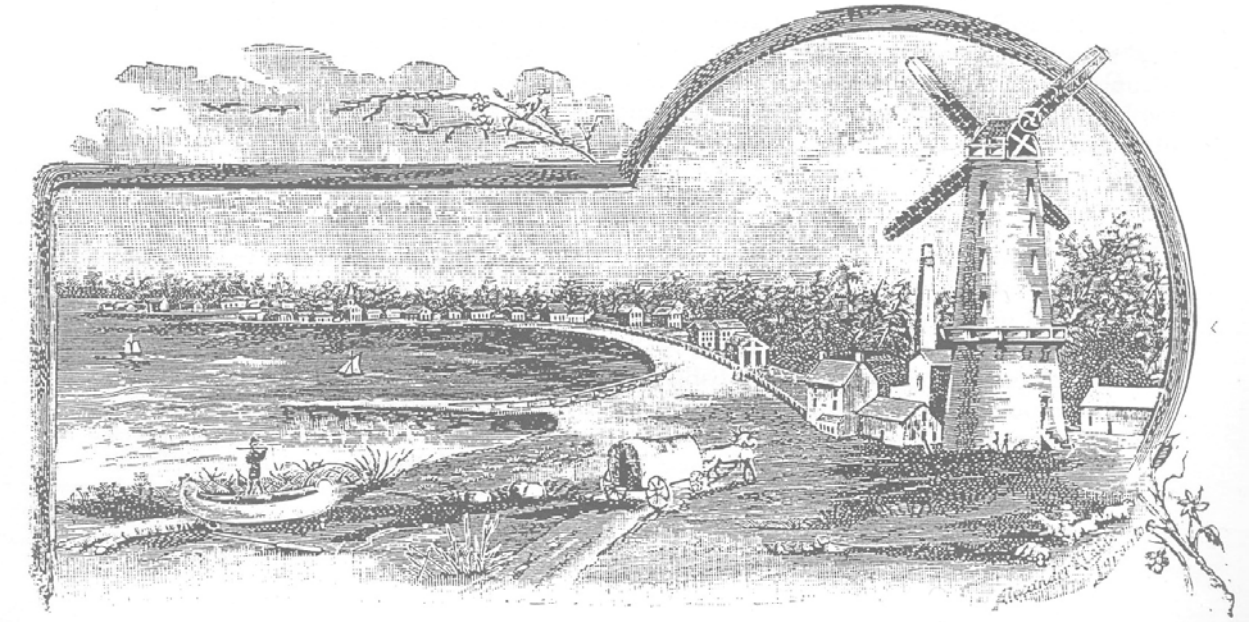
The Archaeological Master Plan of the Central Waterfront City of Toronto, Ontario



TORONTO, IN 1834.

Prepared for
Heritage Preservation Services
Toronto City Hall
Second Floor
100 Queen Street West, Suite A18
Toronto, Ontario M5H 2N2

Prepared by
ARCHAEOLOGICAL SERVICES INC.
528 Bathurst Street
Toronto, Ontario M5S 2P9
Tel: (416) 966-1069 Fax: (416) 966-9723
Email: archaeology@sympatico.ca
Website: www.archaeologicalservices.on.ca

in association with

HISTORICA RESEARCH LIMITED
458 Queens Avenue, Suite 458
London, Ontario N6B 1X9

CUESTA SYSTEMS INC.
5230 South Service Road
Burlington, Ontario L7L 5K2

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PROJECT PERSONNEL

Project Director:	Dr. Ronald Williamson[1]
Project Historians:	Ms. Mary MacDonald[1] Mr. Christopher Andreae[2]
Project Archaeologist:	Mr. Robert MacDonald[1]
Report Preparation:	Ms. Mary MacDonald Mr. Robert MacDonald Ms. Irena Miklavcic[1] Mr. David Robertson[1] Dr. Ronald Williamson
GIS Mapping:	Ms. Brenda Stephens[3]

[1] Archaeological Services Inc.
[2] Historica Research Limited
[3] Cuesta Systems Inc.

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Background

The City of Toronto has a cultural history that began at least 10,000 years ago and continues to the present. Due to the richness of its natural environment, the region has attracted human habitation from the time of the first peopling of Ontario. The archaeological sites that are the physical remains of this lengthy settlement history represent a fragile and non-renewable cultural legacy.

The Master Plan

As part of Culture Division's contribution to the Secondary Plan for the Central Waterfront, Heritage Preservation Services retained Archaeological Services Inc., in association with Historica Research Limited and Cuesta Systems Inc., to prepare an Archaeological Master Plan. The study area mirrors that of the Part II Plan, encompassing the lands between Leslie and Jameson Streets and (essentially) south of Front Street. The Archaeological Master Plan for the waterfront study area consists of four major components:

1. an overview of settlement history as it pertains to archaeological resources
2. mapping of the areas of archaeological potential
3. inventory of the 19 major areas of archaeological significance
4. guidelines for the management, development review and conservation of known and potential archaeological resources

Most of the lands along the Central Waterfront have been repeatedly developed over the last 200 years destroying much of the archaeological record. In addition, the majority of the modern waterfront was created through lake-filling activities undertaken by the railways, major industries and the Harbour Commission. As a result, large parcels of land are "artificial" and relatively recent additions that hold limited archaeological potential. Nonetheless, the research and analysis carried out in preparing the Archaeological Master Plan identified 19 surviving areas of archaeological potential. These zones are representative of the pre- and post-contact history of the City including that of the First Nations, the French regime, the early British Colonial Era, the War of 1812, commercial maritime development, the early railway era, and subsequent industrialization. It is highly likely that archaeological deposits from all of these periods has survived, representing significant archaeological value, and warranting conservation during any re-development along the central waterfront.

Legal Framework

In Ontario, Archaeology is a provincial interest as defined in the Provincial Policy Statement 2.5.2 issued under The Planning Act. It is regulated by the Ministry of Culture through legislation that includes: The Planning Act (Section 3), The Ontario Heritage Act (Part VI), The Environmental

Ministry administers the licensing program and reviews all archaeological assessments conducted in the Province. It is the responsibility of each Municipality to request archaeological assessments where they are warranted. In the City of Toronto, Heritage Preservation Services (Culture Division), with the cooperation of the Department of Urban Development Services, is responsible for the municipal stewardship and monitoring of archaeological resources located on both private and public lands.

Recommendation

The primary recommendation from the Master Plan is the requirement that all future development applications and major capital projects in areas of archaeological potential, as defined in this study, be subjected to an archaeological resource assessment (as per Provincial guidelines) prior to any land disturbance The Master Plan does not restrict development on sites of archaeological potential. Instead, it provides for the mitigation of impacts on archaeological resources prior to development.

Benefits

Once implemented, the Master Plan will reduce staff time required to review applications in the study area and will standardize and automate the archaeological resource management procedure. This will save the development sector time and money while best conserving the archaeological resources of the Waterfront. Understanding the archaeological potential of this area will provide property owners and City staff with the strategic information necessary to either avoid sites of archaeological significance or to plan for licensed salvage excavation of all or a portion of those sites at the earliest opportunity. As Toronto proceeds with its planning initiative for the waterfront, there will be confidence that the archaeologically-significant sites are identified and will be preserved as open space, incorporated into development (without being disturbed) or, where necessary, excavated. Also, the Central Waterfront Archaeological Master Plan provides the City with an excellent opportunity to use archaeology as a means of generating public awareness for heritage, as an educational tool, and as an impetus for historical interpretation all of which will enhance the waterfront's potential for cultural tourism.

Looking Ahead

The Archaeological Master Plan for the Central Waterfront is the first cultural resource management tool of its kind in the amalgamated City. Similar planning mechanisms are urgently needed in other areas of high archaeological potential and it is anticipated that the Waterfront Master Plan will form a precedent for those studies that follow in other parts of Toronto.

1.0 INTRODUCTION

1.1 Study Background And Objectives

Archaeological Services Inc. (ASI) in association with Historica Research Limited and Cuesta Systems Inc. was contracted by the Culture Division of the City of Toronto to prepare a master plan of the distribution of known and potential archaeological resources within the Central Waterfront zone of the City. In anticipation of significant re-development within this zone, requiring land use designations and infrastructure phasing to help ensure the long-term economic, social and environmental health of the City, this archaeological planning study had three major goals:

1) the preparation of an overview of the area's settlement history as it may be expected to pertain to archaeological resources;

2) the mapping of archaeological site potential, based on known site locations, past and present land uses, and environmental and cultural-historical data; and

3) the review of the current provincial planning and management guidelines for archaeological resources, as well as the identification of a recommended management strategy for known and potential archaeological resources within the study area.

1.2 Conservation And Change: Some Key Concepts

> *The Province's resources—its agricultural land base, mineral resources, natural heritage resources, water supply and cultural heritage resources—provide economic, environmental and social benefits. The wise use and protection of these resources over the long term is a key provincial interest* (Preamble, Provincial Policy Statement, Ministry of Municipal Affairs and Housing 1996).

In Ontario, cultural heritage conservation is accepted as a legitimate objective of planning activity, as it is in many other provinces and countries. Conservation planning provides an important mechanism for ensuring that future development (*e.g.*, residential, industrial and infrastructure construction) respects the cultural heritage of the City.

Conservation planning and management is generally concerned with ensuring that valued heritage resources are conserved and protected, in a sound and prudent manner, in the continuing and unavoidable process of change in the environment. A key issue is that the role of the custodian and steward of these resources generally falls to the private property owner. It is neither possible nor desirable that all resources be brought into public ownership. Therefore, conservation management is undertaken by a variety of actors, and it is necessary, through legislation and education, to bring all of these actors together in pursuit of a common goal. In many instances, it is traditional planning

mechanisms that now seek to ensure that heritage resources are conserved and/or maintained within the process of change.

In the process of change, heritage resources may be affected in several ways. Change may result from some action that is purposefully induced in the environment, such as development activities (*e.g.*, road building, residential construction). This may result in both adverse and beneficial impacts, depending on the degree to which the change is sensitively managed. Change may also be a gradual and natural process of aging and degeneration, independent of human action, that affects artifacts, building materials, human memories or landscapes. Thus conservation management must ensure that change, when it does occur, is controlled. Its negative impacts upon heritage resources must be either averted or minimized, through either ensuring that change has no adverse impacts whatsoever, or that intervention in the process will result in the promotion of beneficial effects.

1.3 Archaeological Resources As Cultural Heritage: Definitions

Defining Cultural Heritage

The utility of this report, as a guide that will assist to incorporate archaeological resources within the overall planning and development process, fundamentally rests upon a clear understanding of the physical nature of cultural heritage resources in general, the variety of forms they may assume, and their overall significance and value to society.

In common usage, the word heritage tends to be vaguely equated with "things of the past." While it may be arguable that such an interpretation of the term is true, it is so only in the very narrowest sense. An interest in heritage does indeed indicate an awareness of, and concern for, "things of the past," yet at the same time it recognizes that these "relics" are worthy of such interest primarily because they provide insights into the processes that have helped to shape the contemporary world in which we live, and that will continue to exert an influence into the future. Examination of our heritage, therefore, not only allows us to learn about our origins and our history, but it also provides a means of understanding who we are now, and a means of glimpsing who we may become.

In recognition of the essentially timeless quality of these "things of the past," Ontario's heritage has been defined as:

> *all that our society values and that survives as the living context—both natural and human—from which we derive sustenance, coherence and meaning in our individual and collective lives* (Ontario Heritage Policy Review [OHPR] 1990:18-19).

Such an all encompassing definition has the additional advantage of recognizing that our heritage consists of both natural and cultural elements. As human beings, we do not exist in isolation from our natural environment. On the contrary, there has always been a complex interrelationship between people and their environment and each has shaped the other, although the nature and direction of these mutual influences has never been constant. This definition further recognizes that heritage not only includes that which is tangible, but also that which is intangible.

All of those elements that make up this heritage are increasingly being viewed in the same manner as are "natural resources," in that they are scarce, fragile, and non-renewable. These cultural heritage resources, therefore, must be managed in a prudent manner if they are to be conserved for the sustenance, coherence and meaning of future generations, even if their interpretations of the significance and meaning of these resources in contributing to society may be different from our own.

The development of the means by which to manage these cultural resources depends, in turn, on the recognition that on a practical level it is necessary to categorize them by type, yet at the same time these basic types also form a continuum. Both the distinctiveness of the individual categories of cultural resources and the overlap between these categories has been recognized by the Ontario Heritage Policy Review. This work (OHPR 1990:23) defined three broad classes of cultural resources:

IMMOVABLE HERITAGE — land or land-based resources, such as buildings or natural areas, that are "fixed" in specific locations; for example:

structures — buildings, ruins, and engineering works, such as bridges;

sites — archaeological sites, battlegrounds, quarries, earth science sites such as rock formations, and life science sites such as rare species habitats;

areas — streetscapes, neighbourhoods, gardens, lakes, rivers and other natural, scenic, and cultural landscapes;

MOVABLE HERITAGE — resources, such as artifacts and documents, that are easily "detachable" and can be transported from place to place; for example:

objects — artifacts such as artworks, utensils and adornments, and earth and life science specimens, such as fossils and crystals;

documents — including newspapers, letters, films, and recordings;

INTANGIBLE HERITAGE — such as traditional skills and beliefs; for example:

values — attitudes, beliefs and tastes;

behaviours — including skills, games, dances and ceremonies;

speech — stories and narratives, songs, sayings, and names.

Each of these categories, however, often overlaps with others. Archaeological sites, for example, are "immovable" resources, yet in most cases these sites are formed by concentrations of man-made or man-modified objects that are "movable" resources. Similarly, "movable" or "immovable" resources, such as buildings or documents often derive their significance through their intangible cultural associations, as they may reflect or typify specific skills or beliefs.

Despite the fact that all cultural heritage resources should be viewed as components of a single continuum, there remains a need to distinguish between the three basic categories outlined above. This is because the approaches to the examination of resources within the different categories must be specifically tailored to their characteristics and needs. Not only does the study of the different types of resources require different, and often highly specialized techniques, but the threats that these resources face are often different as well. Thus planning decisions related to the conservation of different types of resources are informed by different sets of considerations. Likewise, the means by which such planning decisions are implemented will also vary.

Defining Archaeological Resources

Over the course of the past twenty-five years, a variety of terms and phrases have been used in Ontario to describe the material remnants of the past. "Cultural heritage," "cultural resources," "heritage features" and a number of combinations of these terms have all been used interchangeably to describe various facets of the heritage environment. For the purposes of "planning" or "environmental management," a number of definitions have been used in specific contexts, particularly as they relate to provincial legislation. Chief among these are the Ontario Planning Act (1996) and its Policy Statement, the provincial guidelines developed as part of the Ontario Environmental Assessment Act (1997).

The Planning Act Policy Statement defines **archaeological resources** as:

> *the remains of any building, structure, activity, place or cultural feature, which because of the passage of time is on or below the surface of the land or water, and which has been identified and evaluated and determined to be significant to the understanding of the history of a people or a place.*

The Environmental Assessment Act, on the other hand, includes archaeological resources within the more broadly defined category of **cultural feature**, which is understood to include:

> *any man-made or modified object in or on the land or underwater such as buildings of various types, street furniture, engineering works, plantings and landscaping, archaeological sites, or a collection of such objects seen as a group because of close physical or social relationships.*

Finally, the Canadian Environmental Assessment Act (1992) provides an all-encompassing definition of cultural heritage resources as:

> *lands and resources for traditional purposes by aboriginal persons, or on any structure, site or thing that is of historical, archaeological, paleontological or architectural significance.*

Individual archaeological sites (that collectively form the archaeological resource base) are distributed in a variety of settings across the landscape, being locations or places that are associated with past human activities, endeavours, or events. These sites may occur on or below the modern land surface, or may be submerged under water. The physical forms that these archaeological sites may take include: surface scatters of artifacts; subsurface strata which are of human origin, or incorporate cultural deposits; the remains of structural features; or a combination of these attributes. As such, archaeological sites are both highly fragile and non-renewable.

The uniqueness and fragility of these features led the study team to identify and include on the study maps certain features that are on the immediate periphery of the study area.

The most important of these are the remains of the first parliament buildings of Upper Canada. These deposits are situated immediately south of Front Street between Berkeley Street and Parliament Street. Recently subjected to archaeological investigations, thereby confirming their partial survival and exact location, they have national and international historic significance.

The Gooderham & Worts Distillery complex is a designated National Historic Site and contains known archaeological resources.

Other potential regionally significant archaeological sites exist outside the study boundary but are also close to the study area. Mid-nineteenth century wharfs and railway features and the Consumer's Gas property are typical of such sites. These areas may be adversely affected by future development within the actual study area. For example, infrastructure improvements such as roads or transit lines, which link facilities within the study area with the rest of the city, and commercial construction stimulated by the revitalization of the study area, could, therefore, impact nearby significant archaeological resources.

Simply, future planning for the study area must take into account the impact on historic archaeological resources beyond the study area boundaries.

It should be noted that the archaeological features that have been identified on the project maps and described in text were all previously documented. Indeed, no primary research was undertaken for this study. On the other hand, sufficient detailed research has been conducted for much of the study area including those lands within the Canadian National Exhibition, the Railway Lands between Bathurst Street and Yonge Street, much of Fort York, and the Ashbridges Bay area. In most of these areas, potential resources have already been graded according to their integrity and significance and development plans approved by the City and Province. Indeed, many of the archaeological features have been subjected to mitigative investigations. This study is, therefore, fully consistent with all previously undertaken planning studies.

While there are also individual studies for selected sites within the rest of the study area, there is also less complete knowledge of the buried heritage features along the shoreline from Yonge to the Cherry Street/Keating Channel and within the former Ataratiri lands between the Don River, Eastern Avenue, Parliament Street and the Canadian Nation rail lines. Should development occur in these areas, it would be prudent to undertake detailed primary research to ensure that all significant heritage features of potential archaeological interest have been identified. This has been recognized through definition of specific requirements for Stage 1 archaeological assessments within this portion of the study area.

2.0 THE DEVELOPMENT OF TORONTO'S SHORELINE: AN OVERVIEW

2.1 Introduction

Toronto's central waterfront is considerably changed from what Aboriginal people would have known prior to their contact with Europeans. Before recorded history, the area was a junction point of land and water routes, with trails running northward from the shoreline (along river routes) linking the Lower and Upper Great Lakes. For ten millennia, temporary encampments and semi-permanent villages of various sizes comprised the extent of human habitation along the lake shore. These aboriginal occupants left no written record of their traditions or the generations that went before. Their legacy is their oral history and the archaeological sites and artifacts that were left behind.

By the late seventeenth century, the Five Nations Iroquois were using the region for hunting and fishing with main settlements near the mouths of the Humber and Rouge Rivers. For the most part, however, the region was left unoccupied, and by the time of European military occupation and settlement, former corn fields had succeeded to forest. Like the aboriginals before them, these new settlers chose the same locations for their homesteads.

During the late seventeenth and early eighteenth centuries, the region came to be occupied by the Mississaugas, an Algonquian people whose subsistence economy was based on garden farming, as well as hunting, fishing and gathering wild plants. The British crown recognized the Mississaugas as the "owners" of the north shore of Lake Ontario in the area of Toronto and entered into negotiations to facilitate settlement after the American Revolution. Although no archaeological sites have been registered as historic Mississauga within the City, there is certainly potential for their discovery and identification.

By 1720, the French had established a trading post on the lakeshore and later, in 1751, Fort Rouillé was built to strengthen a chain of forts protecting France's fledgling empire. With the ascendancy of British authority a decade later came more military sites (an Old Fort and a New Fort) yet the most substantial alterations to the waterfront occurred after European settlers arrived in York by boat in 1793. At this time, the establishment of the town on the best natural harbour on Lake Ontario coincided with the beginnings of free enterprise commerce on the Great Lakes and the shoreline would never look the same again.

In order to place the archaeological features identified in Section 3 within their historic and physiographic contexts, Section 2.2 outlines the physiographic development of the region while section 2.3 summarizes the extent of human activity and land development over time. Site references to Section 3 are also contained in the text where appropriate.

2.2 Physiographic Context

The lakeshore is believed to have stabilized in its early nineteenth century position circa 3000 B.C. To the east, a sand spit (E5) was formed by the deposition of sediments that were eroded from the

Scarborough Bluffs to the east and transported westerly by longshore drift (Freeman 1976; Krentz 1985: 4). The current model of lake level changes in the Ontario basin (Anderson and Lewis 1985) suggests that this process likely began sometime after about 7,000 B.P. Prior to that time, and beginning with the draining of glacial Lake Iroquois at about 12,000 B.P., the level of Lake Ontario was considerably lower and the shoreline was far to the south of its present location (Figure 1). Early mapping indicates that prior to human modifications, the position of the lakeshore varied from approximately 50 to 150 metres to the south of the present alignment of Front Street (Figure 2). The transgression of the Lake Ontario north shore through the Late Pleistocene and Holocene is outlined in Figure 1. The bathymetric contours in this figure also illustrate the submerged bank of sediment associated with the emergent sand spit (E5, T1).

