utilized by earlier peoples, Middle Woodland sites are significantly different in that the same location was occupied off and on for as long as several hundred years. Because this is the case, rich deposits of artifacts often accumulated. Unlike earlier seasonally utilized locations, these Middle Woodland sites appear to have functioned as base camps, occupied off and on over the course of the year. There are also numerous small upland Middle Woodland sites, many of which can be interpreted as special purpose camps from which localized resource patches were exploited. This shift towards a greater degree of sedentism continues the trend witnessed from at least Middle Archaic times, and provides a prelude to the developments that follow during the Late Woodland period.

The relatively brief period of the Transitional Woodland period is marked by the acquisition of cultivar plants species, such as maize and squash, from communities living south of the Great Lakes. The appearance of these plants began a transition to food production, which consequently led to a much reduced need to acquire naturally occurring food resources. Sites were thus occupied for longer periods and by larger numbers of people. Sites of the Transitional Woodland in the Hamilton area are part of the Princess Point Complex, named after the Princess Point site in Cootes Paradise.

The Late Woodland period in southern Ontario is associated with societies referred to as the Ontario Iroquois Tradition. This period is often divided into three temporal components; Early, Middle and Late Iroquoian (see Table 3.1).

Early Iroquoian peoples continued to practice similar subsistence and settlement patterns as the Transitional Woodland. Villages tended to be small, with small longhouse dwellings that housed either nuclear or, with increasingly, extended families. Smaller camps and hamlets associated with villages
served as temporary bases from which wild plant and game resources were acquired. Horticulture appears to have been for the most part a supplement to wild foods, rather than a staple.

The Middle Iroquoian period marks the point at which a fully developed horticultural system (based on corn, bean, and squash) emerged, and at which point cultivars became the staple food source. In this period villages become much larger than in the Early Iroquoian period, and longhouses also become much larger, housing multiple, though related, nuclear families. Food production through horticulture resulted in the abandonment of seasonal mobility that had characterized aboriginal life for millennia. Hunting, fishing, and gathering of wild food activities continued to occur at satellite camps. However, for the most part most Iroquoian people inhabited large, sometimes fortified villages throughout southern Ontario.

The Late Iroquoian period in the Niagara Peninsula, along the north shore of Lake Erie and at the western end of Lake Ontario is marked by the emergence of the Neutral Iroquoians, one of several discrete groups that emerge from the Middle Iroquoian period. Neutral settlements include large villages of several longhouses and a number of associated smaller satellite villages (hamlets), seasonally occupied sites with only one or two small “cabins” (usually associated with working horticultural fields), and camps for specialized extractive activities such as hunting and fishing.

Discrete clusters of politically allied Neutral villages have been identified from the late prehistoric and early historic period, and in the case of the Waterdown Road Corridor project area the closest of these is the Spencer-Bronte Creeks group. This cluster of villages and associated sites is located west of the project area and is focused on land near the headwaters of Spencer Creek and Bronte Creek.

### 3.3 PREHISTORIC PERIOD RESOURCES

There are at present fifty-six (56) registered Prehistoric period archaeological sites located within a 1 km radius of the project area (MoC, 2008) (Table 3.2). The majority of the sites were identified during previous surveys of parts of Lots 4 and 5, Concession 3 prior to the construction of late 20th century subdivisions.

Only three (3) of the sites (AhGx 284, AhGx 361 and AhGx 362) are located south of Concession 3. Both AhGx 361 and AhGx 362 are located within the undeveloped lands at the northeast corner of the intersection of Waterdown Road and North Service Road (Figure 2.1). The topography of the field is relatively flat, unlike the majority of registered sites in the vicinity which occur on sandy knolls. Both AhGx 361 and AhGx 362 are findspots. AhGx 284 is, likewise, a findspot associated with a survey along a transmission corridor intersecting Waterdown Road between North Service Road and Mountain Brow Road.

Sites within Lots 4 and 5, Concession 3 (and the surrounding area) are generally associated with knolls of well drained, sandy soils situated in areas of low, imperfectly drained soils. The majority of these sites and findspots are located near Grindstone Creek and its tributaries. Based on landscape features, the paucity of sites south of Concession 3 suggests a lack of previous survey within the project area, rather than low archaeological potential.