Precisely when the sand spit emerged from Lake Ontario is currently unknown, although this would have depended on enough sediment having accumulated from erosion and littoral transport of

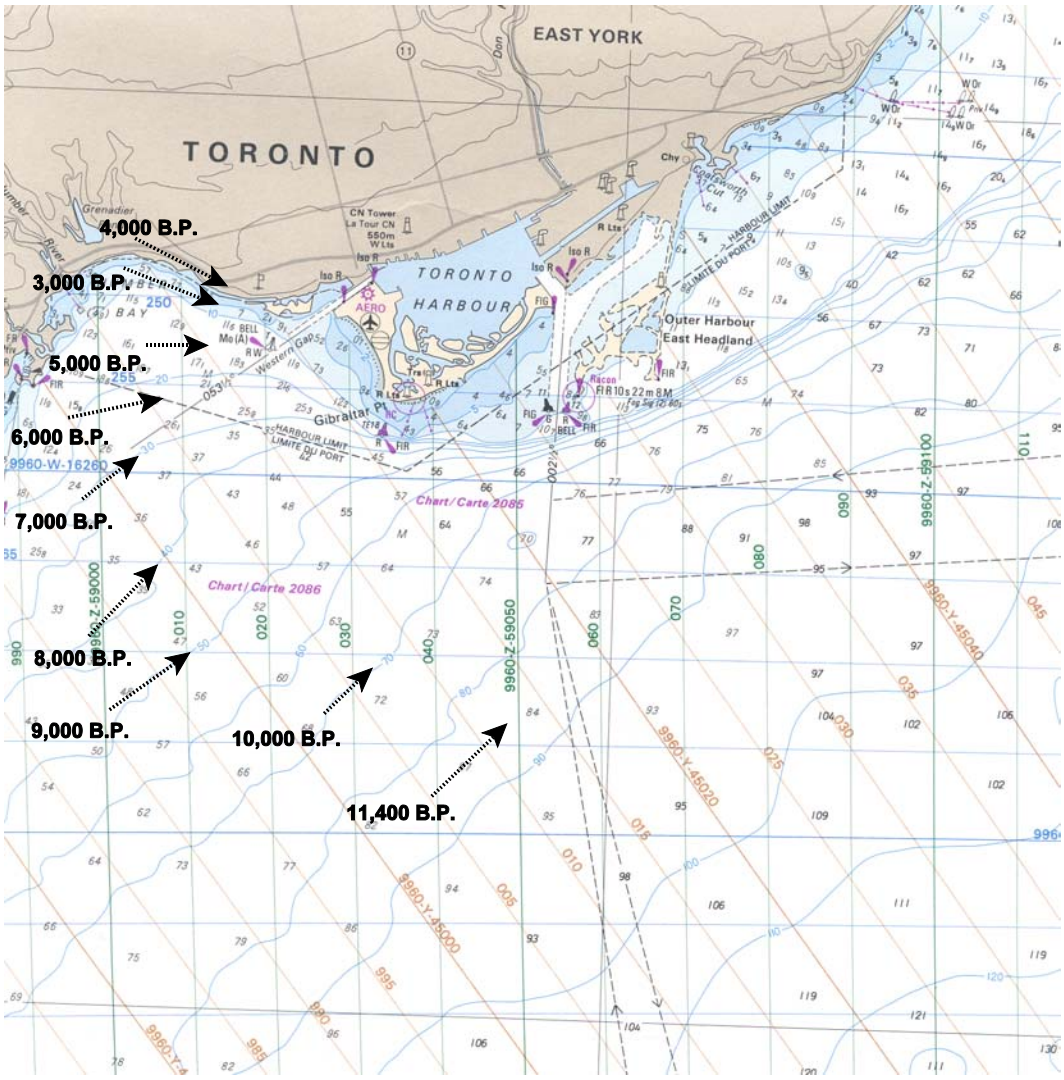


Figure 1: Bathymetric Chart of Toronto Central Waterfront (from C.H.S. Chart L/C 2077)
Arrows indicate approximate shoreline contour positions through time (based on Anderson and Lewis 1985).

material from the Scarborough Bluffs. The spit was clearly a dynamic entity, as evidenced by the flight of concentric beaches notable in its earliest recorded form (see Figure 2). In addition to the accretion of sediments transported by longshore drift, the spit was also subjected to on-going erosion. Growth of the spit would occur as long as the net result of these processes was a gain in sediment, whereas the spit would shrink in periods when the net result was a loss. Early commentaries suggest gradual growth of the sand spit until the 1850s followed by a period of declining accretion and then erosion. This has been attributed to a decline in the quantity of sediment being eroded from the Scarborough Bluffs. As only about six percent of the eroded bluff material is subsequently deposited at the spit, it is apparent that an enormous amount of sediment has been removed over the millennia, suggesting that the Scarborough Bluffs were once an even more significant promontory (Krentz 1985:6-8).

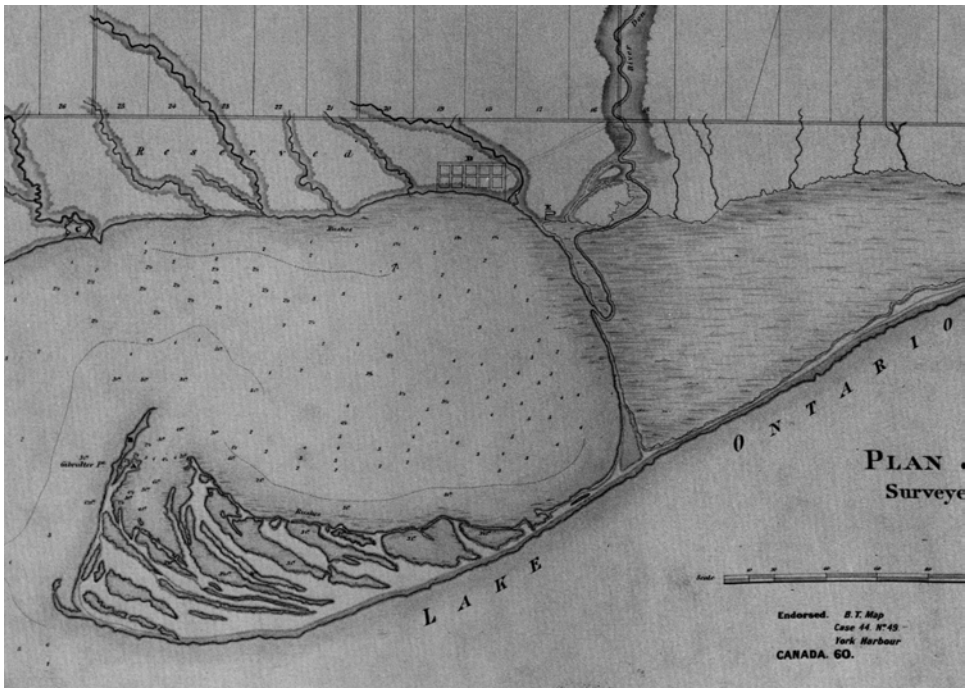


Figure 2: A. Aitken's *Plan of York Harbour, 1793.* Note the concentric beaches of the spit and the slender isthmus between the spit and the mainland (from Benn 1993:27).

In addition to on-going erosion, the sand spit has also been subjected to periodic catastrophic erosion. As indicated in Figure 2, when first mapped the spit was a peninsula attached to the mainland by a slender isthmus. In 1852, a storm breached the isthmus and subsequent wave action enlarged the breach to about 45 metres. In 1858, another storm enlarged the breach to about 450 metres, and the gap had grown to about 1200 metres by the mid-1860s (Krentz 1985: 13).Under such a dynamic regime, the development of soils on the sandy substrate was likely quite retarded, with regosols likely the norm. Natural fertility would be low except in depressional situations where organic material would accumulate. The rolling nature of the topography, varying between dry sandy ridges and backwater basins, would have imparted considerable complexity to the soil drainage.

By the time the Toronto Islands sand spit began forming, sometime after about 7,000 B.P., an essentially modern forest had become established throughout southern Ontario. Under the widely used ecological zonation developed for Ontario by Hills (1958) and revised by Burger (1993), the Toronto lakeshore is situated in forest Site Region 7E. Under median moisture regimes and eco-climates (Table 1) the climax forest in this region tends to be co-dominated by hard maple (*Acer saccharum*) and beech (*Fagus grandifolia*), often in association with basswood (*Tilia americana*), red oak (*Quercus rubra*), white oak (*Quercus alba*), shagbark hickory (*Carya ovata*) and bitternut hickory (*C. cordiformis*). It is doubtful, however, that such a forest would have developed on the Toronto Islands sand spit. Given the inferred low fertility of the sandy soil and the complex interplay of drainage regimes, the original vegetation was likely a patchwork of dry uplands with early to mid-successional taxa such as cottonwood, black cherry, oak, white pine, and hard maple, wet lowlands with oak, ash, elm, and hickory, and wetlands with shrubs and emergent vegetation. This interdigitation of habitats and locally high bio-diversity would no doubt have given rise to a very rich coastal wetland ecosystem similar to other Great Lakes examples such as Long Point on Lake Erie.

Table 1: Characteristic Tree Species in the Site Regions of Southcentral Ontario

ECOCLIMATE (TEMPERATURE)								
Hotter			Normal			Colder		
SOIL TEMEPERATURE								
Drier	Fresh	Wetter	Drier	Fresh	Wetter	Drier	Fresh	Wetter
Site Region 7E Lake Erie								
red, black, chinquapin Oak shagbark Hickory Butternut (Chestnut) largetooth, trembling Aspen	white, red Oak white Ash hard Maple Walnut Tulip pignut Hickory Butternut	red, silver Maple white, red Ash white Elm Sycamore Tulip Cottonwood black Gum	white, red Oak shagbark, pignut Hickory white Pine White rock Elm	hard Maple Beech Basswood red, white Oak shagbark, pignut Hickory Cottonwood black Cherry	swamp, pin Oak red, black Ash white Elm bitternut Hickory	eastern Hemlock white Pine hard Maple	white Elm black Ash red Maple eastern Hemlock	white Spruce balsam Fir red Maple yellow, white Birch eastern white Cedar

Site Class comprises high proportion of site region

Site Class comprises moderate proportion of site region

Site Class comprises low proportion of site region

() = species common in part o f site region
For each site region, the upper rows list climax species and the lower row lists pioneer species

Adapted from Burger (1993)

Another distinctive feature of the shore on the other side of the harbour was a narrow limestone shingle beach (Figure 3), just wide enough in the nineteenth century for the passage of vehicles, lying below a steep embankment (Historica Research Limited 1989:50; Brown Associates Limited 1988:1). In this area, Garrison Creek emptied into Lake Ontario, its course forming a low sandy peninsula further to the west, on which Fort York was built. The outlet of Garrison Creek may have provided an environment in which a variety of food resources were available to any precontact or

early historic occupants of the region. Salmon, for instance, were reported in some abundance prior to alterations of the watercourse due to the clearance of the local forest cover (Scadding 1873:36).

Figure 3: View west to the entrance of Toronto Harbour in 1793 (from Careless 1984:8)

2.3 Historical Context

The Precontact Cultural-Historical Background

The land now encompassed by the study area has a cultural history which begins approximately 11,000 years ago and continues to the present. As there tends to be little widespread awareness of the depth of this pre-contact settlement history, or general knowledge of the societies that inhabited Ontario prior to the onset of Euro-Canadian settlement, a brief review of the pre-contact history of the study area, as it is understood in its broader regional context, is included below. This material is further summarized in Table 2.

It should be noted that the shifting water levels of Lake Ontario discussed in Section 2.2 above, are likely to have destroyed or submerged evidence of occupations along the shoreline in the Toronto waterfront area prior to circa 3000 B.C. Moreover, the intensity of nineteenth and twentieth century land use in the study area is likely to have destroyed the comparatively ephemeral archaeological deposits left by the precontact occupation of the 3000 B.C.- A.D. 1700 shoreline zone. Nevertheless, occupations prior to this time are known to have occurred in locations in close proximity to the study area, as is attested by the discovery of numerous precontact sites within the balance of the City of Toronto.

Table 2: Southern Ontario Precontact Culture-History

Date	Period	Description
A.D. 1650 - A.D. 1400	Late Iroquoian (Late Woodland)	- complex agricultural society - villages, hamlets, camps - politically allied regional populations
A.D. 1400 - A.D. 1300	Middle Iroquoian (Late Woodland)	- major shift to agricultural dependency - villages, hamlets, camps - development of socio-political complexity
A.D. 1300 - A.D. 900	Early Iroquoian (Late Woodland)	- foraging with limited agriculture - villages, hamlets, camps - socio-political system strongly kinship based
A.D. 900 - A.D. 800	Transitional Woodland	- incipient agriculture in some regions - longer term settlement occupation and reuse
A.D. 800 - 400 B.C.	Middle Woodland	- hunter-gatherers, spring/summer congregation and fall/winter dispersal - large and small camps - band level society with kin-based political system - some elaborate mortuary ceremonialism
400 B.C. - 1000 B.C.	Early Woodland	- hunter-gatherers, spring/ summer congregation and fall/winter dispersal - large and small camps - band level society with first evidence of community identity - mortuary ceremonialism - extensive trade networks for exotic raw materials
1,000 B.C. - 7,000 B.C.	Archaic	- hunter-gatherers - small camps - band level society - mortuary ceremonialism - extensive trade networks for exotic raw materials
7,000 B.C. - 9,000 B.C.	Paleo-Indian	- first human occupation of Ontario - hunters of caribou and now-extinct Pleistocene mammals - small camps - band level society

Paleo-Indian Period (9,000 B.C.-7,000 B.C.)

While the arrival of Paleo-Indian hunting bands in southern Ontario has not been accurately dated, it is thought that they arrived sometime between approximately 11,000 and 10,500 years ago, soon after the area became habitable. During the previous millennia, southern Ontario was covered the glaciers that stretched across most of North America. As these glaciers began to retreat approximately 12,500 years ago, large meltwater lakes formed in their wake and continued to cover much of southern Ontario.

The landscape that subsequently emerged was one of relatively barren tundra interspersed with areas of open boreal forest. This environment supported herds of large Pleistocene mammals such as mastodon, moose, elk and especially caribou, who were in turn followed by small bands of nomadic hunters known as Paleo-Indians. Evidence concerning the Paleo-Indian (circa 9,000 to 7,000 B.C.) peoples is very limited since their populations were not large and since little of their sparse material culture has survived the millennia. Furthermore, in following the herds, Paleo-Indian groups traveled extremely long distances over the course of the year, and seldom stayed in any one place for a significant length of time. Virtually all that remains are the tools and by-products of their chipped stone industry, the hallmark being large distinctive spear points that have a prominent channel or groove on each face. Paleo-Indian sites are frequently found adjacent to the shorelines of large post-glacial lakes suggesting that their camping sites were located along the shores of lakes to intercept migrating caribou herds. The circa 12,500 B.P. strandline above Davenport Avenue north of the study area is one such relict shore, although it was likely located well inland by the time of any Paleo-Indian occupations of the central waterfront area. Any Paleo-Indian occupations along the former shores of Lake Ontario have submerged by the present lake.

Archaic Period (7,000 B.C.-1,000 B.C.)

The Archaic period is commonly divided into three sub-periods: Early Archaic (circa 7,000-6,000 B.C.), Middle Archaic (circa 6,000-2,500 B.C.), and Late Archaic (circa 2,500-1,000 B.C.). Few Early or Middle Archaic period sites have been investigated and they, like Paleo-Indian sites, are often identified on the basis of the recovery of isolated projectile points. Paleo-environmental data suggest that a mixed forest cover had been established in Ontario by circa 7,000 B.C. and that the nomadic hunter-gatherers of this period exploited deer, moose and other animals, as well as fish and some plant resources, still moving relatively large distances over the landscape during the course of the year. The landscape in which these people lived continued to change, with much lower water levels in the Great Lakes and the expansion of more temperate forests. Over the following millennia, technological and cultural change is evident in the wide variety of tools produced, which in turn are reflections of the shifts in hunting strategies necessitated by a constantly evolving environment. By the Late Archaic period, however, hunter-gatherer bands had likely settled into familiar hunting territories. Their annual round of travel likely involved occupation of two major types of sites. Small inland camps, occupied by small groups of related families during the fall and winter, were situated to harvest nuts and to hunt the deer that also browsed in the forests, and which congregated in cedar swamps during the winter. Larger spring and summer settlements located near river mouths, were places where many groups of families came together to exploit rich aquatic resources such as spawning fish, to trade, and to bury their dead, sometimes with elaborate mortuary ceremonies and offerings.

Woodland Period (1,000 B.C.-A.D. 1650)

The Woodland period is divided into four sub-periods: Early (1,000 B.C.-400 B.C.), Middle (400 B.C.-A.D. 800), Transitional (A.D. 800-A.D. 900) and Late Woodland (A.D. 900-A.D. 1650). The

Late Woodland period, which witnessed the fluorescence of Iroquoian society in the Great Lakes region, is further divided into the Early, Middle and Late Iroquoian stages.

The Early Woodland period differed little from the previous Late Archaic period with respect to settlement-subsistence pursuits. This period is, however, marked by the introduction of ceramics into Ontario. Although a useful temporal marker for archaeologists, the appearance of these ceramics, does not seem to have profoundly changed the hunter-gatherer lifestyle. There is compelling evidence in the Early Woodland period, however, for an expanding network of societies across northeastern North America that shared burial rituals. A common practice, for example, was the application of large quantities of symbolically important red ochre (ground iron hematite) to human remains and the inclusion in graves of offerings of objects that represented a considerable investment of time and artistic skill. Moreover, the nature and variety of these exotic grave goods suggest that members of the community outside of the immediate family of the deceased were contributing mortuary offerings.

The most significant change during the Early and Middle Woodland periods, was the increase in trade of exotic items, no doubt stimulated by contact with more complex, mound-building cultures in the Ohio and Mississippi valleys. These items were included in increasingly sophisticated burial ceremonies that occasionally involved the construction of burial mounds by local groups. These developments may have emanated from the need for greater social solidarity among growing aboriginal populations that were competing for resources. Elaborate burial sites from this period were discovered near Grenadier Pond and at Baby Point on the Humber River during the late nineteenth and early twentieth centuries.

The pace of cultural change seems to have accelerated during the Transitional Woodland period. Much of this change was brought about by the acquisition of tropical plants species such as maize and squash from communities living south of the Great Lakes. The appearance of these plants initiated a transition to food production that reduced the traditional reliance on naturally occurring resources. The incipient agriculture of these Transitional Woodland, obviously led to decreased mobility as people tended to their crops. Sites were more intensively occupied and subject to a greater degree of internal spatial organization.

The revolutionary changes in the settlement-subsistence regime of southern Ontario's Native peoples continued throughout the balance of the Late Woodland period. As the most populous group and the most involved in the development of this new life-style, Ontario Iroquoian society often forms a distinct focus of Late Woodland archaeology; hence the Late Woodland period is often subdivided into an Early (A.D. 900-A.D. 1300), Middle (A.D. 1300-A.D. 1400) and Late Iroquoian Period (A.D. 1400-A.D. 1650).

Early Iroquoian society represents a continuation of Transitional Woodland subsistence and settlement patterns. Villages tended to be small, palisaded compounds with longhouses occupied by either nuclear or, with increasing frequency, extended families. These extended families formed the basis of social and political relationships within each village and, to a lesser extent, to ties between one community and the next. Around the villages, camps and hamlets served as bases from which

to collect wild plants or to hunt game. While some corn appears to have been an important dietary component at this time, its role was still more that of a supplementary nature than a staple.

The Middle Iroquoian period marks the stage in Iroquoian cultural evolution at which point a fully developed agricultural system (based on corn, bean and squash husbandry) and complex political means of regulating village affairs and for linking separate villages had developed. Widespread similarities in pottery and smoking pipe styles also point to increasing levels of intercommunity communication and integration.

In most cases, it appears that individual Early Iroquoian communities may have amalgamated during the beginning of the fourteenth century precipitating these dramatic changes in the economic, social and political spheres. While the data are still difficult to interpret, it is also clear at this time that villages and village confederacies were in conflict, with each other, and/or together against Algonquin-speaking peoples to the southwest. Whatever the cause/effect relationship, some villages were more heavily defended and some household groups (and longhouses) were larger at this time. In part, this may be due to a general increase in population sizes within an increasingly densely settled landscape.

Settlement and subsistence patterns appear to have remained relatively stable during the Late Iroquoian period. The most noticeable changes appear in the socio-political system. Through the fifteenth century, certain village households were consistently larger and more variable in membership than others within the same community. This trend peaked around the turn of the sixteenth century with some longhouses being repeatedly enlarged to reach lengths of over 120 metres. Some villages attained a size of over four hectares. This trend may reflect changes in the fortunes and solidarity of dominant lineages within villages and/or the movement of families between allied communities. During the sixteenth century, longhouses became smaller again. This modification of residential patterning suggests that changes had occurred in the kin-based political system. It has been suggested that this change reflects increased importance of clans over lineages. Since clan membership cut across related communities, this aspect of kinship was an important source of tribal integration. When European explorers and missionaries arrived in Ontario at the beginning of the seventeenth century, Iroquoian villages were under the direction of various chiefs elected from the principal clans. In turn, these villages were allied within powerful tribal confederacies.

Many large Iroquoian village sites are located along the middle and upper reaches of the Humber and Don rivers. While a substantial portion of these have been destroyed by urban development, others have been investigated to some degree. Such work has clearly demonstrated the Iroquoian use of the central waterfront area, even if few traces of such activity have survived in the study area itself. The mouths of the rivers and creeks draining into Lake Ontario, as well as the rich littoral zones along the shore and around Toronto Island, for example, attracted seasonal fishing expeditions, during which large quantities of fish were caught and processed for consumption later in the year.

By the early seventeenth century, however, Iroquoians had largely abandoned the Lake Ontario shore, as they relocated their settlements to Simcoe County. While this process likely took place

over many generations, the final impetus for this move was likely increased conflict with the Five Nations Iroquois of New York State. Intertribal warfare with the Five Nations during the first half of the seventeenth century, exacerbated by the intrusion of Europeans, ultimately resulted in the dispersal of the three Ontario Iroquoian confederacies – the Huron, the Petun and the Neutral.

Post Contact

Both the nature and extent of the earliest European occupations of the lands along the original Toronto waterfront were largely defined by the area's strategic importance for control of the economic networks, which had emerged within the region by the eighteenth century. All of these occupations occurred on or near the Lake Ontario shoreline, between the Don and Humber Rivers, at sites which afforded both natural landfalls for Great Lakes traffic, and convenient access, via the various waterways draining the area and overland trails, into the hinterlands. Thus, the first European settlement of Toronto was very much a continuation of patterns which were in place at least 100 years earlier, when the Huron and Seneca regarded the area as a pivotal "Carrying Place"(W1). Although the French had established a modest presence at Toronto in the early 1700s, competition with the British for control of the fur trade led to the foundation, in 1751, of Fort Rouillé (W2), on the shore of the lake, roughly three miles east of the Humber River. Fort Rouille was a small, wooden trading post built for the purpose of intercepting Indian traders on the Toronto Portage (via the Humber and Rouge Rivers) before they could cross the lake to trade with the English on the south shore of Lake Ontario at Fort Oswego (Brown 1983:7).

After a string of defeats at the hands of the British during the Seven Years War (1756-1763), the French burned and abandoned Fort Rouille in 1759 (Careless 1984:9).

Founding the Town of York

Immediately following British hegemony in the Canadas at the conclusion of the Seven Years War, settlement in the Toronto area was limited, although its potential to serve as an effective link in the transportation and communications network associated with the fur trade was widely recognized (Careless 1984:10). A substantial trading post established by Jean Baptiste Rosseau, at the mouth of the Humber, was a notable exception to this trend.