The majority of registered sites in the project area are findspots or widely distributed lithic scatter. Higher concentrations of artifacts were identified along Spring Creek, which flows through the project area south of Dundas Street as well as several knolls in fields west of Evans Road, between Dundas Street and Parkside Drive.
The distribution of registered sites indicates a pattern of general land use across the landscape, although much of this would have been very short term (e.g., brief tool re-sharpening episodes). Sites from both the Archaic and Woodland periods are represented in the pattern of generalised land usage.

There is evidence indicating that the project area and surrounding landscape were of vital importance to post-contact Native groups in terms of transportation. A survey map attributed to Augustus Jones, dating to 1791, indicates that the lands east of Flamborough were still Mississauga lands prior to the construction of the Dundas Road (Figure 3.1). Another survey map from the late 18th century indicates a Road to the Mohawk Village extended west from the south coast of Burlington Bay, directly opposite the project area (Figure 3.2). The map also indicates that the area to the north of Flamborough was Mississauga Land and that a Road to the River la Tranche travelled from the westernmost tip of Cootes Paradise towards the west (Figure 3.2). Fairchild Creek, a tributary of La Tranche (Grand River), is the centre of the Fairchild-Big cluster of Neutral Sites. The Spencer-Bronte cluster of Neutral sites, to which the project area is most closely associated, is believed to have closely followed present-day Snake Road, just west of Grindstone Creek, as a pathway across the escarpment when travelling to and from their hunting ground (Woods et al., 1967).

Table 3.2 - Registered Prehistoric Period Sites In and Near the Project Area

<table>
<thead>
<tr>
<th>Period</th>
<th>Number of Sites With Components</th>
<th>Borden #s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archaic</td>
<td>31</td>
<td>AhGx 361, AiGx 82, AiGx 86, AiGx 87, AiGx 94 and below</td>
</tr>
<tr>
<td>Early Archaic</td>
<td>13</td>
<td>AiGx 309, AiGx 311, AiGx 313, AiGx 318, AiGx 322, AiGx 323, AiGx 327, AiGx 328, AiGx 330, AiGx 332, AiGx 335, AiGx 337, AiGx 341</td>
</tr>
<tr>
<td>Middle Archaic</td>
<td>9</td>
<td>AiGx 83, AiGx 304, AiGx 308, AiGx 324, AiGx 325, AiGx 328, AiGx 333, AiGx 334, AiGx 352</td>
</tr>
<tr>
<td>Late Archaic</td>
<td>7</td>
<td>AiGx 80, AiGx 93, AiGx 301, AiGx 304, AiGx 307, AiGx 339, AiGx 352</td>
</tr>
<tr>
<td>Woodland</td>
<td>6</td>
<td>see below</td>
</tr>
<tr>
<td>Early Woodland</td>
<td>0</td>
<td>AiGx 84</td>
</tr>
<tr>
<td>Middle Woodland</td>
<td>1</td>
<td>AiGx 84</td>
</tr>
<tr>
<td>Late Woodland</td>
<td>5</td>
<td>AiGx 79, AiGx 81, AiGx 319, AiGx 325, AiGx 342</td>
</tr>
<tr>
<td>Undetermined</td>
<td>20</td>
<td>AhGx 284, AhGx 362, AhGx 612, AhGx 613, AiGx 85, AiGx 88, AiGx 92, AiGx 164, AiGx 165, AiGx 166, AiGx 302, AiGx 305, AiGx 310, AiGx 312, AiGx 314, AiGx 315, AiGx 326, AiGx 329, AiGx 331, AiGx 351</td>
</tr>
<tr>
<td>Total Prehistoric Period Sites*</td>
<td>56</td>
<td></td>
</tr>
</tbody>
</table>

*Sites containing components of two or more periods may appear more than once in the table, but appear only once in the total.
Figure 3.1 - 1791 Map of East Flamborough
Figure 3.2 - Late 18th Century Map of Wentworth
The physiography of the project area, as discussed above, demonstrates a number of landscape features attractive to prehistoric occupation. A large field along the north side of Flatt Road, approximately 2 km south of Mountain Brow Road (Figure 3.3) include knolls overlooking Grindstone Creek to the west and a ravine to the east. This same field provides a relatively clear line of sight south towards Lake Ontario. Undeveloped land between Mountain Brow Road and Dundas Street includes similar attractive landscape features (Figure 3.3).

3.4 HISTORIC PERIOD RESOURCES

There are at present no registered historic period archaeological sites within 1 km of the project area. There are three Ontario Heritage Easements in the vicinity of the project area; the Former Waterdown Post Office, the Former East Flamborough Township Hall and the Pearson Home. Several buildings in the project area appear on the City of Burlington’s Heritage Properties Database and the Hamilton Inventory of Buildings of Architectural and/or Historic Interest (Table 3.3). Although not officially designated, the project area is surrounded by buildings of historical interest located on both sides of Waterdown Road and Dundas Street (City of Hamilton, 2002, City of Burlington, 2008). The Waterdown Union Cemetery, dating back to 1830, lies approximately 100 m northwest of the project area (City of Hamilton, 2005).

Table 3.3 - Buildings of Architectural and/or Heritage Interest In and Near Project Area (Hamilton and Burlington)

<table>
<thead>
<tr>
<th>Address</th>
<th>Name</th>
<th>Type of Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>38 Mountain Brow Road</td>
<td></td>
<td>Residential</td>
</tr>
<tr>
<td>120 Mountain Brow Road</td>
<td></td>
<td>Residential</td>
</tr>
<tr>
<td>352 Mountain Brow Road</td>
<td></td>
<td>Residential</td>
</tr>
<tr>
<td>1917 Waterdown Road</td>
<td></td>
<td>Residential</td>
</tr>
<tr>
<td>1835 Waterdown Road</td>
<td>The McMeonies House</td>
<td>Residential</td>
</tr>
<tr>
<td>1831 Waterdown Road</td>
<td></td>
<td>Residential</td>
</tr>
<tr>
<td>1390 Waterdown Road</td>
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<td>Residential</td>
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<td>1350 Waterdown Road</td>
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<td>1018 Waterdown Road</td>
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</tr>
<tr>
<td>59 Horning Road</td>
<td></td>
<td>Residential</td>
</tr>
<tr>
<td>48 Flatt Road</td>
<td>The Taylor House</td>
<td>Residential</td>
</tr>
</tbody>
</table>
Figure 3.3 - Topographic Map Showing Undeveloped Land In the Project Area
The project area was first surveyed by Augustus Jones in 1793 in order to begin construction of the Dundas Road, a military route between Dundas and York. The strategic importance of the road ensured that, immediately following the clearing of wilderness along the route, efforts were made to settle the land along the road. The Township was laid out with 13 concessions, each with 13 lots. In 1796, two years before Augustus Jones had officially completed his survey of the Township, the crown began granting lots to former Loyalist soldiers for their services in the American Revolution (Woods et al., 1967). The clearing of land proved slow and difficult and although more than two thirds of the land below the 10th Concession had been granted by 1801, most grantees chose not to take up their grants and did not settle in the area (Wood et al., 1967). In 1797 a map of Flamborough was created which indicates not only crown lands and clergy reserves, but also the original United Empire Loyalist soldiers to whom the lots were granted (Figure 3.4).

Lots 6 and 7 along Concession 3 were originally granted in 1796 to Lt. Alexander McDonnell, who sold his lots to Alexander Brown sometime before 1800. The land remained undeveloped until 1805; when Alexander Brown is credited with building the first sawmill (Wray and Green, 1994). The mill was located above the Great Falls (Grindstone Falls) in the north end of the project area. The 1815 Map by Nesfield illustrates that although a number of roads had been forced through at the time, the project area was generally void of other built landmarks (Figure 3.5).

Attracted by the potential of Grindstone Creek, Ebenezer Griffin purchased Lot 7, Concession 3 from Alexander Brown in 1823 and continued purchasing land in Lot 6, Concession 3 in the following decade (Woods et al., 1967). By 1831, Ebenezer Griffin had divided up his land and begun selling smaller lots, thus creating the downtown district of Waterdown (Wray and Green, 1994). Slowly the population began to increase along Grindstone Creek, powered by sawmills, woolen mills and flour and grist mills (Wray and Green, 1994).

Waterdown is featured on an 1839 sketch of the Dundas Road from Toronto to Hamilton and Ancaster by Philip John Bainbrigge, an officer in the Royal Engineers. Bainbrigge sketched the map in his diary and while he only sketched features concerned with military activities he did describe the area of Waterdown as well-cleared and thickly inhabited by a superior class of settlers (Bainbrigge, 1839). The diary entry also indicates that there were sufficient resources and buildings in Waterdown for the billeting (lodging) of 200 men and 35 horses (Figure 3.6). The 1840 census undertaken in Waterdown indicates that the population had grown to 165.