At the conclusion of the American War of Independence (1774-1783), however, the British were forced to recognize the emergence of a new political frontier, one which had to be maintained by a strong military presence. These new developments ultimately led, in 1793, to the founding of both the Town of York, on the west side of the outlet and associated wetlands of the Don River, and of a military establishment further to the west at the mouth of Garrison Creek (one of the numerous watercourses draining the area between the Don and the Humber). Fort York (W6) was intended to control entry to the town's harbour (Careless 1984:11; 19-21).

The Town of York itself formed a compact plot, within the area now bounded by Front, George, Duke and Berkeley Streets (Careless 1984:21). The Government Reserve comprised many acres in the

eastern section of the town and the very first parliament buildings for the colonial government of Upper Canada (E2) were located south of present day Front Street, west of Parliament Street, and were constructed between 1794 and 1797.

The Garrison, on the other hand, maintained control of those lands east of Garrison Creek, between the lakeshore and the present Queen and Peter Streets. After the destruction of most of Fort York and a portion of the Town of York during the War of 1812, the fort was rebuilt between 1813 and 1815 (Benn 1993:69-70). Shortly thereafter, plans were laid for improved defences including a new Fort (to complement the existing complex) to the southwest. In the 1830s, the plan for a New Fort (W3) was rendered on maps and in 1842 several structures were built within the palisades around three sides. All were encircled around a large parade square. Despite the opening of the New Fort however, Fort York continued to be an important part of military life in the city.

Early Industry on the Waterfront

While the growth and development of the civilian town continued throughout the early nineteenth century, expanding inland to the present Queen Street by the 1830s, with additional lots having been surveyed as far north as Bloor Street, use of the waterfront remained restricted to commercial and transportation functions. A public walk along York's waterfront, known as the Esplanade, was established by a private trust in 1818, however, this facility was never tangibly developed for pedestrian use (Careless 1984:94). Harbour facilities, such as commercial wharves and piers, were constructed at several locations to the east of John Street. By 1823, four wharves were present along the shoreline, increasing in number to seven by 1841 (Historica Research Limited 1989:51). West of John Street, the British military continued to dominate use of the waterfront, erecting the Navy, King's and Queen's Wharves (W8) as well as a Commissariat Wharf with a substantial complex of related storage buildings at the foot of John Street, possibly as early as 1800 (Brown Associates Limited 1988:2; Historica Research Limited 1989:50). In general, commercial and industrial development of Toronto's waterfront intensified into the second half of the nineteenth century. East of Yonge Street, a number of large factories were established, including the Gooderham and Worts distillery and its associated wharf east of Parliament Street (E3), and by 1842, in the central portion of the city, seven piers were illustrated along the Toronto shoreline. The entire waterfront area was dotted with small factories and a variety of local service industries (Figure 4).

Figure 4: The city in 1854 before railway building had made its mark on the waterfront (from Careless 1984:70).

The Railway Era

With the coming of the Northern, Great Western, and Grand Trunk railways to Toronto in the 1850s, the waterfront was radically altered, as trackways, terminals, freight stations, utilities and new wharves were erected. These developments also expanded westwards from the original core as the military relinquished its control of the Garrison Reserve west of Peter Street. In this way, the history of Toronto's central waterfront after this time is inextricably linked to the city's railway and industrial history. Between 1850 and 1870, Toronto formed the centre of operations for Canada's earliest railways, whose tracks skirted the southern edge of the city, following the shoreline (ASI 1996c).

The first railway, the Ontario, Simcoe and Huron Railway (renamed the Northern Railway in 1858) opened from Toronto to Aurora in May of 1853. The arrival of the Northern Railway was followed in 1855 by that of the Grand Trunk and the Great Western Railways. The Northern Railway occupied several terminals in Toronto before being absorbed into the Grand Trunk system in 1888 and the company developed a freight handling complex, located approximately 150 metres to the east of the Queen's Wharf (W8). These facilities, which served to integrate the new railways with the existing water transportation networks, were constructed on harbour lakefill undertaken after 1853. The *Northern* was thus the first railway company to engage in filling Toronto's Harbour, beginning a process that would continue until the 1920s (Historica Research 1983:7). By the 1880s, the Northern Railway had constructed four wharves along the edge of the track linking the Northern's wharves to the rest of its system.

The second railway to arrive in Toronto—the Grand Trunk—was to become the most important in the city. The railway entered Toronto from the east, along the lakeshore. The track terminated at the

Don River (due, in all likelihood, to difficulties in negotiating rail access to the harbour via the Esplanade), despite the fact that the company's initial city terminal was located at the Queen's Wharf (Historica Research 1983:7). These difficulties were eventually resolved, and the Grand Trunk obtained a 12 metre right-of-way within the public lands of the Esplanade. Despite its holdings in the vicinity of Queen's Wharf, the Grand Trunk did not initially recognize the continued importance of lake shipping in the transportation of freight. It quickly rectified this oversight, however, by building a dock, which included a grain elevator, and a yard area at the foot of Peter Street (Historica Research 1983:8; 1986:119). By the 1870s, the Grand Trunk had shifted the majority of its facilities to the vicinity of Union Station, leasing its Queen's Wharf terminal to the Toronto Grey and Bruce Railway (Historica Research 1983:8).

The third and final railway of the first era to enter Toronto was the Great Western, entering the city from the west along the lakeshore. The company erected a locomotive terminal and freight shed on the north side of Fort York (W5), before relocating its central facilities to east of Yonge Street, in the mid-1860s (Historica Research 1983:8). By the 1860s, when the railways had completed their first phases of construction, the lakefront in the central portion of the study area had been altered significantly. The majority of railway facilities were located between Fort York and John Street, on land which was relatively inexpensive compared to more desirable areas at the foot of Yonge Street. The most dramatic change of the period was the filling of the harbourfront from Bathurst Street to Parliament associated with the development of the Esplanade (between Spadina and the Don River) as the major rail corridor, despite the fact that it had originally been intended as a public thoroughfare. While the rail companies were insistent upon utilizing the Esplanade to reach the downtown core, and proposed several schemes by which this could be accomplished, much of the task was, in the end, carried out by the City (Historica Research 1989:55).

Late Nineteenth-century Waterfront Development

Commercial and industrial development of Toronto's waterfront intensified during the second half of the nineteenth century and the shoreline between Bathurst and Parliament Streets was altered through the filling of timber cribs constructed for the Esplanade, a right-of-way developed for use by the railways (Historica Research 1989:54) East of Spadina, the original shoreline appears to have been destroyed by levelling and filling operations carried out in the mid- to late nineteenth century.

The lakefilling operations carried out during this period generally used the "crib and fill" technique. Timber cribbing—the recommended widths of which were 15 to 20 feet, set in 11 feet of water, with an additional four feet remaining above the water line—were placed around the perimeter of the area to be filled. The fill used during this first phase of expansion included sewage, municipal waste, material from construction sites and material dredged from the harbour bottom. The latter type of fill may be expected to contain derelict boats, the remains of wharf structures and other marine material (Historica Research 1983; 1986). During this early period, the southern limits of lakefilling and wharf construction were defined by the Old Windmill Line, an arbitrary line, established in 1837, from the Gooderham windmill (E3), at the foot of Parliament Street, west to a prominent headland near the site of Fort Rouillé (*Brown Associates* 1988:4).

By 1865, all three railways possessed right-of-ways along the waterfront, and within a few years, the numerous tracks within the narrow area to the south of Front Street created an exceedingly busy corridor, which caused great inconvenience for harbour traffic. In addition, Canadian Pacific became a major transcontinental carrier in the 1880s and though its lines lay mostly in the northern part of the city, it quickly acquired access to the waterfront, building a variety of facilities including a roundhouse (C1) and associated sheds in the 1890s (Historica Research 1983:23-25).

The evolution of the city's shoreline continued at an even greater pace through the late nineteenth and early twentieth centuries, with the consolidation of the rail systems, and the growth of numerous industrial and commercial operations along the waterfront (Figure 5). In 1893, the area within which construction and filling was permitted in the harbour was extended to a "New Windmill Line." This would provide deep water piers in Toronto's harbour without the need for dredging, as the Great Lakes navigation system was moving to the use of boats with a draft deeper than 10 feet (Historica Research 1989:57).

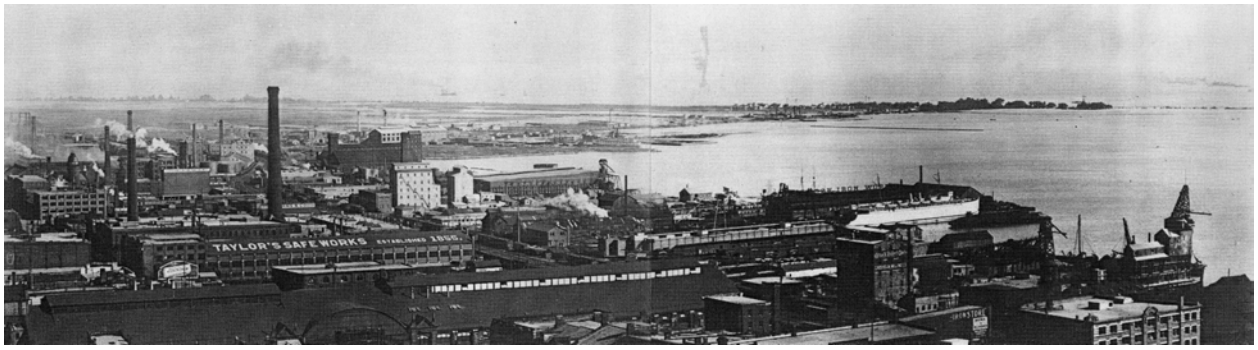


Figure 5: The central waterfront between the Don River and Jarvis Street, 1915 (from Stinson 1990:6)

Consequently, the City of Toronto constructed more timber and rock cribs in the water and placed municipal waste behind them. By the end of 1893, crib work was in place for the construction of Lake Street, and a large amount of fill was dumped at the foot of York Street. The fill was characterized as "all the ashes and other suitable material collected in the section bounded by College, Spadina, and Sherbourne Streets" (Historica Research 1994:58). The final section of cribbing was completed between Bay and Lorne Streets by 1899. The hull of a ship, the *Commodore Jarvis* (C2), was incorporated into the fill (ASI 1992).

Extending the Esplanade was not the only waterfront issue in the late nineteenth century. Ashbridge's Bay to the east, and the Toronto Island, became the foci of a number of development proposals between 1886 and 1909 (Reeves 1992:20). At the time of the English settlement of York, the area which is now called the Port Industrial District was largely a marshy bay at the foot of the Don River. Ashbridge's Bay, as it was known, was bounded on the west by a sandspit and on the south by the peninsula which was later breached to form the Toronto Islands. It is likely that the peninsula and marshes, which extended from the present Woodbine beach in the east to Gibralter Point in the west, were used by the area's aboriginal peoples for hunting and fishing, and settlers continued this tradition; there was a float over the Don River for light crossings (Stinson 1990: 8).

In 1884 the federal government constructed a breakwater along the western side of the sandspit creating a new shape to Toronto's inner harbour, and consolidating the north-south passage to the peninsula— known erroneously as Fisherman's Island. Many local industries were active in this area, and modifications were made to the harbour, the spit and the Don River in order to manage the noxious stew of the lake in the east Bayfront area.

The Twentieth Century: Land Raised and Reclaimed

In the east, land was reclaimed from the Great Marsh after 1912 using timber cribs filled with dredged sand from the bottom of the Lake where more depth was desirable. Over a number of decades the port lands took shape, until the sandspit and peninsula were no longer recognizable as features. Another project of land reclamation to affect the study area was begun in 1916 by the Toronto Harbour Commission. It involved the construction of a harbour head wall that extended between the Don River and Bay Street, and marked the new southerly extension of the Toronto shoreline approximately 335 metres south of Lake Street (Terraprobe 1995:3). The area behind (north of) the wall was filled in with sediments dredged from the harbour floor, and the project was completed in stages. The process would not have been completed until 1926, the period that the water lots west of Bay Street in front of the Harbour Square Wharf were filled (Historica Research 1989:63). It was during this time that Lakeshore Boulevard was created.

The final major project affecting the lakeshore (prior to the construction of the Gardiner Expressway and the Leslie spit in the 1960s) was the separation of grades for road and rail traffic. Along the railway corridor, at all crossings, pedestrian and carriage traffic was blocked for long periods by regular train movement and the switching of trains at freight sheds. Although several bridges were built to take traffic over the railway corridor, including the York Street bridge, these were only a temporary solution. In the early twentieth century, plans were developed to raise the railway corridor above the roads by placing it on top of an embankment. The design, adopted during the 1920s, incorporated an embankment created from fill that rose approximately 17 feet above the grade of the existing track (Historica Research 1989:64). Generally, the embankments were constructed from temporary wooden trestles with a rail line on top, and the fill was dumped from the railway cars (ASI 1992).

The grade separation was designed to take place between Bathurst Street and the Don River. While Spadina Avenue and Bathurst Street crossed the rail corridors by means of bridges, the major thoroughfares to the east utilized road subways. This design required a major campaign of filling along the waterfront, in order to raise the tracks approximately five metres above the existing grade. The harbour fill that was used to raise the elevation of the railway corridors was composed of material from borrow pits located in Scarborough, as well as dredged from the harbour (Historica Research 1989:64). Much of this work was undertaken by the Toronto Harbour Commission, which also extended the shoreline somewhat south of the area required by the railways, in order to provide additional, new industrial land. These costly and time-consuming operations were not completed until 1929 (Historica Research 1983:57-58; ASI 1992).

Following these major landscape alterations, Canadian National constructed its Spadina Yard, overlying the previous rail yards. Additional steam and water distribution lines and local stormwater catchbasins formed an elaborate collection of utilities on adjacent lands (Brown Associates 1988:9).

2.4 Conclusion

Thus the present shoreline of the harbour was achieved during the 1920s, pushing the active waterfront well to the south of the original circa 3000 B.C. shoreline. Concerted efforts to expand the lakefront area available for development, through both private and municipal lakefilling operations during the development of the transportation and commercial industries, has vastly altered the original shape of Toronto's waterfront. This process has created a succession of shorelines, each of which preserves the buried relics of a specific period of Toronto's precontact, military, commercial, industrial and transportation histories.

3.0 SITE INVENTORY

3.1 Introduction

Toronto's Central Waterfront has evolved and expanded with the city itself. As Section 2 outlined, much of the present land area is the result of human construction, including lakefill operations linked to industrial development and transportation. Between the 1830s and the 1930s the shoreline changed dramatically, and subsequent development has further altered the form and character of the landscape. As a result, many of the area's heritage resources—particularly those of an archaeological nature—lie buried in fill or encased in concrete. Nevertheless, recent excavations, site monitoring programs and heritage resource studies point to the presence of a variety of sites containing archaeological potential.

The following inventory is divided into geographic sections, with Sections 3.2, 3.3, 3.4 and 3.5 covering the western, central, eastern and islands portions of the study area respectively. Each entry includes a brief history of the identified feature or features, as well as a summary of related archaeological investigations to date. In all cases, the potential contribution of archaeological investigation to our understanding of the area's pre- and post-contact history will be indicated.

The site numbers correspond to those used on the large scale maps of the geographic portions of the study area. These maps also identify the various levels of archaeological potential found throughout the study area. Section 3.6 provides a discussion of these potential zones and their implications.

3.2 Toronto Waterfront: West

Over the course of time, the western portion of Toronto's waterfront has been altered by both environmental and human activities. Early mapping indicates that prior to human modifications, the position of the lakeshore varied from approximately 50 to 150 metres to the south of the present alignment of Front Street. Consequently, the original shoreline of Toronto Harbour lies buried beneath the present railway tracks in that portion of the study area west of Spadina. In most areas, evidence of pre-contact occupation would likely have been destroyed by a combination of rising water levels prior to circa 3000 B.C. and historic developments disturbing the original topography since then (ASI 1992; Historica Research Limited 1989). However, some areas of modest development near the original shoreline have been identified as having pre-contact potential and these, along with unexamined and known features associated with the early European period of military occupation and industrialization, have been numbered from W1 to W8.

This section contains site identifications and historic detail on those properties within the portion of the study area bounded roughly by Jameson Avenue to the west and Spadina Avenue to the east (Figure 6).

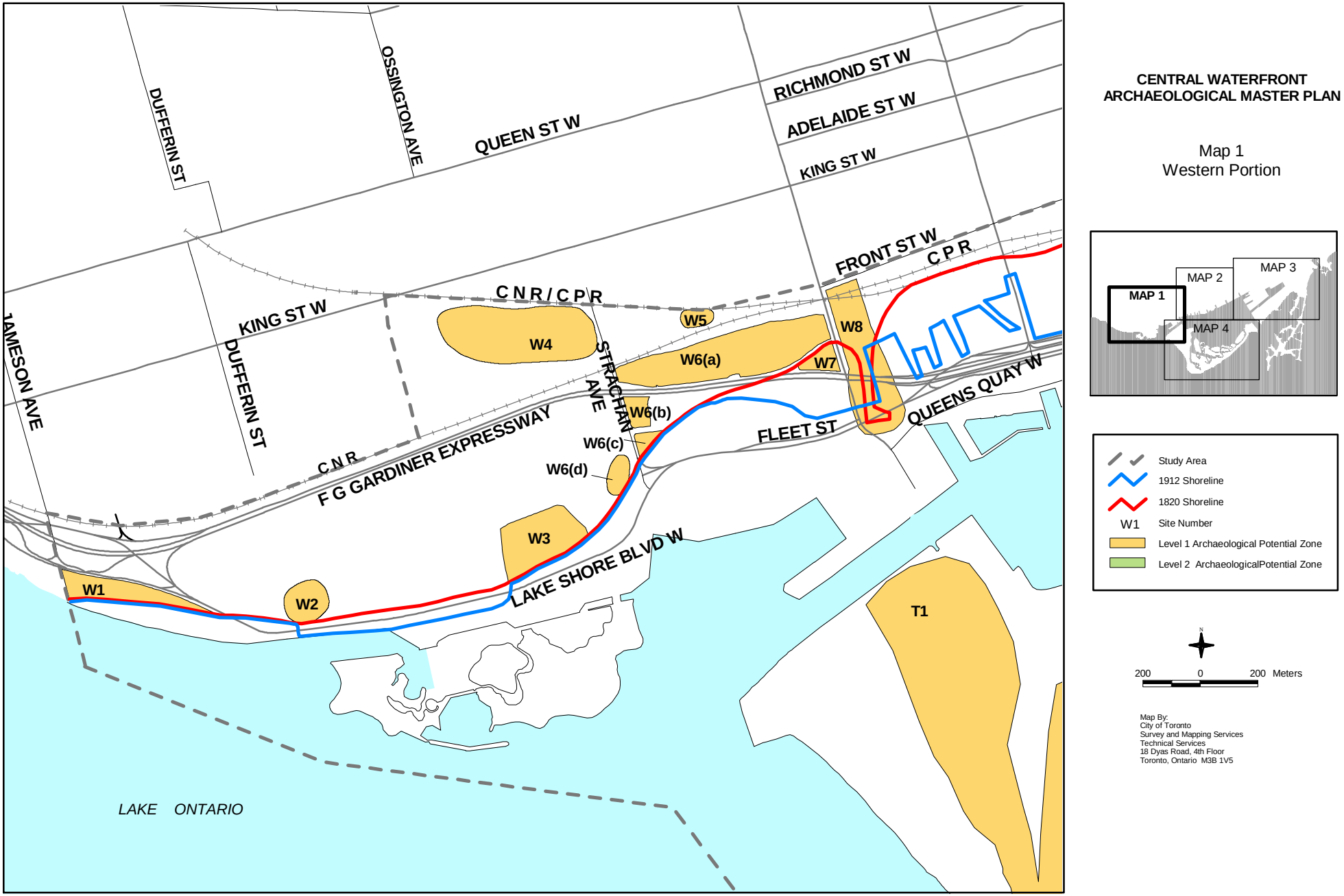


Figure 6: The West Toronto Waterfront: Site Inventory

W1 Western Lakeshore Parcel

Located on the original pre-1820 shoreline, this parcel of land in the northern half of Marilyn Bell Park has both precontact and historic potential.

Potable water is arguably the single most important resource necessary for any extended human occupation or settlement, and is the most commonly used variable for predictive modelling of site location for the southern Ontario region. The Ministry of Culture Primer on Archaeology, Land Use Planning and Development in Ontario (1997:12-13) stipulates that undisturbed lands within 300 metres of a primary water source or 200 metres of a secondary water source, are considered to be of archaeological potential. Unlike other areas of the waterfront, where historic development activities have significantly disturbed the topography, this compact area has undergone comparatively modest change, with its southern border falling along the pre-nineteenth century shoreline (Figure 7).

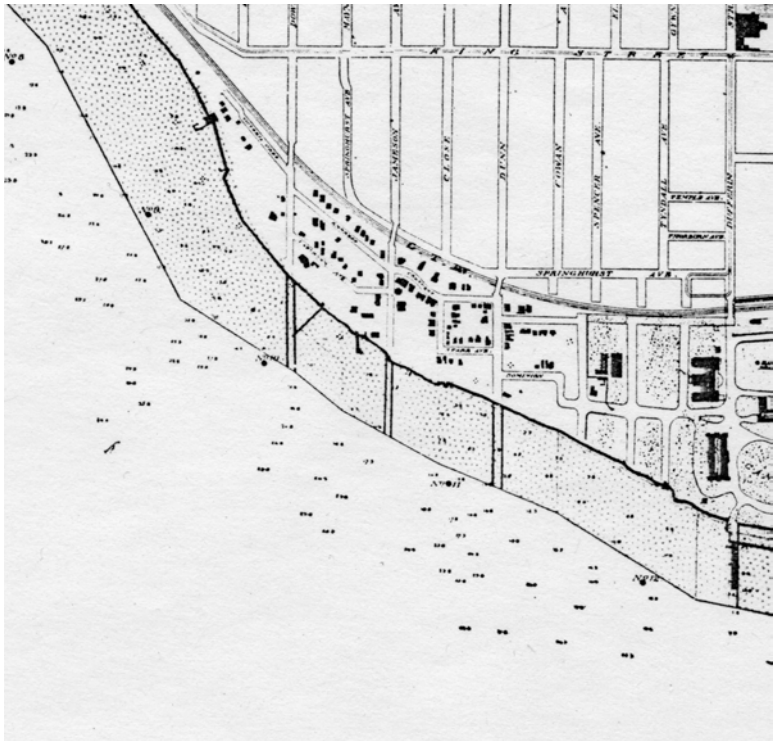


Figure 7: The Western Lakeshore Parcel (W1). From The Toronto Harbourfront Commissioners Waterfront Development (1912).

As Section 2.2 outlined, the early (pre-fill) lakeshore is believed to have stabilized circa 3000 B.C. Prior to this date, the shoreline lay further to the south. Although evidence of occupation earlier than this benchmark will have, in all likelihood, been destroyed by rising water levels, there is the potential for recovery of pre-contact material post-dating it.

In addition to the pre-contact potential of W1 there is also the possibility of recovering material remains of early Toronto cottage residences located on this site during the nineteenth and early twentieth centuries.

W2 Fort Rouillé

Summary History

Fort Rouillé was a small, wooden trading post built by the French in 1751, as an outstation to Fort Niagara. (Brown 1983: 7). It sat on the edge of a slight promontory overlooking the original Lake Ontario shoreline. The surrounding mixed deciduous forest was cleared for construction purposes

and to create an unobstructed view around the fort (Brown 1982:86). The French had established a trading post in the area decades earlier and the new fort, three miles east of the Humber river, was intended to strengthen the chain of forts protecting France's fledgling empire, and to facilitate increased trade. The entire site is estimated to have covered from 15 to 20 acres, though the outpost itself was quite small. An official report for 1754 tells that the garrison consisted of one officer, two sergeants, four soldiers and a storekeeper. Some labourers may also have lived in or near the site (Brown 1982: 10). By 1759, the number of soldiers had increased to 15, and a baker and blacksmith had also joined the garrison staff. After the fall of Fort Niagara on July 25, 1759, the French burnt and abandoned Fort Rouille, having destroyed any items of use (Brown 1982: 11).

The rough-sawn plank palisades were built in the French style of the time, on a square plan with pointed bastions projecting from each corner. They enclosed five buildings whose inward facing sides formed a small Place d'Armes (an area usually centrally located where troops were assembled for drill and inspection). None of the buildings were placed on stone foundations. Sills and floorboards were laid directly on the clay ground (Brown 1982:86). The narrow gate of the fort faced west and was flanked by the Guard House/Barracks and the Commandant's Quarters. Opposite to the gate was the store in which items were traded with local people. A building on the north side of the fort has been suggested as the blacksmith's house but no evidence was found to support this during a 1982 excavation. A building to the south is suggested to be a baker's house with an oven in or near the southeast bastion. To the north of the fort, protected by the bastions, were two to four structures (Brown 1982:86). A village is believed to have existed farther north, with a burial ground located north of the village.

Archaeological Potential

Fort Rouillé is located near the foot of present day Dufferin Street. A monument, sitting within the Place d'Armes and touching the southernmost structure marks the site. The actual boundaries of the fort have been determined through archaeological fieldwork (and they were found to correspond exactly with a land survey done by Augustus Jones two hundred years ago). Between 1982 and 1984 an archaeological excavation was conducted on the fort (Figure 8), adding to work that had already been done in 1980 on the area along the northern edge of the perimeter. Details of the distinctively French Canadian construction style of the site's buildings, as well as a discussion of some of the artifacts discovered in the subsurface layers can be found in Don Brown's excavation summary (Brown 1982:86-7). Work completed at that time added substantially to our understanding of the fort's form and functions—particularly the collection and comparison of historical documents, maps and archaeological reports. However, the entire site, including features to the north, has yet to be fully excavated.

Chief amongst those areas of interest includes the burial ground. (This cemetery should not be confused with the Fort York cemetery, originally located well to the north of this site but still within the grounds of the CNE). Brown makes reference to J. Ross Robertson's 1896 work, *Landmarks of Toronto*, in which Robertson relates the discovery in 1891 of a cemetery, some 100 yards (91 metres) north of the present monument during the course of excavations in Exhibition Park. But,

details concerning the relocation of these graves, their number, and a description of the remains are unknown (Brown: 1982: 20). Nevertheless, if burials related to the French fort are still extant within the C.N.E. grounds in this area, they would represent some of the earliest European gravesites in the region.

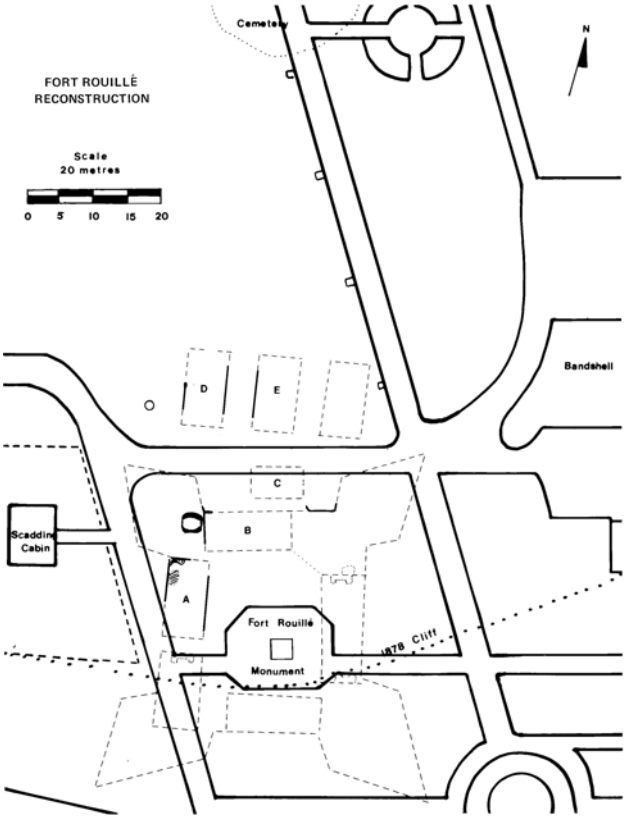


Figure 8: Fort Rouillé (W2). From Brown (1982: Figure 22)

Though it is not currently known how many of the French inhabitants and their allies were ever buried on the site, or how many graves remain to be uncovered, if any, Brown concludes that it should not be assumed that all of the remains were uncovered in 1891. No excavations for the cemetery as a whole were ever made, though the Toronto Historical Board was made aware of the location should work crews in the future excavate the area. It should be noted, however, that 1955 landfilling operations and the building of the Geodesic Dome in the early 1970s would have covered any evidence, making remote sensing survey impossible (Brown 1982: 20).

In regard to other site components, most of the store has probably been destroyed by activities associated with the CNE landscaping, including the construction of a storm drain, the growth of a massive chestnut tree and earlier archaeological investigations conducted in the 1960s. However, part of the Commandant's Quarters and the gate still lie under the gardens and sidewalk, the northeast bastions are still potentially recoverable under the baseline sidewalk and two or possibly three outbuildings lie under and north of this same sidewalk (Brown 1982:87).

It should be noted that the south half of the fort, including two bastions, the southern portion of the store, possibly the Commandant's House and all of the building tentatively called the Baker's House were obliterated by cliff erosion and stabilization efforts made in the 1870s. Approximately 20% of the fort and outlying buildings has been exposed, 45% is thought to have been destroyed over the years and 30% is still potentially recoverable—although much is lying under modern sidewalks and the monument platform (Brown 1982:87).

Future work must keep in mind Donald Brown's assessment that such labour will likely result in the recovery of few artifacts, less than spectacular features, stains and remnants. Yet, as he reminds us, the existence of those features already recovered demonstrate "that traces of Toronto's oldest European inhabitants and its oldest Aboriginal inhabitants are still to be found and should be protected from all excavations on the site deeper than one metre" (Brown 1982:88).

W3 The New Fort

Summary History

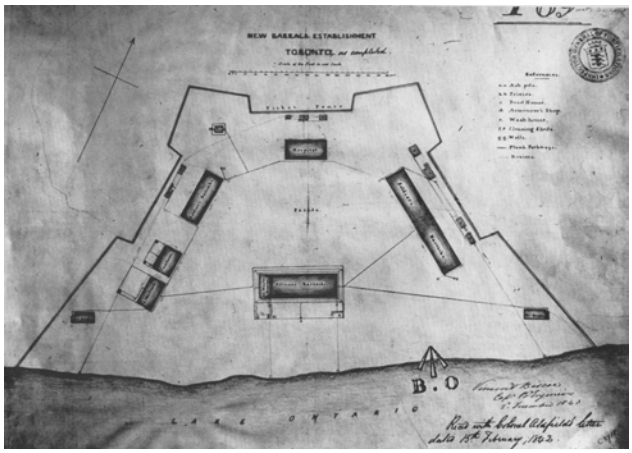


Figure 9: The New Fort (W3) as built by 1842 (from Benn 1983:43).

After the destruction of most of Fort York and some of the adjacent town of York in April 1813, plans were laid for improved defences. Several layouts for a new fort, to be situated due east of the Fort Rouillé ruins (W2) and west southwest of the Old Fort (W6), were put forward. In 1841, the new barracks establishment, also known as the New Fort to distinguish it from Fort York (which had been rebuilt) was completed, and it became the principal barracks for the Toronto Garrison at that time. Intended to house 300 men, the more substantial buildings were constructed of limestone and centred around a parade square (Figure 9). By 1842, several structures were built within the palisades around three sides, including an officer's barracks, a soldiers barracks, an armourer's shop, a canteen, a wash house, cleaning sheds, a hospital and a dead house. The landward side was enclosed by an 8 foot high cedar picket, with a wrought iron entrance gate placed on the east side where the road leading to Fort York was situated. The officers' barracks of the New Fort were later incorporated into what is now the Toronto Historical Board's Marine Museum. (ASI 1995a:24).

In 1861, work began on a northern annex to the New Fort for stabling and barracks for the Royal Artillery. Photographs in the Fort York library and military correspondence relating to their construction suggest that they were primarily wooden buildings necessary for a mounted artillery unit, including three ranges of stabling, a shoeing shed, wheeler and collar makers' shops and harness rooms. The larger stable with attached harness room was probably located at the south end of the annex, the second stable/harness room was along the eastern perimeter and the gun shed was probably the narrower building on the north side of the annex perimeter. The farrier, wheelwright and harness maker would have been located in the smaller service buildings along the east and north sides. (ASI 1995a:26).

The new barracks hut contained one large room for 60 men, four rooms for sergeants, a canteen and a hospital. A second hut for 80 men and four sergeants was authorized for immediate construction in 1866 in anticipation of the arrival of members of the 4th Battalion of the Royal Artillery. These barracks were probably located on the west side of the New Fort annex. An 1867 plan illustrated the annex as an enclosed rectangular area with buildings arranged around the perimeter connected by plank footpaths (ASI 1995a:24, 26).

The New Fort was officially transferred to the government of Canada on July 15, 1870, however, after the departure of the British troops, the Department of Militia and Defence found little

immediate use for the buildings. In 1874, the barracks and stables were briefly occupied by a contingent of men recruited for the North West Mounted Police (Sendzikas 1990:40, 46). However, it was not until 1883 that a more permanent solution was worked out with regards to the empty garrison. At that time, a new infantry and cavalry school was proposed and new occupants came in April of 1884. Among the occupants of the New Fort were the Royal Artillery, The Royal Canadian Regiment and the Royal Canadian Dragoons, who were established at Toronto in 1893, the year the New Fort was christened the Stanley Barracks (Sendzikas 1990: 62, 70-71; (ASI 1995a:26).

In 1878, the City of Toronto entered into a lease for 52 acres in the western portion of the Garrison Reserve, and made this the site of their first annual Toronto Exhibition held in 1879. In order to expand the scope of the exhibition, now known as the Canadian National Exhibition, the City, in 1903, purchased the lands and buildings on the Garrison from the Department of Militia and Defence, including the Stanley Barracks and Fort York (Sendzikas 1990:77).

During the First and Second World Wars, the area reverted back to its military origins when the Exhibition grounds were used by the Canadian military as a winter training camp, a mobilization centre where troops were assembled before they went overseas, an internment camp for enemy aliens and finally a demobilization centre for returning troops (Sendzikas 1990:84, 90).

Archaeological Potential

The first edition of Goad's Insurance Plan of the City of Toronto produced in 1884 indicated that none of the buildings in the annex had been removed since 1867 (Goad 1884:Plate 20). However, the fourth revised plan of 1903 showed that the wooden barracks along the west side had been demolished, along with one of the northern service buildings. This coincided with the sale of the land to the City of Toronto, which allowed the CNE association to construct new buildings and change the physical layout of the grounds substantially between 1902 and 1912 (Lorimer 1973:17). A streetcar loop was constructed on the grounds and by 1910 all of the military buildings north of the large stable range had been removed (ASI 1995a:27).

Subsequent alterations to the property were made during the First and Second World Wars while, in the inter-war period, the CNE implemented plans for a new program of buildings, a roadway and an entrance gate at the eastern end. The military occupied the "Exhibition Camp" until June 1, 1946, after which time the new and old military buildings were converted into emergency housing. Between 1951 and 1953 all of the wooden buildings making up Stanley Barracks as well as all of the limestone buildings, except the Officers' barracks (later occupied by the Marine museum), were demolished (ASI 1995a:29). Figure 10 provides a summary of the various structures built within the New Fort over the century of its use.

Thus, owing to large amounts of infrastructure, development and demolition in the area, features of the New Fort would have to have survived numerous land use changes. However, the success of Historic Horizon Inc.'s (1995) campaign of bore hole testing, which located several New Fort structures to the south of Princes' Boulevard, and the field investigations completed by Archaeological Services Inc. from 1995 to 1996 (ASI 1995a, 1998a), which revealed sub-surface

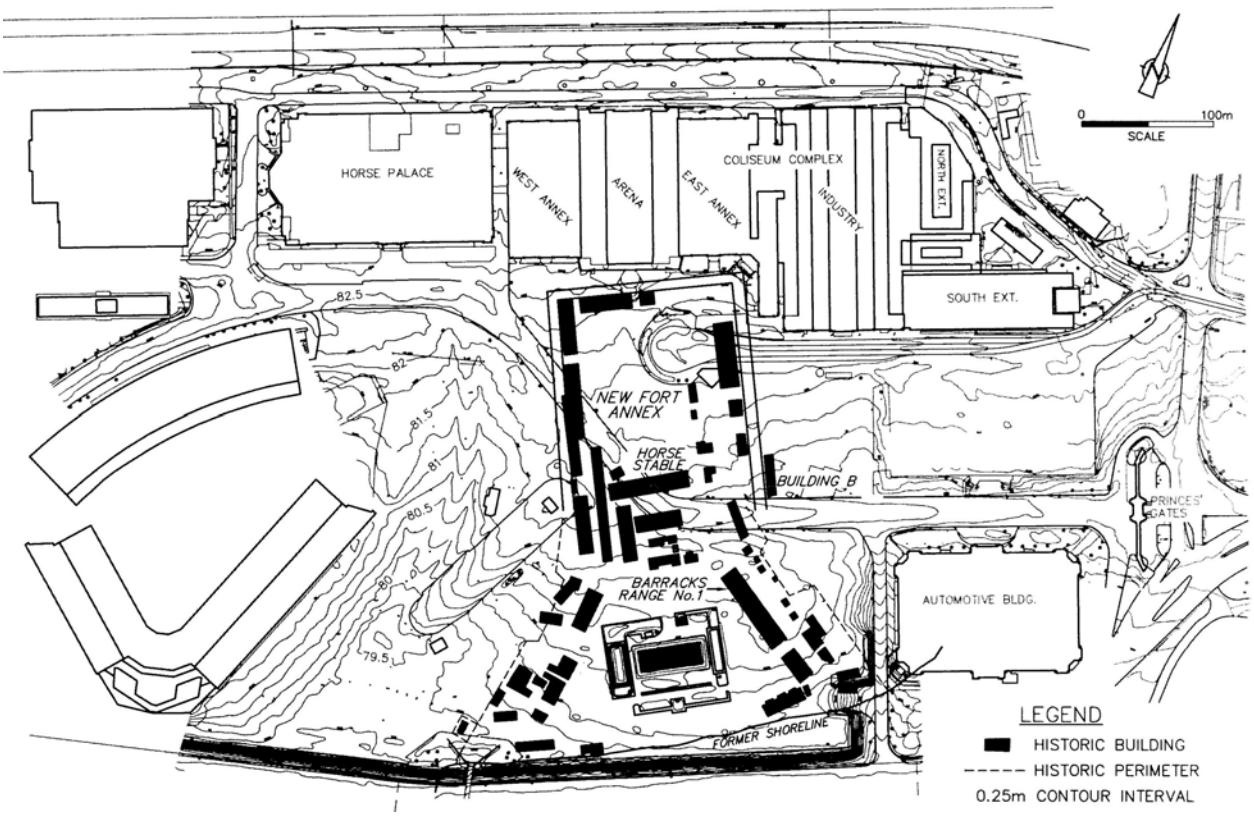


Figure 10: Composite map of the of the New Fort (W3), circa 1840-1950 within the context of the CNE grounds (from ASI 1995a).

remnants associated with the New Fort and its stable annex, indicate that there is still archaeological potential in the area.

W4 Central Prison

Summary History

Construction for Toronto's Central Prison (on Strachan Avenue south of King Street, between two rail corridors north of the New Fort) began in 1871 under the supervision of official government architect Kivas Tully. Intended to serve the reform impulses of the period (led in part by Attorney General Langmuir) the new institution was a three-storey building consisting of a main section one hundred feet wide, with wings on each side and large workshops in the rear of each wing (Figure 11). There were cells for 336 prisoners (Oliver 1998:406). The prison was designed as an industrial facility and the first industry to be served was the Canada Car Company, which manufactured

railway cars. Shortly after the prison's opening, workshops were completed and machinery was installed to Canada Car specifications. This central, if not exclusive, place of prison labour followed the correctional ethos of the time. Hard labour, mixed with military style discipline, was thought to provide both punishment and training, while instilling a healthy work ethic. Also, industrial work raised money for the prison (Oliver 1998:407).

Most of the men hired as guards had previous police or military training, and the practice of arming guards with rifles or handguns strengthened the prison's military appearance. (Oliver 1998:406). By the 1880s, Central Prison was known for its brutality. Its first warden, an alcoholic ex-military officer and chief of the Toronto police, was accused of sanctioning extreme beatings, withholding medical treatment, and supporting undocumented "nocturnal" burials. Successive Wardens adopted a less disciplinarian approach but the guards remained brutal.

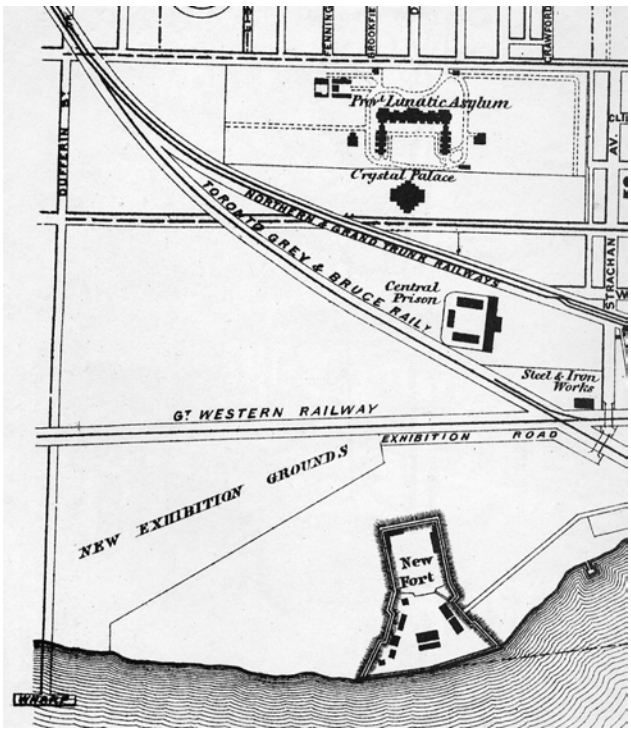


Figure 11: The Central Prison (W4) as depicted in the 1878 *Illustrated Historical Atlas of York County*.

In 1878, the prison was connected to the Toronto water supply and it had electricity by 1883. Prison labour built many of the surrounding streets and a commercially operated brickyard, and prisoners developed farms and gardens, following the example of the Provincial Lunatic Asylum. However, the operation of Toronto's Central Prison was short-lived. Constantly beset with financial and labour problems —as well as by rumours of gross brutality—its closure in 1915 signaled the failure of the institution to achieve any of its objectives (Oliver 1998:407).

For a brief period the buildings remained closed and vacant, but between 1915 and 1919, the site was taken over by the military as a storage facility, after which time it was demolished.

Archaeological Potential

Most of the property is currently used for industrial purposes, although part of the prison is still intact and visible, including the chapel and part of a wall of one of the workshops. Subsurface features likely to be encountered include the original foundation of the entire prison complex, as well as human remains associated with prison burials. Further historic research may help to determine the location of these grave sites, though precise co-ordinates within the yard walls of nineteenth century prisons are often undocumented—particularly in this case, when the deaths themselves may have gone unrecorded.

The last major works project undertaken at the prison was a huge reservoir for 400,000 gallons of water. Built in 1898 of prison-made bricks, the reservoir was used until 1936 and is assumed to exist today. Finally, the prison lands were heavily industrialized after the turn of the century, with parcels owned by the Inglis and Massey companies to name a few. Industrial remains constitute other potential archaeological resources on this site.

It should also be noted that in the years prior to prison construction, the grounds were within the battlefield area surrounding Fort York (W6), with burials potentially extant from the Garrison period.

W5 Great Western Railway Engine House and Turntable

While much of the Garrison Reserve excluding Fort York had been subdivided and sold by the military by 1836, intensive development of the area around the fort did not begin until the arrival of the railways in the 1850s. As Section 2.3 outlines, the construction of railway lines and associated buildings resulted in substantial alterations throughout the waterfront area.

The Great Western Railway was the third rail company to enter the Toronto market. The GWR's line into the city was completed in 1855, originally operating as a branch line from Hamilton. The line entered from the west along the lakeshore and passenger facilities were shared with the Grand Trunk in Union Station. The Great Western's yards were the furthest west of all three companies. A locomotive terminal and freight shed were erected on the north side of Fort York (Figure 12). The engine house and turntable were at the western end of the yard on lands encompassed by W5.

It is entirely possible that archaeological remnants of these facilities have survived.