Major de Rottenburg’s 1850 Map indicates the Waterdown Post Office and a mill located northwest of the intersection of Waterdown Road and Grindstone Creek as well as two Inns (Figure 3.7). One of the Inns is marked in the centre of Waterdown Road near the north end of Concession 1. The other inn, labeled Andersons Inn, is located in the vicinity of the intersection of Grindstone Creek and Waterdown Road. This is likely the present-day American Hotel, believed to have been built around 1824 (Wray and Green, 1993). The Rottenburg map includes the billeting capacity above town names, suggesting a figure of 160 men and 30 horses for Waterdown, compared to 200 men and 35 horses suggested by Bainbrigge in 1839.

A number of farms developed south of Grindstone Falls. By the 1851 Census there was developed farmland in every lot of the project area. According to the census, of the 1200 acres in Lots 6 and 7 of Concessions 1 through 3, only 146 acres remained wild and/or wooded. The majority of uncultivated land lay in Concessions 2 and 3 and is likely a factor of the slope of the escarpment. Lot 6, Concession 1 was farmed by Alex White (55 acres) and by J. Applegarth, who owned a total of 619 acres in Lots 6, 7, 8, and 9 of Concessions 1, 2 and 3. Lot 6, Concession 2 was partially owned by William Wilson (35
Figure 3.4 - Detail of 1797 Map of Flamborough
Figure 3.5 - General Location of Project Area on 1815 Nesfield Map
The road over the Mountain is steep but not dangerous. Dundas Street rises into a high level country for 35 miles, well cleared. Not inhabited by a superior class of settlers, the road is very good, but is crossed by 2 rivers 160 ft. deep (at 20 x 32 miles), where it is steep & narrow.

The road along the Lake is sandy, and the carrying are still not difficult; it passes through a pleasant country, but thinly inhabited.
Figure 3.7 - Project Area on ca. 1850 Rottenburg Map
acres). Lot 7, Concession 2 was partially owned by Thomas Hamond (100 acres). There are 5 entries in the census for land owners in Lots 6 and 7, Concession 3 (William Greirson, Jonathan Graham, Read Baker, Captain F. Fields and F. Graham).

The 1859 Surtees map indicates that much of the farm land surrounding the village centre belonged to the *heirs* or the *estate* of the former land owner (Figure 3.8). The 1859 map does not include any structures below Grindstone Falls.

In the years following 1859, large parcels of land once controlled by single owners were sold in smaller sections. The 1875 Atlas indicates buildings in many of the lots south of the village centre (Figure 3.9). Lot 6, Concession 1 remained Alexander Brown’s property, however, the railway intersecting the south half of the lot had become the Grand Trunk Railway and the Aldershot Post Office and Brick Yard lay just south of the project area. Buildings within the project area can be seen in Figure 3.9. The 1875 atlas indicates a house below the escarpment in Lot 6, Concession 2, belonging to H. Carson. William Horning’s house and orchard is located in Lot 7, Concession 2. A house belonging to F. Rose is situated south of Mountain Brow Road in Lot 5 and a building, likely related to agriculture, is located in Lot 5, Concession 2.

Mills were vital to the growth and success of Waterdown until the beginning of the 20th Century, when a series of fires, floods and declining water levels in Grindstone Creek led to their redundancy (Cuming, 1996). Figure 3.10 indicates the locations of mills and factories as they appeared on the 1903 Imperial Atlas of Wentworth County.

### 3.5 SITE RECONNAISSANCE

A visit was made to the project area on May 5th, 2008 to assess the ground conditions and to investigate areas identified through aerial imagery as potentially attractive to prehistoric habitation. Examination of the site confirmed not only the presence of several attractive land features within the project area but also features not readily identifiable in aerial imagery contributing to lower potential.

The project area is presently a mix of residential and agricultural land. Undeveloped portions of the project area occur along both sides of Waterdown Road and between Mountain Brow Road and Dundas Street. A late 20th century to early 21st century residential area occurs directly west of the undeveloped land, accessed via Mountain Brow Road.