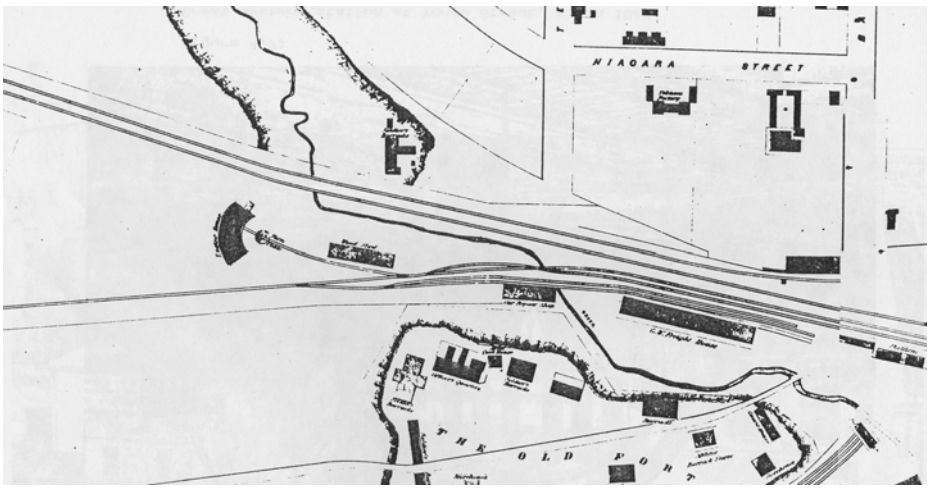


Figure 12: The Great Western Railway Terminal (W5) in 1858 (City of Toronto Archives)

W6 Old Fort York

The present site of Fort York constitutes one of the most identifiable and significant heritage resources in the City of Toronto, forming a valuable cultural landscape.

Summary History

To place Fort York within its historical context, it is necessary to understand the importance of its location vis a vis the original shoreline of Lake Ontario in the 18th century. At that time, the fort was right at the water's edge, on land obtained by the British government during the first Toronto Purchase, a treaty negotiated in 1787 with the Mississauga people to facilitate permanent European settlement. However, twentieth century lakefilling activities in the harbour have extended the shoreline several hundred metres into Lake Ontario, placing Fort York today in a much-changed landscape.

The fort was originally placed within the Garrison Reserve, established in 1793 when Lieutenant-Governor Simcoe founded both the Town of York and the military base of Fort York. The location of York from the outset was determined by its proposed function as the military and naval arsenal of the new province of Upper Canada. Governor Simcoe believed that a war with the United States was both inevitable and imminent (Firth 1962:xli), and in addition to its position on the overland route to Lake Huron and the northwest fur trade, York's excellent harbour and its defensibility became important considerations. The fort was necessary in order to guard what was then the only entrance into Toronto Harbour.

The Queen's Rangers were brought to the site in July of 1793 to begin the process of clearing the land and building a garrison (Firth 1962:xxxiii). The first log military barracks, or "Hutt" as they were termed, were built on the west side of Garrison Creek, and the mouth of the Creek was widened to accommodate bateaux and a wharf. An early view of the Garrison, illustrated by Elizabeth Simcoe in 1796, depicted the steeply sloping shore of the harbour entry (Careless 1984:20). The creek has since been filled in, and the Bathurst Street right-of-way immediately east of Fort York effectively extends where the creek once flowed (ASI 1992:8).

Simcoe's plans for the fortification of York were never fully approved by the Governor in Chief, Lord Dorchester, and little more could be accomplished by the time Simcoe returned to England in 1796. In that year, the Queen's Rangers were sent to other posts, and the new administrator, Peter Russell, found it difficult to continue the tasks of surveying, transporting provisions and building with a reduced garrison at York (Firth 1962:xlii). The Rangers returned in 1797 and it became necessary to construct additional barracks. Russell also ordered that a blockhouse be built on the east side of Garrison Creek which meant that the fortifications at York spanned both sides of the creek (see W8). This blockhouse has been identified as a possible archaeological feature (Brown 1986:23-24; ASI 1992).

The log buildings constructed in 1793 were never meant to be permanent structures, and in 1802 a report on the state of public works in Upper Canada noted that "the Old Hutts on the West Side of the Creek [were] condemned, and ordered to be pulled down" (Firth 1962:72). The report also noted

that seven officers' buildings, two hospital buildings, one bakehouse, one canteen, eight barracks, one guardhouse, one magazine, one carriage and engine shed, one provision storehouse and the Indian and Commissary's store were present at the military post at York (Firth 1962:71-72). The official residence of the Lieutenant-Governor of Upper Canada, known as Government House, was built on the west side of Garrison Creek, on the site of present-day Fort York (Benn 1984:10).

It has been suggested that the best record of the garrison's layout can be found in three sketches by Lt. Sempronius Stretton (Firth 1962:xliii). The *View of the Garrison at Toronto or York Upper Canada, March 11, 1805* shows, among other features, the blockhouse and numerous barracks within a palisade on the east side of the creek (Figure 13). In addition, there was a building in the Garrison Creek ravine just west of the palisade that would also lie near the eastern border of section W6(a). This has been identified as a 16-man barracks (Brown 1986:23), and may still be extant, buried under the fill that constitutes the Bathurst Street right-of-way (ASI 1992).

Today's west wall, moat and circular battery were built in 1811 and in 1812, when Simcoe's plan to turn York into a naval establishment was revived by Sir Isaac Brock (Firth 1962:xliv). The site of present day Fort York did not assume its familiar shape until after the makeshift garrison on the east side of Garrison Creek was captured by the Americans during the War of 1812. York in fact was occupied by the American army between April 27 and May 1, 1813. In August of that same year the Americans burnt the military establishment, including Government House. The current fort was constructed between late August 1813 and 1815.

Consideration of the nineteenth century military use of this portion of the original shoreline must also take into account three separate defensive works, often referred to collectively as the Western Battery (ASI 1995a:3). Several maps drafted during the War of 1812 illustrate the Western Battery of the fort east of a stream, at the edge of a steep bank on the lakeshore. It was one of several batteries positioned against vessels entering the harbour. The first western battery was in place prior to the Battle of York in April of 1813 but it was destroyed when a gunpowder magazine exploded. The second Western Battery was rebuilt at or near the site of the old one by November of that year, while the third and final one was erected in the late 1860s. (Benn 1993:50, 54, 116).

Finally, on the *Plan of the Town and Harbour of York* drawn by George Williams, and dated July 27, 1814 two small buildings on the east side of Garrison Creek are labelled "small huts, occupied by Artillerymen and Artificers," and a third building is labelled "Bakehouse". These buildings, along with a blockhouse depicted on an 1813 map, have also been identified as having archaeological potential (see W8) (Brown 1986:23; ASI 1992:21).

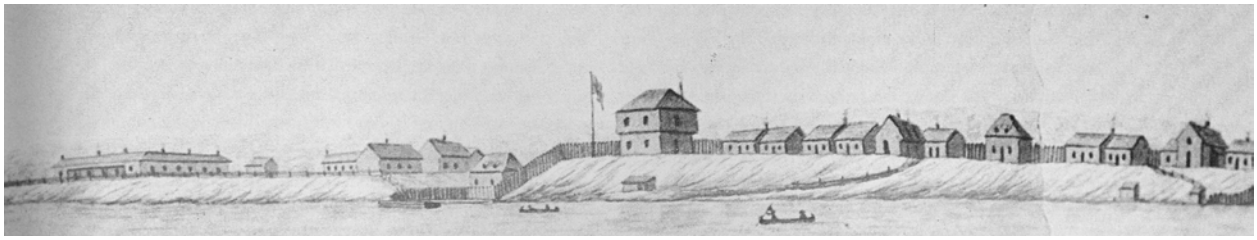


Figure 13: Fort York (W6[a]) in 1805. The structure on the left is Government House (the site of the 1793 fort). The few buildings to its right also likely date to 1793-1794. The depression in the approximate centre of the picture is the Garrison Creek valley. To its right is the main garrison comprising the 1797 blockhouse and palisades (from Benn 1983:43.)

While much of the Garrison Reserve had been subdivided and sold by the military by 1836, intensive development of the area did not begin until the arrival of the railways in the 1850s.

Archaeological Potential

Areas of archaeological potential within site W6 have been sub-divided into four sections, lettered a, b, c and d (note, some features related to Fort York are also present in site W8, The Queen's Wharf and site W4, Central Prison). Each portion comprises a collection of pre-contact and historic attributes. These can be briefly summarized as the following:

Representing the main body of the fort complex, **W6(a)** has been the most studied and well-documented portion of the site. However, a number of features depicted in historic mapping and/or described in communications from the period have yet to be uncovered, including the barracks near Bathurst Street. It should also be noted that land development in the early part of the twentieth century (largely associated with slaughterhouses and the meat-packing industry) created significant disturbance to the eastern edge of W6(a). Thus, material remains will likely be recovered from both historic periods. In 1903, Park-Blackwell Company is known to have demolished the fort's guardhouse, destroyed the southeast bastion and cut down the eastern rampart. In the process, workers also exposed two graves believed to be those of War of 1812 soldiers (Benn 1993:145). The presence of those graves suggests that additional human remains might be recovered from this area, as well as other evidence of military occupation. In particular, some of the dead from the battle of York were buried individually or in small groups along the field of action (from roughly Dowling Avenue in Parkdale to Fort York) and battle debris may also be found at various key battle points. Additional evidence may also be found at the location of a small unarmed earthwork, which was located approximately where Fort York Armouries now stand (assuming it was not located within the current armoury site) (Benn 1993: 62, 50).

W6(b) and **W6(c)** are two areas with similar attributes. The likelihood of recovering material remains from the early York garrison can be inferred from historic mapping and communications of the period. In addition, due to the absence of extensive industrial development on these land parcels over time, and their proximity to the original shoreline, they also have precontact potential.

W6(d) is the conjectural location of the second western battery associated with Fort York. Field investigations to date have yet to reveal the location of this important feature (or any of the other western batteries) though W6(d) is believed to be a likely location for recovery given the narrowing possibilities afforded by previous attempts.

Historic research completed by Historic Horizon Inc. (1995) and ASI (1995a) during the construction of the National Trade Centre on the CNE Grounds revealed that the second battery stood "six hundred yards westward of the present [1813] Garrison," and consisted of a ditch and banquette "enclosed by a cedar Palisade of 10 feet high, so placed as to form loop holes for the infantry to fire through." In addition, a musket proof loop-holed guard house for 40 men was constructed at the northwest angle of the battery (Figure 14).

The second battery appears on numerous maps following the War of 1812, although by March of 1825, the block (or guard) house was reported to be vacant. Nevertheless, the battery earthwork remained a feature in the landscape until land development obscured its location in subsequent years. Thus, subsequent utilization of this portion of the waterfront must also be considered in any attempt to assess the potential integrity of any features related to any of the three western batteries (ASI 1995a:3).

W7 Grand Trunk Railway Roundhouse

While much of the Garrison Reserve, excluding Fort York, had been subdivided and sold by the military by 1836, intensive development of the area around the fort did not begin until the arrival of the railways in the 1850s. As Section 2.2 outlines, the construction of railway lines and associated buildings entailed substantial alterations throughout the waterfront area. The Grand Trunk Railway (later bought up by Canadian Pacific) was the second rail company to enter the Toronto market.

After acquiring the Toronto and Guelph Railway (who were building a line westward from Toronto) the Grand Trunk Railway constructed an engine house with turntable, freight house, smithy, temporary shed, pumping house, carriage house and shed, and a temporary passenger station directly south of the fort on lakefill (Historic Horizon Inc. 1994:6). These facilities (Figure 15) were intended to help Grand Trunk to compete with the Great Western's traffic to the American mid-west,

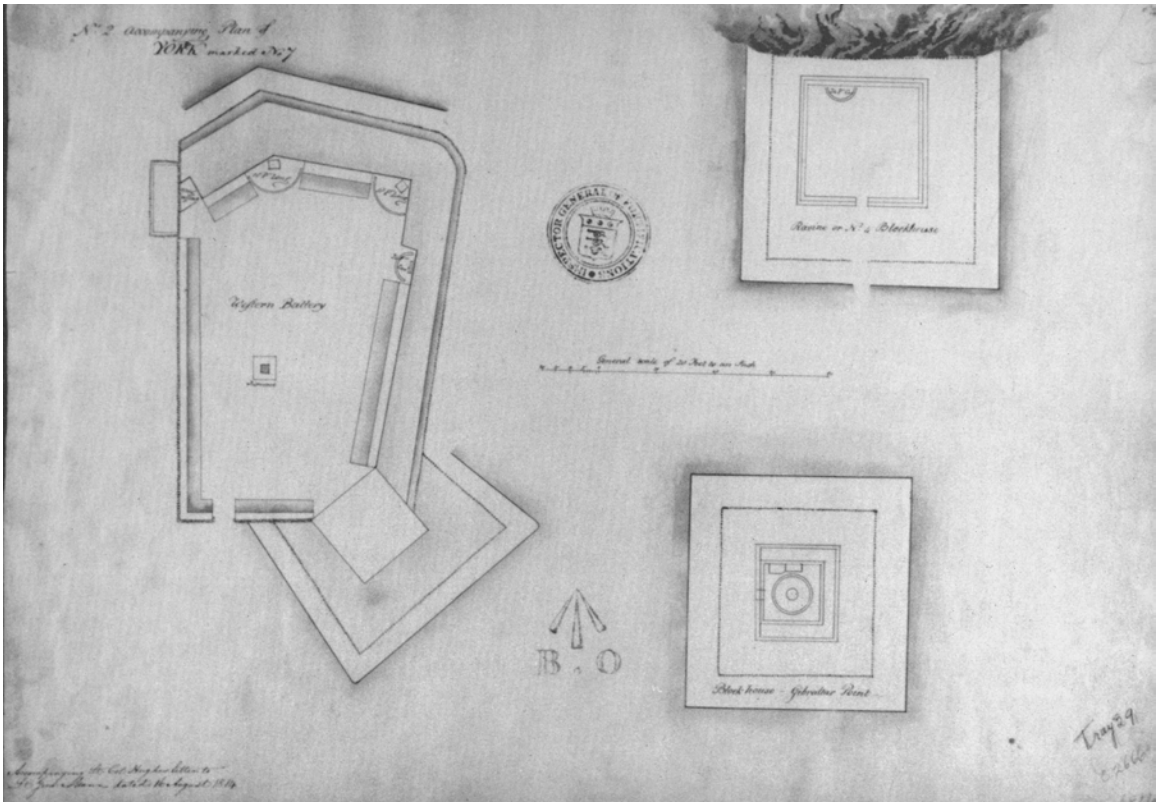


Figure 14: An 1814 plan of various military features. Left: the Western Battery (W6[d]). Upper right: the Ravine Blockhouse (see W8). Lower right: the Gibraltar Point Blockhouse (from Benn 1983:30).

though in 1859 the Grand Trunk re-laid its track from south of Fort York to a new alignment north of the Fort and parallel to the Northern railway lines (Historica Research Limited 1983:7-8).

Railway land use continued into the twentieth century, although the configuration of buildings changed periodically depending on the railway company involved.

Currently, planning initiatives for a new right of way crossing this portion of the study area (Fort York Boulevard) have included a preliminary archaeological assessment. It has been determined that the buried remains of the Grand Trunk roundhouse will likely be impacted by new developments, and bore hole testing in the area will be carried out by ASI. The new road will require re-grading and landscaping which, depending upon the depth of excavation, may reveal nineteenth-century features associated with the wharves and the railway, as well as the ramparts of Old Fort York.

Also related to this land parcel is the land reclamation which occurred south of Fort York, in which a meat packing plant was built at the east end of the fort around 1900. This entailed the demolition of a fort guardhouse, and the destruction of a portion of the southeast bastion and the eastern rampart at which time the work exposed graves believed to be those of War of 1812 soldiers. It was reported that the human remains were carted away with the construction debris (Benn 1993:145). Thus, any excavations in this areas must take into account the possibility of further burial sites.

Several buildings associated with this slaughterhouse business were removed in 1934 during the restoration of Fort York (Historic Horizon 1995:7).

W8 Queen's Wharf

The earliest structures known in site W8 all relate to the military use of the waterfront, and may be characterized as features within the military complex of Fort York (see historical summary for W6). Several such structures, which may survive as archaeological resources, have been identified in and around the historic Queen's Wharf area (Figure 15). These were identified on the basis of various period maps, Stretton's sketches, and a consideration of how the area was altered during the post-1856 railway construction (Brown 1986; ASI 1992:11).

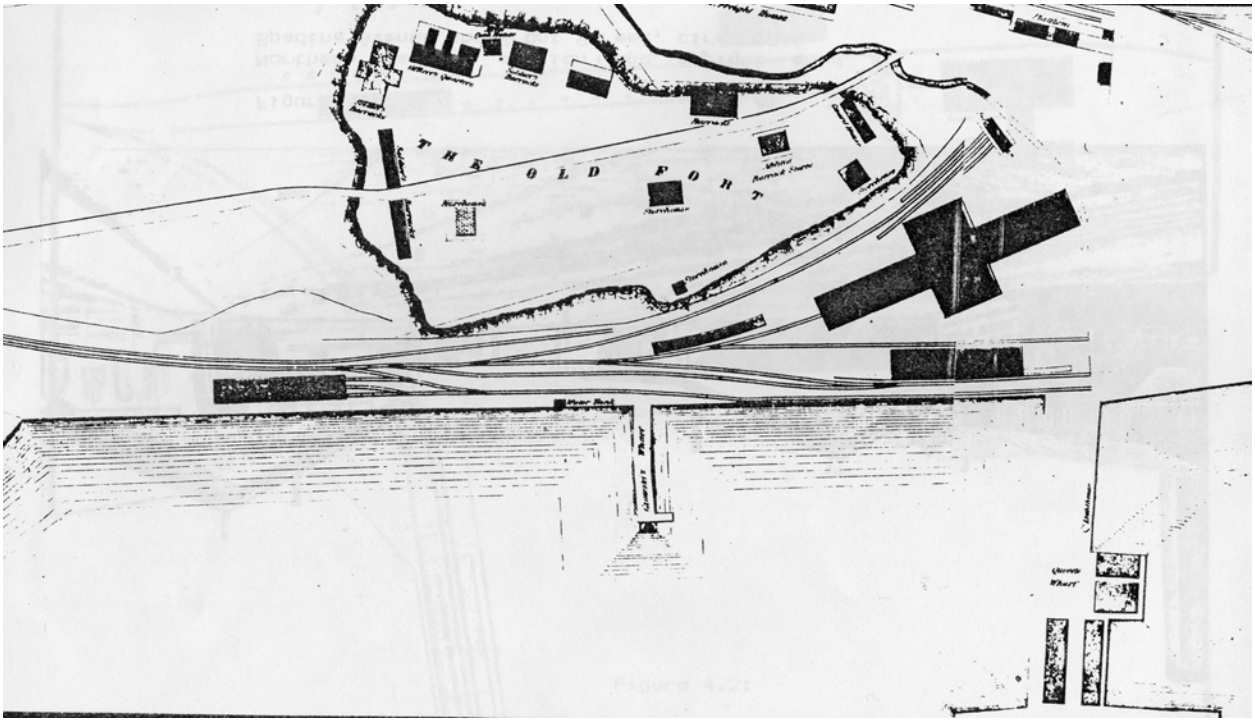


Figure 15: Plan of the Grand Trunk Railway (W7) and Queen's Wharf (W8) (City of Toronto Archives).

It has been suggested that the best record of the garrison's layout can be found in three sketches by Lt. Sempronius Stretton (Firth 1962:xliii). *The View of the Garrison at Toronto or York Upper Canada ... March 11, 1805* shows, among other features, the ravine blockhouse (Figure 14) and numerous barracks within a palisade on the east side of the Garrison creek, which generally follows the present day Bathurst Street right-of-way. Also shown on the *Plan of the Town and Harbour of York* drawn by George Williams, and dated July 27, 1813 are two small buildings on the east side of Garrison Creek which are labelled "small huts, occupied by Artillerymen and Artificers," and a third building labelled "Bakehouse". These buildings, along with a blockhouse depicted on an 1813 map, have also been identified as having archaeological potential in this area (Brown 1986:23).

Following Brown, a 1992 ASI report inventoried the above features as follows:

Blockhouse	
Date:	circa 1797
Description:	Part of a complex of structures representing the second phase of development at Fort York, on the east side of Garrison Creek along the original shoreline. The 1797 blockhouse provided accommodation for 48 men.
Status:	While possibly truncated by post-1856 railway construction, foundations may survive relatively intact. Area currently buried by fill.

Bakehouse

Date: circa 1813 - *c*irca 1835

Description: Part of the second phase of construction of Fort York, the location and function of this building are identified on maps from 1813 to 1835. As a bakehouse is listed among the fort's buildings as early as 1802, however, the structure may be somewhat earlier in date. The building may not have been destroyed by the Americans during their 1813 attack on the fort since the structure lay outside the garrison palisades. By 1834, the building functioned as a temporary "Band Master's Quarters", but was apparently removed during the following year.

Status: Road construction and utility lines have probably destroyed the remains of the building, however, some traces may be preserved under the road bed of the Bathurst Street ramp.

Buildings for Artillerymen and Artificers

Date: circa 1813

Description: These two poorly documented structures form part of the second phase of occupation of the fort, on the east side of Garrison Creek. Available maps indicate that the buildings were "huts for Artillerymen and Artificers", within the study area

Status: Buried under active rail corridor.

Ravine Structure

Date: pre-1803

Description: In the ravine on the east side of Garrison Creek, is a frame structure identified as a 16 man barracks.

Status: The remains of this building are probably relatively undisturbed, lying under 1850s landfill (ASI 1992:21-22)

In addition, it should be noted that after a second period of land reclamation south of Fort York, a meat packing plant was built at the east end of the fort around 1900. This entailed the demolition of a fort guardhouse, and the destruction of a portion of the southeast bastion and the eastern rampart (Benn 1993:145). This work exposed graves believed to be those of War of 1812 soldiers, and it was reported that the human remains were carted away with the construction debris (Benn 1993:145). Thus any excavations undertaken in and around the Bathurst Street right-of-way must take into account the possibility of similar discoveries.

In comparison to the waterfront lands in the central portion of the study area, commercial activity in the west was relatively slow to develop, despite the fact that the military had begun relinquishing its hold on the Garrison Reserve in the 1830s. The Queen's Wharf (1833 - circa 1918), however, was an important facility in the area, serving both commercial and military interests.

The Queen's Wharf was first constructed in 1833, on the eastern side of Garrison Creek's outlet, at the mouth of Toronto Harbour. A smaller wharf on the site was in use from circa 1800 to circa 1813. In addition to functioning as an important military and commercial facility, the wharf was also intended to reduce the silting which plagued Toronto's ports. The wharf was lengthened, in 1837, and was also further widened, during the late 1850s and early 1860s, in an effort to rebuild its decaying facilities (Brown 1986:25; Careless 1984:86).

Shipping activities were confined to the eastern and southern sides of the wharf while silt and sewage discharge, from the now channelled Garrison Creek, were allowed to accumulate along the west side. The east side of the wharf was filled in 1890 by the Grand Trunk Railway (Historica

Research 1983). A further phase of filling occurred in 1913 which extended the shoreline to the immediate west of the wharf. Lakefilling continued throughout the First World War, extending the shoreline as far south as Lakeshore Boulevard, and rendering the Queen's Wharf obsolete as a shipping facility.

Brown has identified the Queen's Wharf as a significant heritage resource (1986:25). Specifically, he states that:

> the edges of the wharf, especially on the north end closest to the shore are probable areas for the accumulation of damaged and discarded goods handled on the wharf. The west side is particularly important. Because this area was allowed to silt-in, it acted as a natural trap for all forms of artifacts from 1833-1890. This wharf was both an important military and commercial structure. A wide cross-section of well preserved mid-nineteenth century items relating to the early days of the City of Toronto can be expected to be recovered here.
>
> The site is currently covered with road and rail routes, an abandoned industrial building, and a vacant lot used for parking. Although the wharf was one of many to be built along the shoreline it was the latest and largest of all the military-built wharves. It has both naval and industrial significance and is one of the few wharves left along the original shoreline to be adequately documented as a feature in the landscape.

3.3 Toronto Waterfront: Central

As section 2.2 outlined, the central portion of the study area (Figure 16) is one in which massive landscape changes have occurred, with the most dramatic changes accompanying the development of railways and industry in the mid- to late nineteenth century, when much effort was made to expand the Toronto shoreline to accommodate new infrastructures. This process vastly altered the original shape of Toronto's waterfront and created a succession of shorelines, each of which preserves the buried relics of a specific period of Toronto's history.

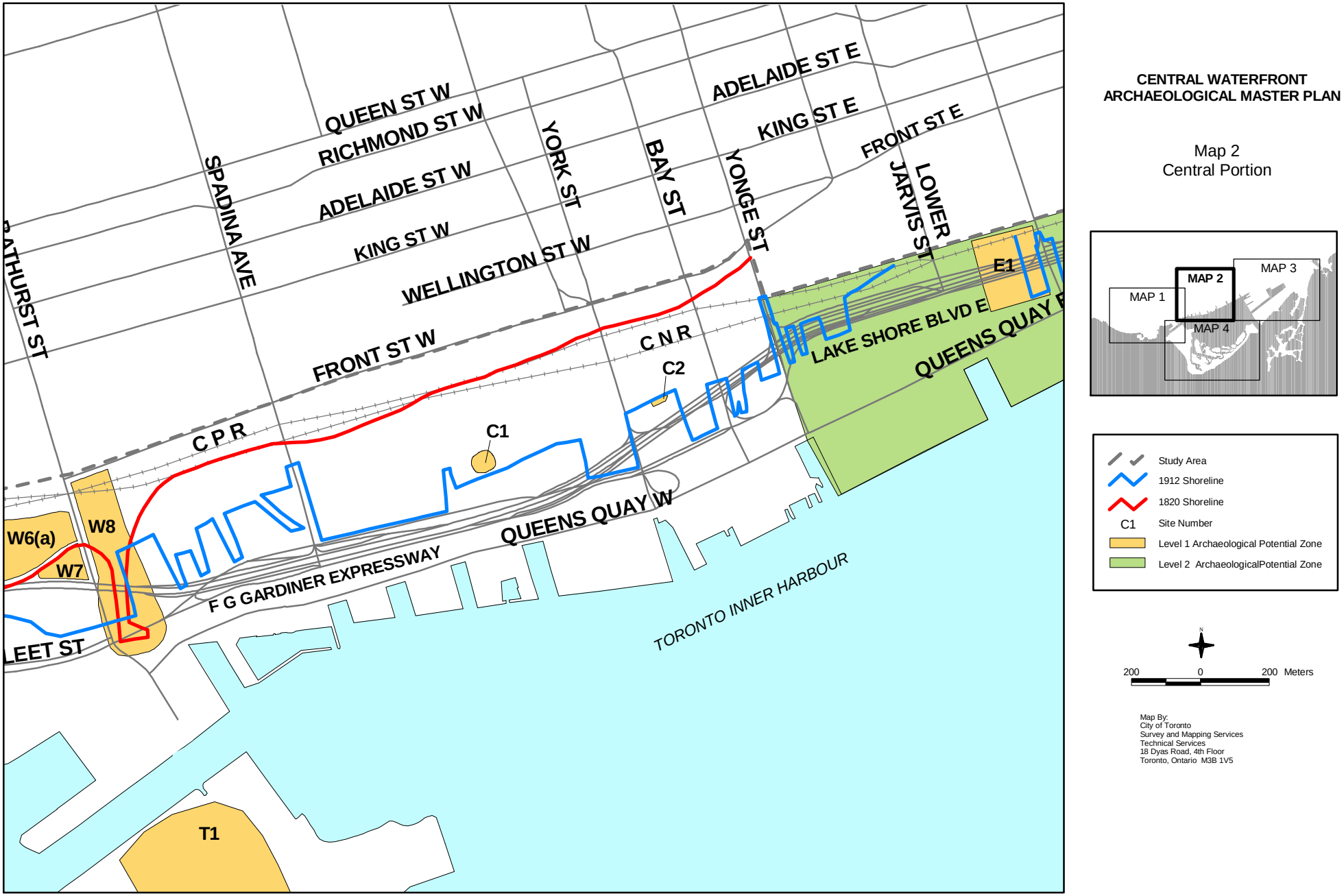


Figure 16: The Central Toronto Waterfront: Site Inventory

After 1834, the construction of piers and the dumping of fill was restricted to the area north of the Windmill Line, which marked the southern edge of the water lots in Toronto harbour (Historica Research 1994:5). By 1842, seven piers were illustrated along the Toronto shoreline on James Cane's 1842 *Topographical plan of the City and liberties of Toronto*.

The development of Toronto's waterfront intensified during the second half of the nineteenth century with the coming of the Northern, Great Western, and Grand Trunk railways. In particular, the shoreline between Bathurst and Parliament Streets was altered through the filling of timber cribs constructed for the Esplanade, a right-of-way developed for use by the railways (Historica Research 1989:54). Later, in 1893, the City of Toronto undertook to fill more sections along a new Windmill Line further south. Timber and rock cribs were constructed in the water and municipal waste was placed behind them, burying many of the existing features in fill. Another project affecting the study area a few decades later was the separation of grades for road and rail traffic, and the massive landfilling and lakefilling operations that accompanied it.

Although the original shoreline and associated features from the mid- to late nineteenth century were highly disturbed (and deeply buried) by the operations described above, a variety of heritage resources have been documented and/or recovered during late twentieth century construction. In particular, excavations for the CN Tower, the Metro Toronto Convention Centre and the Air Canada Centre have provided opportunities for archaeologists to identify a variety of early features—including the bulk of the area's early wharves and piers, sheet piling from the 1858-1893 period, and both the Windmill Line and the New Windmill Line.

What remains to be examined in the central portion of the waterfront are two known archaeological features: the 1890s Canadian Pacific roundhouse, and the remains of the Commodore Jarvis ship. In each case, partial documentation has been completed during previous fieldwork (see ASI 1995b, 1998).

The rest of this section contains more specific historic detail on those properties within the identified archaeological features within this portion of the study area, which is bounded roughly by Spadina Avenue to the west and Jarvis Street to the east.

C1 Canadian Pacific Railway Roundhouse

As Section 2.2 outlines, the construction of railway lines and associated buildings resulted in substantial alterations to the waterfront. In 1893, the area within which construction and filling was permitted in the harbour was extended to a "New Windmill Line." This would provide deep-water piers in Toronto without the need for dredging, as the Great Lakes navigation system was moving to the use of boats with a draft deeper than 10 feet (Historica Research 1989:57). The New Windmill Line also allowed the Canadian Pacific Railway to construct essential new terminal facilities at the foot of Simcoe Street (Figure 17). The City of Toronto undertook to fill the area by constructing cribs in the water and placing fill behind them. The fill was characterized as "suitable material collected in the section bounded by College, Spadina, and Sherbourne Streets at the waterfront"

(Historica Research 1994:5). This process was completed by the mid-1890s after an agreement had been reached with the City of Toronto and the Grand Trunk Railway in 1888.

The first 15 stalls and the turntable of the Canadian Pacific Roundhouse were completed in 1897 in an area between the present day CN Tower and the John Street Roundhouse. In 1907, an additional five stalls were added and in 1918 a further seven were constructed. The original 1897 turntable was replaced in 1918. The building and its associated structures were removed in 1929 prior to filling the area to raise the height of the railway corridor (Historica Research Limited 1994:4).

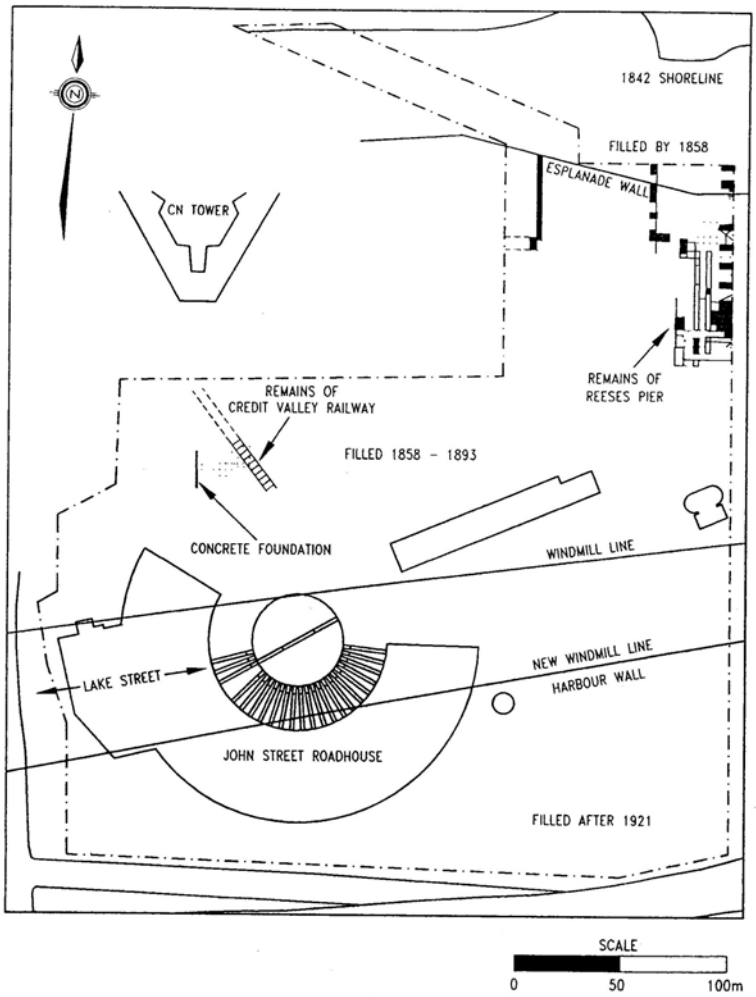


Figure 17: The Canadian Pacific Railway Roundhouse (C1) and associated shoreline features (after ASI 1995b).

In 1995, Eastern Construction Limited uncovered structural remains which had been exposed adjacent to the western limits of the Metro Toronto Convention Centre expansion project. Remnants of the old roundhouse were observed in the profile of the west lagging. Structural remains extended from vertical beam #43 south to vertical beam #37. From the base of the lagging, only about 3'6" of the structure had been exposed. It consisted of sections of 12 by 12" wooden beams atop a brick wall. In places, poured concrete sections were noted. The exposed area was photographed in detail from south to north. The structure extended at least 75' east of the lagging, and an unknown distance west of the lagging, towards the relocated coaling tower (ASI 1995b:11).

Mr. Christopher Andreae of Historica Research Limited confirmed the identification of this structure as the old roundhouse on April 16, 1995. Mr. Andreae further identified two concrete conduits, probably associated with the roundhouse. Of particular interest were the remains, on the interior of one conduit, of the original wooden tongue and groove forms. These features were carefully photo-documented (ASI 1995b:11).

Following the removal of the overburden, the structure was further exposed by hand. This section of the roundhouse was then measured, sketched and photo-documented. Features observed and

documented included the roundhouse floor, structural support systems and bay configuration. It was also confirmed that the majority of the roundhouse extends west of the lagging and south, below the present roundhouse.

After documentation, the structure was removed under the supervision of the archaeologists. This was done in order to obtain additional construction details. For example, it became evident that the concrete footings, which supported the roof beams, had been placed on four wooden piles (ASI 1995b:12). By May 26, 1995, an additional 30' section of the roundhouse had been excavated. According to Eastern Construction Limited personnel, the recently demolished section of roundhouse was similar in structure to the portion that had been documented up to May 19, 1995.

Since a portion of the old roundhouse extends west beyond the building site described above, it may be preserved for posterity and future interpretative purposes. As a known archaeological resource, the remainder of the CP roundhouse should be recovered and documented should further land development occur in the immediate vicinity.

C2 The Commodore Jarvis

Summary History

The hull of a naval vessel, the *Commodore Jarvis*, was incorporated into the fill of the study area. Apart from technical descriptions, virtually nothing is known about the early years of the vessel. However, due to its final use as a training ship and ultimate destruction by fire, the last four years of the *Commodore Jarvis* are reasonably well documented.

The *Commodore Jarvis* was a small oak framed vessel of 109 x 27 feet, with a moulded depth of six feet and 287 gross tons (97 net tons). Built in Bronte, Ontario, in 1904 by Isaac G. Gillespie of Toronto, the ship's registry described it as having a single deck but no galley. The *Commodore Jarvis* was a twin screw steamer powered by a two-cylinder, 11.3 h.p. engine manufactured by Fred Doty of Goderich (ASI 1998:5).

The Jarvis' history between 1904 and 1917 is unknown but a photograph in 1921, long after it had left commercial service, depicted a beamy vessel (wide in relation to length) with a square wheel house, a small passenger deck and a freight deck. The design suggests that the vessel was designed for short coasting voyages on Lake Ontario or on rivers or a canal system such as the Trent-Severn (ASI 1998:5).

The vessel registry was closed June 1917 at Amherstburg, Ontario, although it seems to have been moored at the Cherry Street wharf in Toronto. About a year later, the vessel was sold to the Navy League of Canada as a training ship. The Navy League of Canada was founded in 1896 for the purpose of assisting "the Imperial Policy of the command of the seas and to spread information showing the vital importance to the British Empire of maintaining this supremacy." In June, 1918, the *Commodore Jarvis* was towed from the Cherry Street wharf to the foot of the Canada Steamship dock at York Street, though the Canada Steamship Company was ultimately dissatisfied with the

training vessel at the dock and the Toronto Harbour Commissioners turned the vessel 90 degrees and towed it to a new mooring along the harbour wall a few feet away from the foot of the Canada Steamship dock (ASI 1998:6).

At the new berth, the *Commodore Jarvis* underwent extensive repairs and was totally renovated in 1920 after which the *Commodore Jarvis* had a short history as a training vessel. However, the vessel burned at the dock on Sunday morning, November 6, 1921, due to a defective heating system. The estimated loss was $7,000 but the boat was fully insured. The Navy League noted that they lost the best part of their equipment including two wireless sets, ammunition, rifles, models, navigation instruments and charts (ASI 1998:6).

This disaster could not have happened at a more unfortunate time. The Toronto Harbour Commissioners were expanding the lakefill along the waterfront and a new headland wall had been completed in the vicinity of the foot of Yonge and Bay Streets by September 1921. The harbour between the existing wharves and the new head wall was to be filled in 1922. It is unknown what plans the Navy League had for moving the *Commodore Jarvis* to a new berth, however, the sinking of the vessel added a new cost to the organization (ASI 1998:6).

The Harbour Commissioners lost no time in reminding the Navy League that the vessel could not be abandoned in place because it would interfere with navigation and dredging operations to take place in the early spring. A photograph in the *Toronto Telegram* (November 9, 1921) taken shortly after the fire shows the *Commodore Jarvis* sitting on the harbour bottom in about three or four feet of water. For unknown reasons, the Boy's Naval Brigade decided that the vessel could not be salvaged and, ultimately, despite numerous protestations of the Deputy Harbour Master, the hull was abandoned in place (ASI 1998:6).

By fall 1922,the *Commodore Jarvis* ' hull had been buried in landfill, though the front of the hull later rose out of the sand. The Harbour Master ordered the Navy League to break up the old hull so that the present site would not be above an elevation of 248' above New York sea level. However, this demand seems to have been ignored since the Deputy Harbour Master wrote to the Navy League again on November 2, 1922 to say that his patience had been exhausted.

It is unknown how the matter was settled, though a May, 1923 photograph in *Toronto World* shows the wreckage of the *Commodore Jarvis* still sticking out of the sand in the lakefill site. Sometime afterwards it appears that the exposed structure was demolished.

Archaeological Potential

In July 1997, a section of the *Commodore Jarvis* was excavated on the site of the new Air Canada Centre (Figures 18 and 19). The vessel was found lying at the slight upward angle that can be seen in Toronto Harbour Commission photos taken during dredging operations. It is not certain if the hull had been abandoned where the vessel sank or if it had been moved into deeper water after the fire.

Although the bow area of the vessel had been demolished almost to the keel, by the point at which the hull was still buried in the fill, the structure was intact to the passenger deck. The area exposed in 1997 would have been that section of the vessel above the fill line.

Figure 18: View of the remains of the hull and interior of the *Commodore Jarvis* (C2).

Details of the excavation can be found in ASI (1998), while much useful background information and photo-documentation is contained in Historica Research (1989) and Terraprobe (1995). Despite fire damage, stripping and subsequent demolition damage, it was still possible for archaeologists to acquire an understanding about the nature of the ship's construction, which added to the basic knowledge of early twentieth century coastal steamers of the Great Lakes.

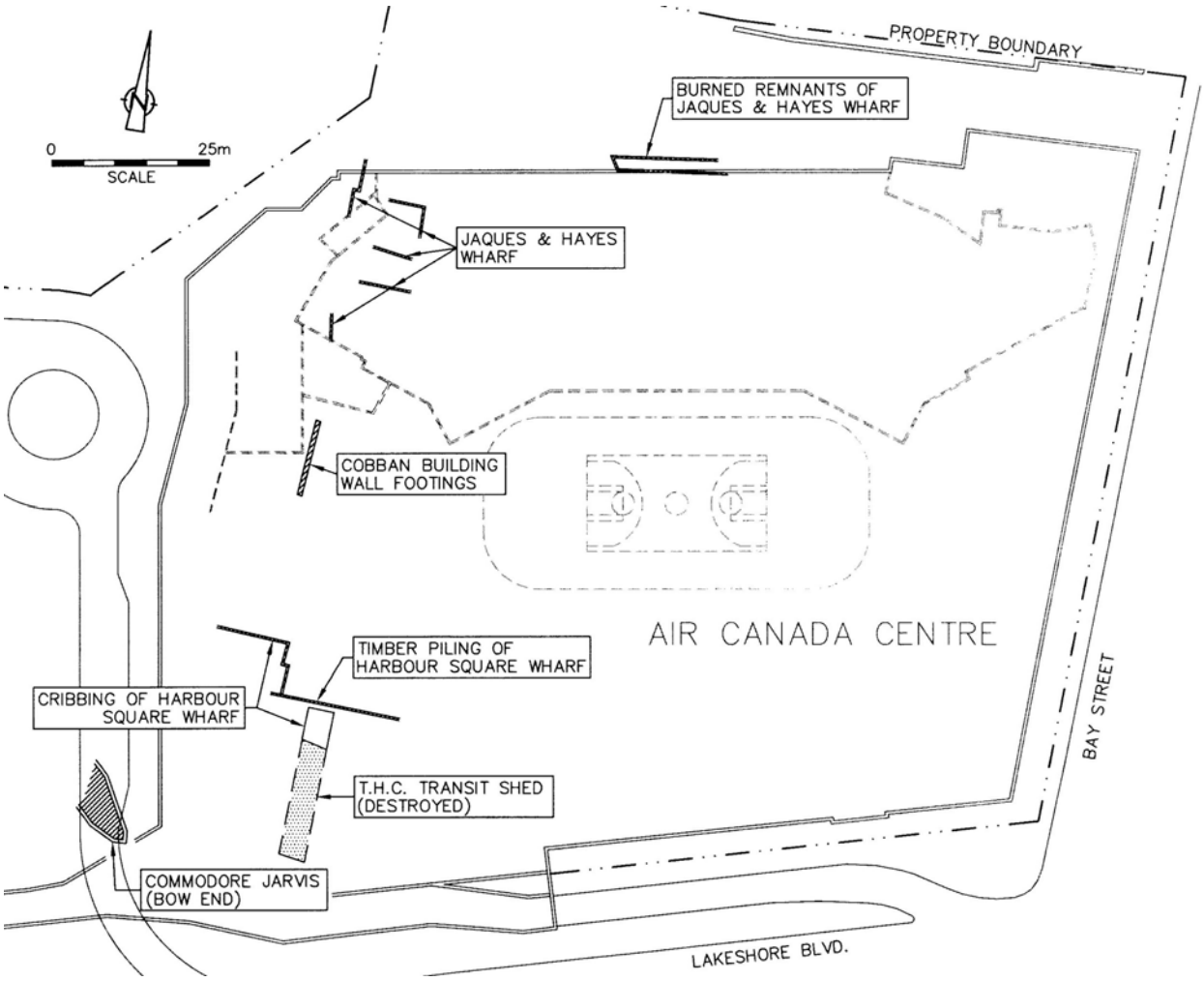


Figure 19: Shoreline features encountered during the construction of the Air Canada Centre in the vicinity of C2.