Sandy knolls were located in fields on both sides of Waterdown Road north of Flatt Road (Appendix A, Photo 1). Fields to the south of Flatt Road, north of North Service Road lacked knolls, having relatively flat topography (Appendix A, Photo 2) (Figure 3.3).

A deep ravine interrupts the project area near the north transmission line (Figure 2.1.). The steepness of slope decreases the archaeological potential of that portion of the project area.
Figure 3.8 - Project Area as Shown on the 1859 Surtees Map
Figure 3.9 - Project Area As Shown on 1875 Atlas
(Source: Page and Smith, 1875)
Figure 3.10 - Portion of Project Area as Shown on 1903 Atlas, Mills and Factories Shown in Red

(Source: Imperial Atlas of Wentworth County, 1903)
4.0 STUDY RESULTS

Based on the presence of attractive landscape features for prehistoric habitation and the presence of a large number of archaeological sites in the immediate vicinity of the project area and in a geographical setting very similar to the project area, any undeveloped portions of the project area, including the agricultural fields at the northeast of the project area and along Waterdown Road, are rated as having elevated potential for undiscovered prehistoric period archaeological resources. The deep ravine east of the present road beneath the transmission line is not rated as having elevated archaeological potential. Figure 4.1 indicates areas of elevated archaeological potential within the project area.

Archival research has indicated that there is a long history of historical occupation on and near the project area; this is especially true north of Mountain Brow Road. Figure 4.2 indicates the locations of remaining heritage structures as well as areas of elevated historic period archaeological potential.

5.0 RECOMMENDATIONS

Given the elevated archaeological potential throughout the undeveloped portions of the project area, it is Jacques Whitford’s recommendation that Stage 2 Archaeological Assessment occur in any areas where below grade disturbances (i.e. excavation or grading) will occur for any road improvements or the construction of new roadways and associated features such as ditches. Stage 2 Archaeological Assessment will need to be completed using both pedestrian and test pit excavation survey strategies.

All of the project area that is currently under cultivation will require assessment using a pedestrian survey strategy, as mandated by Ontario Ministry of Culture guidelines (MoC, 2006). Pedestrian survey is both more efficient and more accurate than test pit survey. Since the land south of Mountain Brow Road was historically used for farming most of the land identified as having high archaeological potential has been used for cultivation, and is eligible for pedestrian survey. Pedestrian survey requires that the areas of cleared ground be ploughed and allowed to weather through one hard rainfall or several lighter rainfalls. Once the ground has weathered, the fields are then walked at a slow pace at 5 m intervals. During pedestrian survey if a site is found (i.e. a number of artifacts identified in a specific areal context) those artifacts should be left in the field, with the exception of diagnostic artifacts (e.g. projectile points, decorated ceramic), but the location marked and recorded on large scale map or by GPS.

In those areas where conditions do not allow for pedestrian survey, a test pit survey strategy (i.e. excavating a series of test pits, 40 x 40 cm or larger, and screening all soil for artifacts) will need to be utilised (MoC, 2006). In this situation the artifacts are retained, and the location of the positive test pits recorded.
Figure 4.1- Areas of Elevated Prehistoric Period Archaeological Potential
Figure 4.1- Areas of Elevated Historic Period Archaeological Potential in the Project Area
6.0 CLOSURE

This report has been prepared for the benefit of the City of Hamilton, the City of Burlington and the Regional Municipality of Halton, and may not be used by any third party without the express written consent of Jacques Whitford Limited, the City of Hamilton or their partners. Any use which a third party makes of this report is the responsibility of such third party.

This report is filed with the Minister of Culture in compliance with sec. 65 (1) of the Ontario Heritage Act. The ministry reviews reports to ensure that the licensee has met the terms and conditions of the licence and archaeological resources have been identified and documented according to the standards and guidelines set by the Ministry of Culture, ensuring the conservation, protection and preservation of the heritage of Ontario. It is recommended that development not proceed before receiving confirmation that the Ministry of Culture has entered the report into the provincial register of reports.

We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this project.

Yours truly,

JACQUES WHITFORD LIMITED

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Assistant Archaeologist  Senior Archaeologist and Heritage Planning Consultant
7.0 REFERENCES


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Flamborough Archives and Heritage Society


LAC (Library and Archives Canada)

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APPENDIX A

Photographs
Photo 1 - Undeveloped Land North of Flatt Road, Facing North

Photo 2 - Undeveloped Land North of North Service Road, Facing East