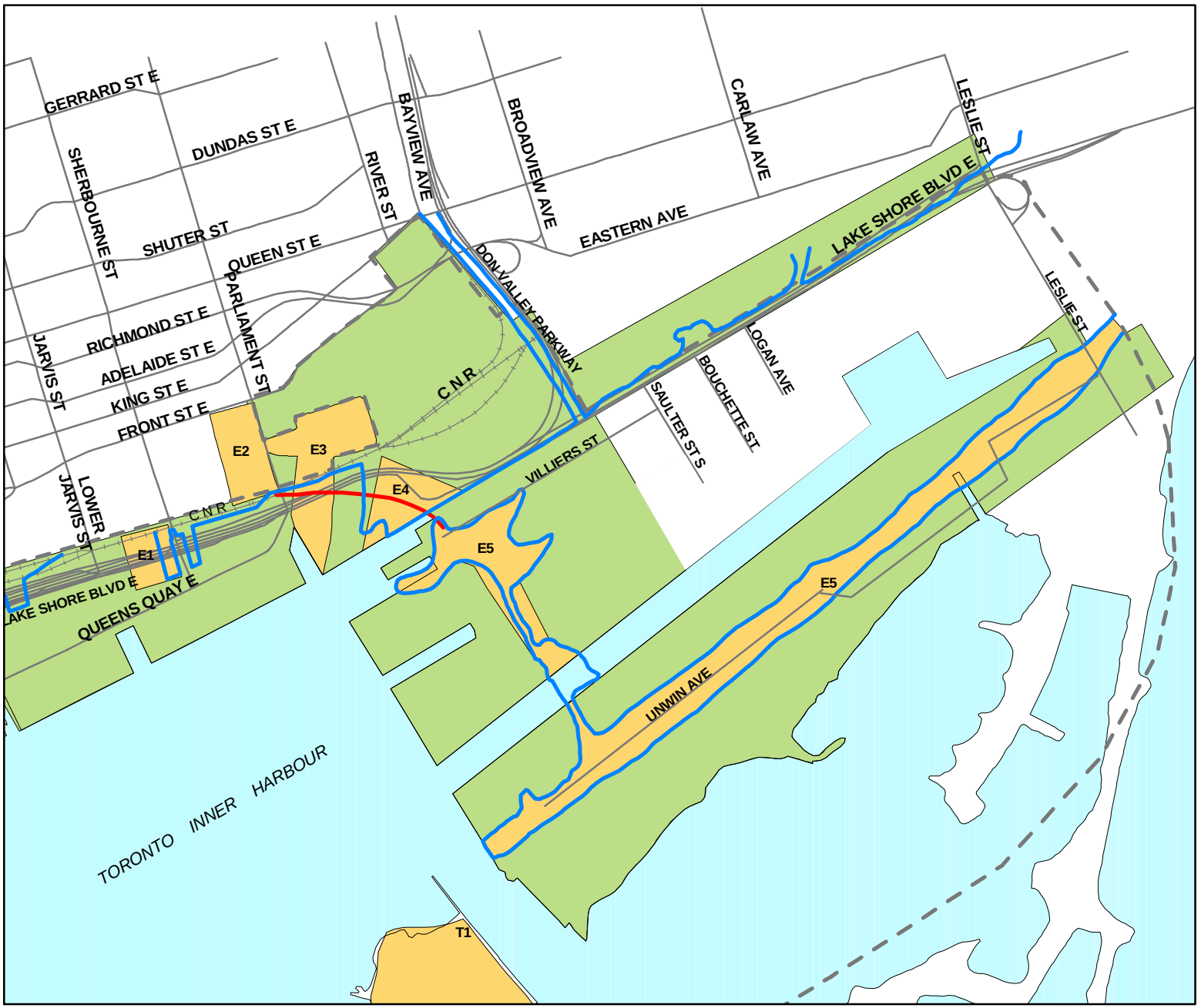
The *Commodore Jarvis* is a known archaeological resource on the Toronto waterfront. Given the manner in which the vessel was sunk, it is possible that the stern is more intact and in better condition than the portion investigated. In light of this possibility it is recommended that the remainder of the boat should be exposed and examined should further excavations occur in the vicinity.

3.4 Toronto Waterfront: East

The Eastern portion of Toronto's waterfront (Figure 20) is perhaps the most modified part of the study area. Like the lands to the west, much of the East Bayfront consists of modern fill which was dredged, dumped and shaped in the early part of the twentieth century, with some sections of the port lands completed as late as the 1960s. The pre and post-fill history of the area also mirrors the development of the western and central lands, with a succession of pre-contact Aboriginal use followed by military occupation, town planning, and the extensive expansion of transportation networks and subsequent industrialization. Over time, the consequent changes to the landscape have been dramatic, including not only the southerly extension of waterfront lands, but also modifications to the flow of the Don River, and other pre-existing natural features like sand spits, marshes and the peninsula which led to the present day Toronto Islands.

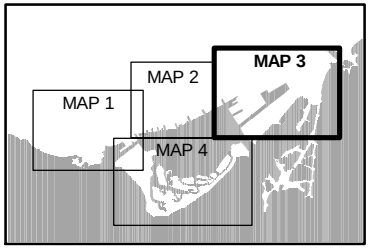
Human intervention in the landscape has resulted in an almost wholesale change to the configuration of harbour lands in this area, making future archaeological investigations difficult, but by no means impossible. Given the inferred biotic richness of the Toronto Islands sand spit, and its easy access from the mainland, it would seem to be an area that would have been highly attractive to aboriginal hunter-gatherers for purposes of seasonal occupation and harvesting of plant and animal resources both terrestrial and lacustrine. However, it was probably too exposed for prolonged or year-round occupation.

The age of the sand spit suggests that aboriginal people may have started visiting its shores during the Middle Archaic period, circa 7,000 to 6,000 B.P., and these visits likely continued right through the contact period. Unfortunately, the discovery of archaeological evidence of such occupations will be difficult. First, the dynamic and changing character of the sand spit itself has likely buried many sites. Second, and more significantly, the extensive land disturbance and filling which has occurred over the last 150 years has likely buried or destroyed many other sites. Nevertheless, approximate zones of archaeological potential can be mapped using early maps as a guide.



CENTRAL WATERFRONT ARCHAEOLOGICAL MASTER PLAN

Map 3
Eastern Portion



Study Area
1912 Shoreline
1820 Shoreline
E1 Site Number
Level 1 Archaeological Potential Zone
Level 2 ArchaeologicalPotential Zone

200 0 200 Meters

Map By:
City of Toronto
Survey and Mapping Services
Technical Services
18 Dyas Road, 4th Floor
Toronto, Ontario M3B 1V5

Figure 20: The East Toronto Waterfront: Site Inventory

Lands identified as having pre-contact potential, as well as known archaeological features with historic associations within the portion of the study area bounded roughly by Jarvis Street to the west and the Don Valley Parkway to the east have been listed and mapped in sequence from E1 to E5.

Although twentieth-century industrial development is largely outside the scope of this study, issues of industrial heritage will be addressed where applicable.

E1 Polson Iron Works and Knapp's Roller Boat

Summary History

By the 1880s, railways in Toronto looked after the bulk of the city's transportation requirements, but the port still handled a large quantity of merchandise. The eastern wharves below the Esplanade were home to a number of port-related industries, including the Polson Iron Works near the foot of Sherbourne Street.

Founded in 1883 by father and son railway engineers, William and Franklin Bates Polson, the Polson Iron Works Company built an assortment of marine engines, boilers, and general-purpose motors, including the revolutionary Brown automatic engine. After establishing an Owen Sound shipyard in 1888, the Iron Works became involved in the shipbuilding industry, producing several well-known vessels. The first of these, the passenger vessel *Manitoba*, was the first steamship built in Canada and was reputed to be the largest vessel afloat on fresh water when it was launched in May, 1889 (Stinson and Moir 1991).

Although the Owen Sound shipyard was operating at full production in the 1890s, the Polsons were caught in an economic depression and the company's bankrupt Toronto operation was purchased in 1893 by Frank and James Polson. At this time it appears that all shipbuilding operations were transferred to the shore of Lake Ontario from Georgian Bay. By 1907, the Toronto yards jutting into the harbour between Frederick and Sherbourne Streets employed around 500 men who produced a variety of vessels, including launches, car ferries and passenger ferries such as the *Segwun* and the *Trillium*. In addition, the country's first home-built, steam-powered warship, the *Vigilant*, was built and launched at this site, as well as a number of hydraulic dredges, including the *Cyclone* and *Tornado* which ironically were used to bury the Iron Works during harbour filling (Stinson and Moir 1991).

At first, business was steady for the Polson Iron Works as Toronto established itself as an early centre for the construction of steel-hulled ships on the Canadian side of the Great Lakes. However, overall, shipbuilding in Canada declined substantially after 1900 and the entire industry had difficulty competing with larger and more economical operations in the United States and the United Kingdom. Although construction of Navy trawlers and munitions freighters during World War I kept the company afloat (and even led to an expansion of existing yards) demand for their vessels disappeared with the 1918 armistice and by March of 1919 the firm had declared bankruptcy (Stinson and Moir 1991).

At the time of its closure, the Polson property extended into the area now known as the East Bayfront, east of the Frederick Street slip and over to Sherbourne, including some municipal lands near Frederick which had been closed off to support the expansion of the Iron Works a decade earlier. Much of the property lay dormant until the buildings were demolished shortly after the dock-yards were subsumed by a mixture of dumped land fill and dredged up sand between 1926 and 1928.

Archaeological Potential

In addition to the potential remains of industrial machinery, marine features and processes to be found below the current land grade on this site, an unusual vessel, *Knapp's Roller Boat*, is believed to be buried in fill under Lakeshore Boulevard and the northwest corner of the warehouse addition to the Alloy Metal Sales building, between Richardson and Sherbourne Streets. This unique cylindrical ship, designed by Prescott lawyer Frederick Knapp, was built on commission by the Polson Iron Works and launched in 1897 (Figure 21). Knapp's design, intended to revolutionize the shipping industry, called for a narrow cylinder carrying crew, cargo and passengers to be placed in a larger cylinder equipped with paddles along the length of its centre portion. Rotation of the exterior cylinder would drive the ship through the water while the inner compartment remained still. Although the concept worked well enough in calm waters, ultimately Knapp's invention proved unable to withstand rough weather and was unceremoniously abandoned near the site of its launching. Contemporary pictures (Figure 22) show its rusting wreck awaiting burial (Stinson and Moir 1991).

No known archaeological work has been done in this area.

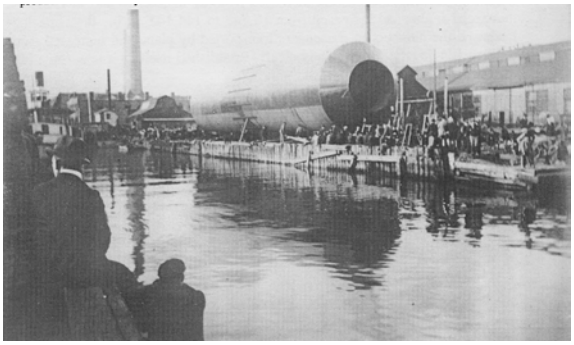


Figure 21: The launching of Knapp's Roller Boat from the ways of Polson's Iron Works, September 1895 (from Stinson Moir 1991:29).

Figure 22: Knapp's Roller Boat rusting in the Frederick Street Slip, September 1914 (from Stinson and Moir 1991:5).

E2 Parliament Buildings

Summary History

In 1795, Lieutenant Governor Simcoe ordered the first Parliament Buildings of Upper Canada to be built at York. The structures, completed in 1797, were comprised of two brick buildings, situated

75 feet apart, each measuring 40 feet by 24 feet. The House of Legislative Council sat in the southern building and the House of Legislature Assembly in the northern building. The buildings were likely one and a half storeys, each with a small viewing gallery accessed by an outside staircase. Built to the immediate east of the brick buildings were two 30 foot frame dwellings used for committee rooms. The inaugural session in Upper Canada's first Parliament Buildings sat in June 1797.

The Parliament Buildings at York were used for a host of political and judicial purposes as well as for public gatherings. The most notable tenant of the Parliament Buildings was the Anglican Church, serving as the church at York for a full decade and adding to the growing political and judicial duties occurring at the houses of Parliament.

A Town Blockhouse was built in 1798 for the York Militia by the command of Russell, who feared native incursions into the town of York. An 1812 sketch by William Leney shows the town Blockhouse located less than 10 metres from the Lake Ontario shoreline bluff (Leney 1812), immediately south of the Parliament Buildings (see also the 1810 Wilmot Plan).

In the War of 1812, an American flotilla invaded York on April 27, 1813, culminating in the burning of the garrison and many public offices. On May 1, the Americans were ordered to embark their ships but not before they burnt the Parliament Buildings and the Town Blockhouse, among many other buildings.

Soon after the 1813 invasion, while the garrison was undergoing a post-invasion reconstruction, the first Parliament Buildings were rebuilt as two-storey brick structures for the billeting of British troops. In 1817, the reconstructed upper floors of the first Parliament Buildings were being used to house newly arrived immigrants.

The second Parliament Buildings of Upper Canada, constructed between 1818 and 1820, connected the rebuilt wings of the first buildings with a two storey brick building. The fate of the second Parliament Building was similar to that of the first buildings. On December 30, 1824, a fire broke out in the north wing, likely the result of sparks from an overheated chimney flue. The north wing and centre block were destroyed while the south wing was damaged but remained standing. Although the Legislative Assembly abandoned the building thereafter, a squatter took up residence inside the south wing. A series of letters dated between December 1826 and January 1828 details the temporary residency of the Chearnley family in the former Parliament Buildings. The remaining materials of the buildings were sold off by auction in April 1830.

The property remained vacant until the 1838-1840 construction of the Home District Gaol on the site. The third Home District jail was a substantial three storey limestone structure designed by John Howard. The building was built as two arms of a planned three wing structure with a central octagonal tower and a large stone walled exercise yard to the west and south. The jail was used as such between 1841 and 1860. Thereafter, the jail was utilised by both the military and later by a safe manufacturing company.

The Consumer's Gas Company purchased the property ca 1879; at that time coal was stored outside between Parliament Street and the old jail. A coke shed was located on Front Street and, in 1881, a coal shed was built extending down the east side of the property between the jail and Parliament Street. The empty jail building was demolished circa 1887 when Consumer's Gas began to expand their operations on the Parliament Street property. Consumer's Gas constructed a coal-gas retort house in 1888-89 along the west side of the property along Berkeley Street. Separating the two buildings was a 25 metre wide courtyard compete with a sunken rail spur and concrete footings to support a series of conveyers, and an administration building facing Front Street.

The Consumer's Gas structures were demolished in 1964, when the property was developed to house an automotive centre, car and truck washes, a gas station, and car rental agency. These structure, save the gas station, remain extant on the property today.

Archaeological Potential

The archaeological potential of the property was aptly demonstrated in the fall of 2000 when test excavations within the footprint of the 25 metre Consumer's Gas courtyard unearthed evidence of not only the Consumer's Gas occupation of the property, including a conveyer's concrete footing, brick piers, and the sunken rail spur, but also documented substantial features and artifacts dating from the era of the first and second Parliament Buildings of Upper Canada. These circa 1795 to 1825 features (Figure 23) included the charred remains of burned floorboards and joists, a limestone footing, brick rubble and lime mortar, and a mortar and flagstone feature associated with primarily creamware ceramics dating from the turn of the eighteenth century.

The presence of parliamentary era archaeological remains prompted a thorough evaluation of the property as to further archaeological potential for the recovery of additional remains associated with the first and second Parliament Buildings of Upper Canada. The evaluation resulted in the identification of a zone of archaeological potential (Figure 23), within which is the greatest likelihood for the recovery of additional parliament building features and artifacts.

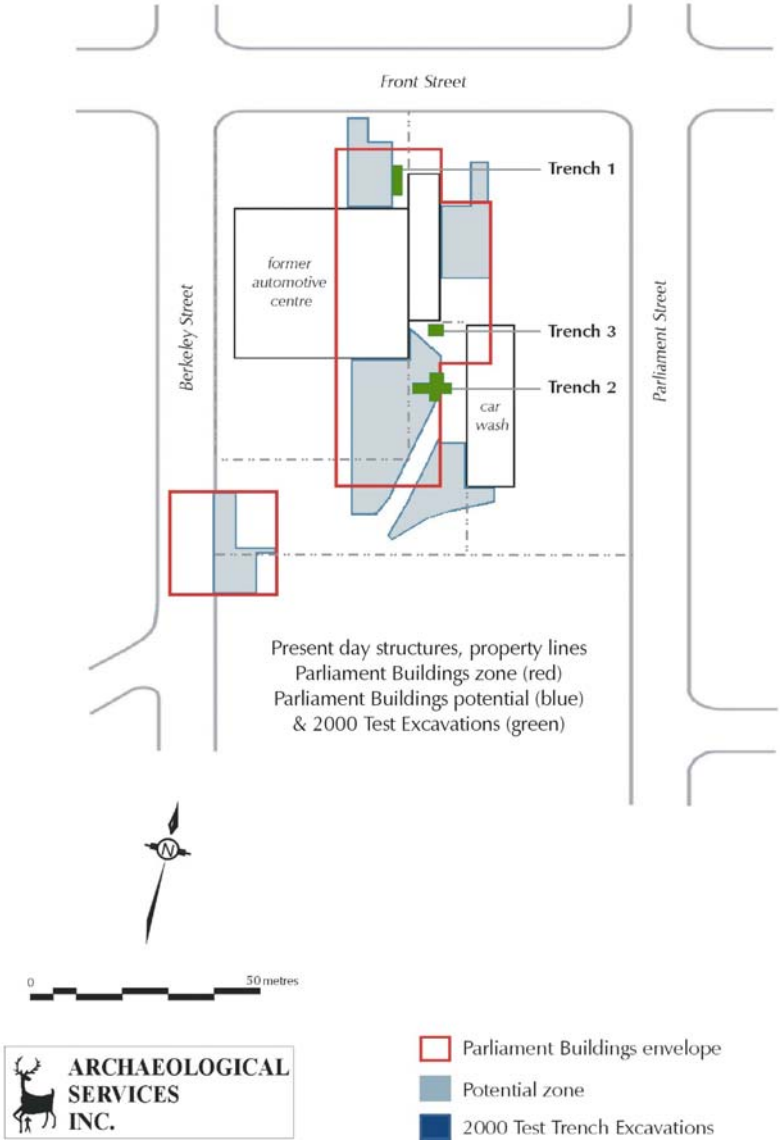


Figure 23: The results of the 2000 test excavations in the area of the Parliament Buildings (E2).

E3 Gooderham and Worts Distillery

Summary History

Within a year of his arrival from England in 1831, James Gooderham built a wind-powered gristmill on the shore of Toronto harbour. Joined by his brother-in-law in 1832, the partnership prospered and by 1837 the Gooderhams were distilling alcohol from surplus and low-grade grain. The distillery

occupied a small plot of land on the west side of Trinity Street near the harbour, and the company improved its waterfront with a small wharf (Diamond, Schmitt and Company, et al. 1990:26).

The 1833 Bonnycastle No. 1 *Plan of the Town and Harbour of York* indicates that the site of the Gooderham and Worts distillery was quite marshy, situated close to the mouth of the Don River. This map also shows that streets had been laid out for development associated with the construction of the Gooderham and Worts Windmill, which was used in 1834 as a survey reference point for the establishment of water lots in Toronto harbour. Until the 1880s, this "Windmill Line" formed the southern edge of the water lots and the limit for dumping fill in the harbour.

According to the 1842 James Cane *Map of the City and Liberties, Toronto*, the stabilization of the shoreline and construction of buildings within the newly surveyed streets had begun by this time, though the original distillery burned to the ground that same year. After 1856, the rebuilt distillery was cut off from the harbour by the Grand Trunk Railway, whose tracks came to form the southern boundary of the complex (though the Gooderham's wharf had been enlarged, supporting an elevator by 1857, and extending south of the rail lines). Later, the dock complex near the mouth of the Don River consisted of a grain elevator and coal sheds, and its angle and location created a little harbour. Subsequently, however, major lakefilling schemes in the 1920s altered the flow of the river, pushed the harbour further south, and subsumed the wharf in fill.

After 1859, new mill and distillery buildings filled the site, followed by a malt house and company office in 1864 (Diamond, Schmitt and Company, et al. 1990:26). The operation continued to expand steadily and by 1873 distilling and storage facilities had expanded to the east side of Trinity. Many warehouses were required to support the company's massive output. At its peak, the property extended to its present western boundary at Parliament Street and east to Cherry Street by 1887 (Figure 24). Cattle sheds were moved to the mouth of the Don River to make way for these new land developments. As late as 1885, despite the massive intrusion of rail yards, the Gooderham family maintained a large residence on Mill Street immediately north of the distillery. This eventually gave way to two tank warehouses and a multi-storied barrelhouse (Diamond, Schmitt and Company, et al. 1990:26).

The Gooderham family divested itself of the distillery business in 1926, though the property continued to function as Hiram Walker-Gooderham and Worts Limited. The last building constructed on the site was a rack warehouse opened in 1927. Over the years, vacant buildings and land have also been leased out for other purposes, including a lumberyard, junkyard, warehousing for a variety of industries and paper-recycling operations, while limited distillery operations continued into the latter part of the twentieth-century.

Archaeological Potential

Although portions of the Gooderham property are outside of the study area, its existence as a National Historic Site, and its proximity and importance to the development of the eastern waterfront warrants its inclusion as a whole on any planning study of archaeological resources.

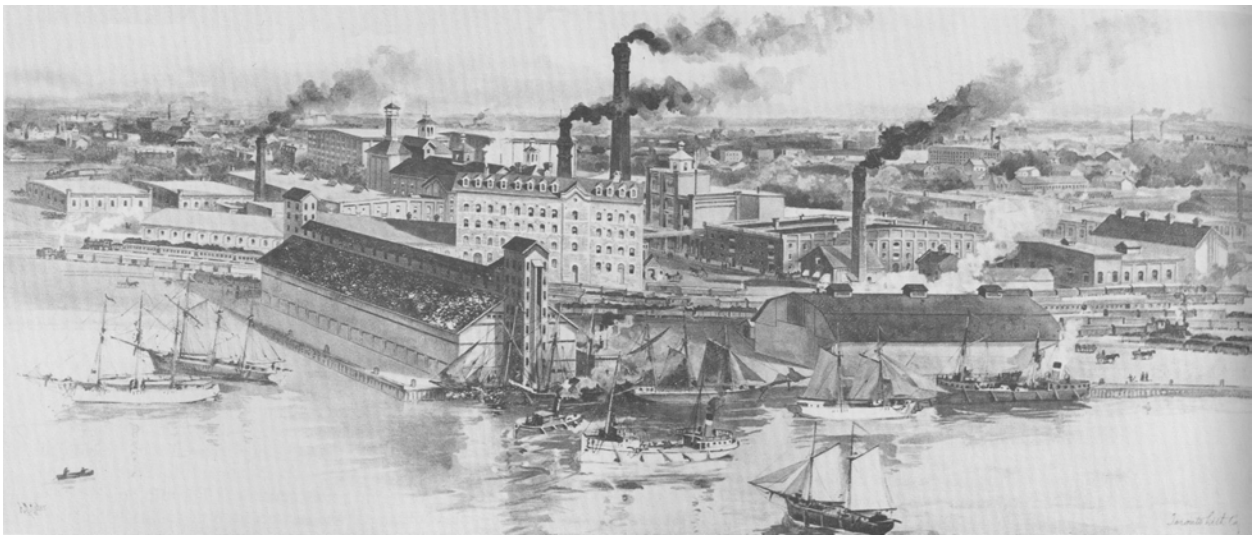


Figure 24: The Gooderham and Worts distillery (E3) near the mouth of the Don River (from Careless 1984:110).

Of particular interest is the recovery of further evidence of the Gooderham windmill, since the feature served as an important waterfront landmark for several decades in Toronto's early history. The "Windmill Line" used to survey the shore was an important marker for the first layer of early nineteenth century development. Also, vacant portions of the site might yet yield the foundations of now-demolished distillery structures.

It should be noted that some field investigations have already been conducted on this site, including an examination of features associated with the Worts family residence and rackhouses (ASI 1996a) and early shoreline cribbing (ASI 2000). In the latter it was suggested that a complex layout of crib structures exists south of the stone distillery and test trenches indicate that this cribbing ends somewhere in the vicinity of Trinity Street. Thus, the nature of the shoreline seems to be at variance with the way the distillery was depicted in art. All paintings made from the waterfront show a very level and neat crib structure. The reality, however, seems to be a much more crudely built facility (ASI 2000:3).

Consequently, the most useful question to answer in this regard is: at what point does cribbing end along the shoreline? It is recommended that the area beneath the storage pile in front of the stone distillery be examined for additional crib and wharf structures when the earth is removed. This will help to determine how far the east shore protection extended. Related to this project would be the recovery of features associated with the Gooderham and Worts Wharf, which projected into the bay on a southwest 45-degree angle from the southern perimeter of the site, below the 1856 rail-lines – an area currently known as the "Triangle Lands".

Although further archaeological assessment of shoreline features would be time consuming because of the depth of the excavation, proper monitoring of land re-development in this area (particularly in the vicinity of the Lakeshore/Gardiner Expressway corridor) would provide the opportunity to uncover and document important aspects of Toronto's industrial history. As Mark Fram wrote in his 1990 heritage assessment of the Triangle Lands, "the Gooderham and Worts waterfront is now

visible only indirectly, as the skew of the mill and distillery buildings from the city survey grid, together with the alignment of the railway spur delineating the southern boundary of the complex. However, it exists more tangibly but invisibly beneath the landfill and lakefill that covers the Triangle Lands. This portion of the study area has been disturbed by small-scale construction, but archaeological evidence of the nineteenth-century no doubt exists in some locations" (Diamond, Schmitt and Company, et al. 1990: 33-4).

E4 Cherry Street Dry Dock

The Cherry Street dry dock is a potentially buried feature, known largely through maps and photographic evidence (Figure 25). Although the precise location of the dry dock is not known (without the same permanence as a pier most cartographers left it undrawn), Jeffery Stinson's study of heritage resources in the Port Industrial district places it near the foot of Cherry Street, between the curve of Lakeshore boulevard and the northern end of the Cherry St. bridge which spans the Keating channel (Stinson 1990:18). Barclay Clark and Co.'s chromo-lithograph *Birds-eye view of Toronto Harbour* (1893) supports this general placement.

Figure 25: The Cherry Street dry dock in 1898 (from Stinson 1990:18).

Further historical research is required to determine the construction date of the dry dock though an 1898 photo shows it to be of timber construction, indicating mid-nineteenth century origin. In fact, it is unusual for a timber dry dock to be in existence at all in the late nineteenth century, even in derelict condition. Nevertheless, the Cherry Street dry dock is associated with the Toronto Dry Dock and Shipbuilding Company and the Don River, whose mouth ran into the bay at this location prior to diversion.

Stinson believes that evidence of its activities may still exist and it is quite likely that archaeological investigations focusing on the original alignment of the Don would yield evidence of previous engineering works and of the occupation of the edges. In particular, the Toronto Dry Dock and Shipbuilding company on the south shore may have left evidence of its installations if these were not in the way of later services or structures (Stinson 1990:64).

E5 Sandbar, Peninsula and the Port Industrial District

Site E5 comprises a collection of features in the extreme eastern section of the study area. Included in the inventory is the natural sandspit which connected the waterfront to a peninsula south of the shore (later breached to form the Toronto Islands to the west, see T1), the peninsula itself (known as Fisherman's Island), and the Government Breakwater which was constructed along the line of the sandspit in the 1880s (Figure 26). Also of interest are the early dock walls and cribbing to be found near the northeast corner of the site.

Figure 26: View north along the line of the Government Breakwater (from Stinson 1990:18).

Summary History

Prior to the massive re-development and infilling of the east Bayfront area (see section 2.3), a sandspit or isthmus formed the eastern boundary of Toronto harbour. Extending roughly north to south, its southern end terminated at a sandbar, its eastern side bordered a tangled wetland of marshes, creeks and ponds extending into Ashbridge's Bay and its northern end was on the mainland, curving between today's Parliament and Cherry Streets. The isthmus was formed over many centuries by sands eroded from the Scarborough Bluffs which were carried westward to meet silt deposited by the Don River (see section 2.2). The Don River had as many as five mouths in the area and the isthmus was bisected by two of them. In early years of settlement bridges crossed these outlets, though low water periods allowed easy fording at such times.

In an earlier time, Fisherman's Island, as the east-west peninsula was later known, was likely used by aboriginals for hunting and fishing. An appealing location, combined with an abundant source of fish, soon lured Europeans across the isthmus to the peninsula (which ran roughly east to west encompassing the present day Toronto Islands), including one famous visitor, Elizabeth Simcoe, who rhapsodized about the area in her diary. However, several storms in the mid-nineteenth century broke through the peninsula at the area of the present East Gap, isolating Toronto Islands.

By 1885, occupation of the peninsula and sandspit had begun to take on a more permanent form, following successful summer communities on Centre Island and Hanlan's Point. Around this time the mainland side of the isthmus became a site of early industry (and cheap land), and the natural pathway to the sandbar peninsula was made more concrete in the 1880s when the Federal Government constructed a breakwater along the western side. This allowed some protection from erosion and created a roadway to the sandbar now known as Fisherman's Island (Figure 27).

The Government Breakwater, which separated the harbour from the marsh and closed the southern opening of the Don, was the first major intervention in the Port Industrial district. It consisted of two lines of sheet piling with rock fill in between. It followed a curving line from the Don breakwater to the lake edge sandspit, bending west to the edge of the East Gap. The breakwater did not follow the natural line of the spit, though the top formed a dirt pathway that later supported the horse-drawn wagons, automobiles and hydro lines of local cottagers. The Breakwater regularized a path system that had probably existed since earliest times, but made its first official appearance on the Williams survey of 1814 (Stinson 1990:9). Under pressure to improve the sanitary conditions in Ashbridge's Bay, the breakwater was breached in 1893, beginning implementation of a new plan for the whole marsh area put forward by City Engineer, E.H. Keating (Stinson 1990:9). The result was the Keating Channel.

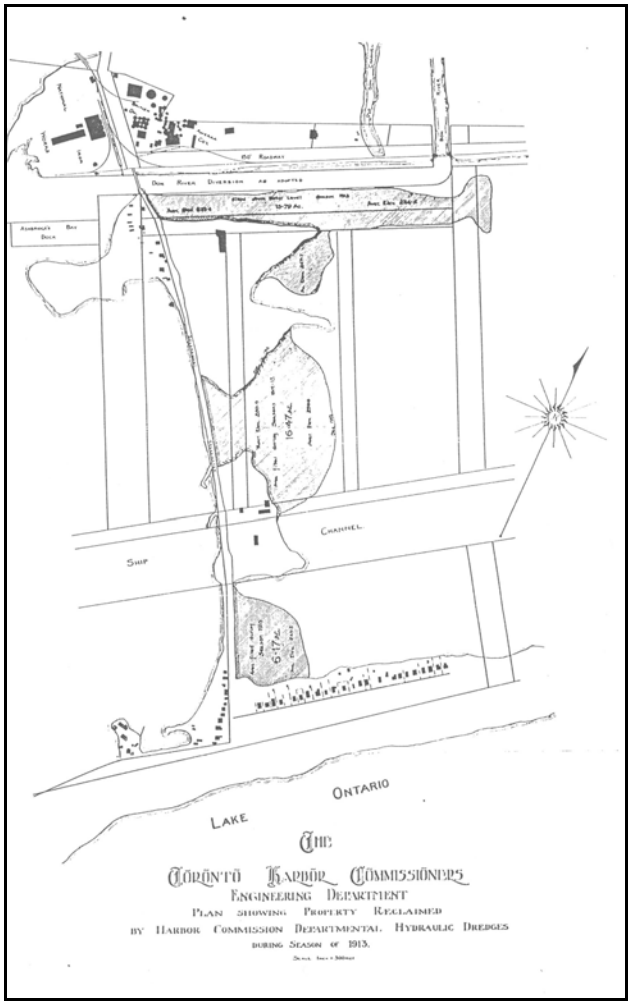


Figure 27: The Toronto Harbour Commission Engineering Department Plan showing property reclaimed by Harbour Commission departmental hydraulic dredges during season of 1913.

By the early years of the twentieth-century, development had intensified and cottages replaced many of the shacks and boathouses of the area's largely transient residents. By 1911, two small foundries were located north and south of Keating's channel and a manufacturing enterprise was under

construction in the middle of the north-south sandspit. Small-scale fishing enterprises lined some sections of the harbour edge while the sandbar peninsula had two clusters of cottages on either side of a beach park. The sandbar itself was divided into lots and leased to individuals. On the lakefront of Fisherman's Island was a wide boardwalk (Stinson 1990:8). In the late 1920s, however, the residents of the cottages had their leases expropriated and their cottages were either demolished or relocated. This coincided with the Toronto Harbour Commission's lakefilling operations.

Archaeological Potential

Those areas of the Port Industrial district constituting natural features of the sandbar and isthmus have pre-contact aboriginal potential. Although the precise boundaries of these natural features cannot be confirmed without soil testing (not only do massive amounts of fill surround them but their shape prior to re-development would have fluctuated with water levels and storm action), historic mapping can provide a reasonable basis for flagging certain areas for further study.

The Government Breakwater was the first human-made definition of the harbour. Apart from its significance as a path to sandspit communities, the breakwater was a substantial engineering work. Like the Don River outlet it seems quite likely that sections of the breakwater still exist where later construction did not demand its removal (Stinson 1990:64). It would not be difficult for the Breakwater to be accurately plotted.

Finally, all of the dockwall profile put in place by the Toronto Harbour Commissioners has a strong claim to historic significance.

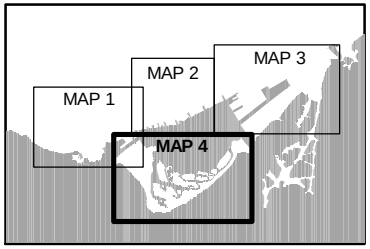
3.5 Toronto Islands (T1)

Summary History

The confluence of easterly sand-bearing currents, westerly winds and the outflow of the Don River produced a five-mile long peninsula stretching from the present Woodbine Avenue to Gibraltar Point. (Note: in early nineteenth century mapping Gibralter Point is the name given to the furthest western portion of the peninsula where the Island airport currently operates, while later maps re-name the area to the west of the lighthouse, Gibralter Point).

CENTRAL WATERFRONT ARCHAEOLOGICAL MASTER PLAN

Map 4
Toronto Islands



Study Area
1912 Shoreline
1820 Shoreline
T1 Site Number
Level 1 Archaeological Potential Zone
Level 2 ArchaeologicalPotential Zone

200 0 200 Meters

Map By:
City of Toronto
Survey and Mapping Services
Technical Services
18 Dyas Road, 4th Floor
Toronto, Ontario M3B 1V5

Figure 28: The Toronto Islands: Site Inventory

Comparatively more enduring structures on the island after the 1830s were a variety of hotels, mostly in the narrows areas, though even they suffered greatly during heavy island storms. The only known factory is the area was Benjamin Knott's Blue and Poland Starch Factory, which was presumably washed away during the 1850s storms that flattened its nearest neighbour, The Quinn Hotel. Other large hotels were built in the narrows area during the 1840s, as well as on present day Mugg's Island (Gibson 1984: 38, 52, 55, 63).

Figure 30: Toronto Island Cottage (from Gibson 1984:36).

During the 1850s a succession of severe storms breached the peninsula at the present location of the East Gap, and the "island" (as it was always erroneously known prior to this event) became island after all—at least to the west of the breach. Despite, or perhaps because of, the separation of the islands from the rest of the peninsula, cottages flourished in the Ward's Island and Hanlan's Point areas (Figure 30). For a time, the site became a resort for people with means, with hotels, yachting and boating clubs, and an amusement park at hand to residents who could pay the cost of city-licensed private leasing (Careless 1984:97).

In the late nineteenth-century plans were made to create public parkland on the island, and breakwaters were constructed to protect the island and the harbour from erosion. The filling and alterations to the configuration of Toronto's new islands and water channels continued for years (Figure 31). Perhaps most dramatically, in the 1930s, a site at Hanlan's Point was chosen for one of two municipal airports. Considerable filling took place to provide the necessary land before the airport opened in 1939.

Archaeological Potential

The Toronto Islands are underlain by shales, interbedded dolomitic siltstone, and minor limestone of the Upper Ordovician-aged Georgian Bay Formation (Freeman 1979). This bedrock is mantled by approximately 30 metres of Quaternary deposits, primarily nearshore deposits of sand and silt laid down during the Holocene (Figure 32) as well as extensive deposits of modern fill (Freeman 1976; Sharp 1980).

Although portions of the original sandbar can be inferred from historic mapping, only soil testing will be able to confirm the land composite, and archaeological potential by extension. It should also be noted that during the early nineteenth century, contractors regularly came to the peninsula and removed sand to aid their mainland construction. Like E5, precontact aboriginal potential exists in areas that comprise portions of the original peninsula. Anecdotal evidence from historic sources

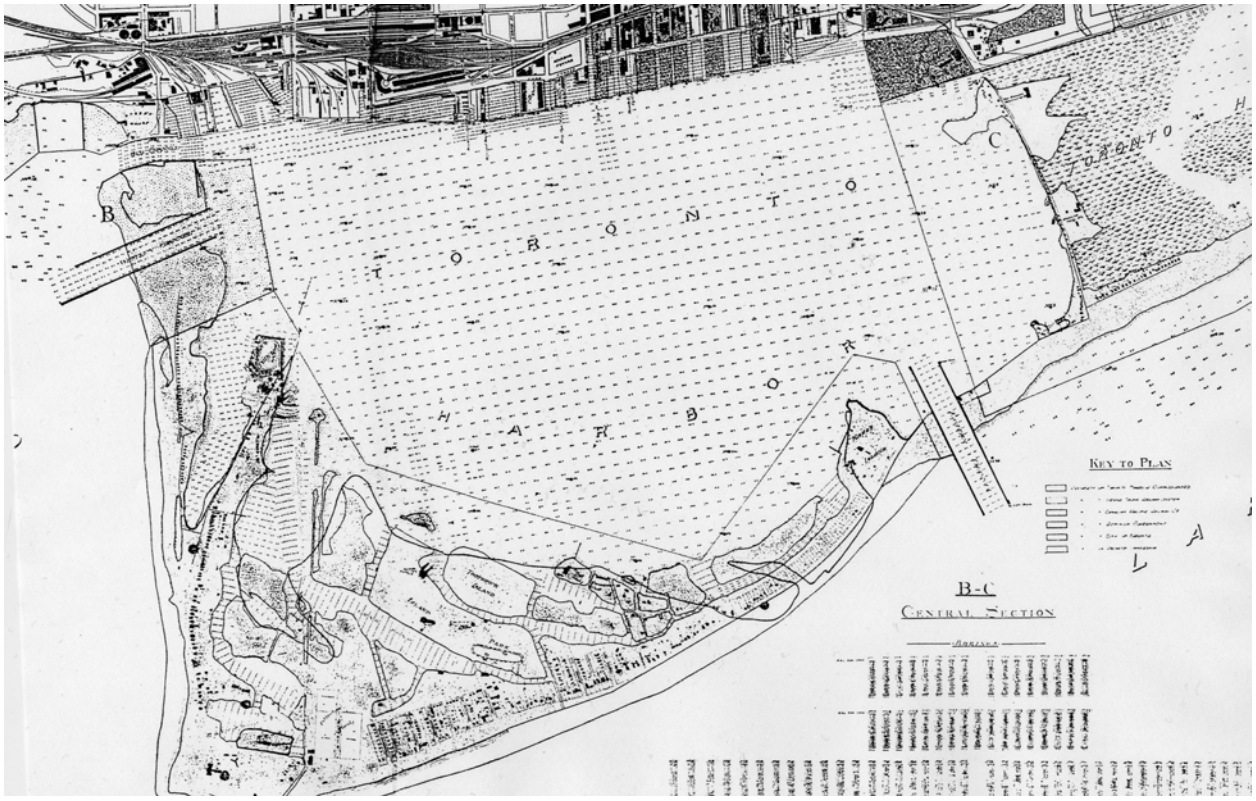


Figure 31: Toronto Island as depicted on the 1912 Toronto Harbour Commissioners Waterfront Development Property Ownership Plan.

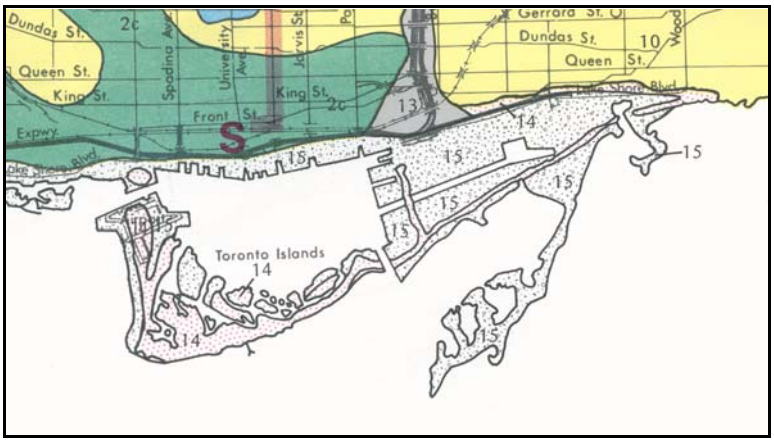


Figure 32: Quaternary Geology of the Toronto Islands (from Sharp 1980). *2c (green) = Sunnybrook till, 5a (blue) = deep-water silt/clay, 10 (yellow) = Lake Iroquois sand, 13 (dark grey) = recent alluvium, 14 (red stipple) = recent Lake Ontario nearshore sands/silts, 15 (grey tone) = modern fill*

suggests that burials may have taken place on this portion of the peninsula, while temporary encampments are also known to have existed over time. It is unlikely, given the massive disturbance to the original Gibralter Point area (in particular, the construction of the Toronto Island Airport), that any evidence of the brief York military settlement, comprising a blockhouse and a storehouse, is still in existence. However, the 1809 lighthouse is yet extant and combined with the site of the lighthouse keeper's cottage represents an area of potential for the study of domestic material culture over time. Of similar interest would be the sites of the many tents and cottages that populated both the eastern and western areas of the peninsula, as well as the variety of hotels and taverns that catered to vacationing Torontonians.

One of two registered archaeological sites on the island (AjGu-20), excavated by Don Brown, was an historic refuse dump of circa1860-1890, attesting to the occupation of lands during the late nineteenth-century cottaging period. The other site, registered by Charles Garrad, is the supposed (though undetermined) location of a Mississauga campsite.

3.6 Defining Archaeological Potential

The mapping of the inventoried features and potential zones within the study area proceeded largely on the basis of the results of previous research projects. In most of the western and central portions of the study area, these studies have resulted in grading the significance of potential resources according to their integrity and significance. Fewer such studies have been completed in the eastern portion of the study area. This has resulted in less complete knowledge of the buried heritage features along the shoreline from Yonge to the Cherry Street/Keating Channel and within the former Ataratiri lands, which lie roughly between the Don River, Parliament Street, Eastern Avenue and the CN rail lines.

Accordingly, two archaeological potential zones have been delineated on the accompanying maps:

Level 1 Archaeological Potential Zones: comprise those lands where archaeological potential has been confirmed to exist on the basis of the results of this and other studies. As discussed in Section 4.0, impacts within these zones must be preceded by a Stage 1 and 2 archaeological resource assessment.

Level 2 Archaeological Potential Zones: comprise those lands where archaeological potential can neither be confirmed nor ruled out on the basis of the data available from previous studies. As discussed in Section 4.0, impacts within these zones must be preceded by a Stage 1 archaeological resource assessment, which will determine if a Stage 2 assessment is required.

The balance of the study area comprises those lands that do not exhibit archaeological potential in consequence of twentieth century development and accompanying disturbances. Impacts within these zones need not be preceded by an archaeological resource assessment.

4.0 PLANNING FOR THE ARCHAEOLOGICAL RESOURCES IN THE CENTRAL WATERFRONT AREA

This section of the report presents the provincial planning and policy context for the study as well as a series of recommendations for the future management of archaeological features within the City

4.1 The Threats To Archaeological Resources

Protecting archaeological sites has become especially important in southern Ontario, where landscape change has been occurring at an ever increasing rate since 1950, resulting in substantial losses to the non-renewable archaeological record.

The scale of the threats facing the archaeological record of southern Ontario were considered in a study in which rates of demographic and agricultural change were examined over the last century, and estimates generated of the number of archaeological sites that have been destroyed (Coleman and Williamson 1994). While the period of initial disturbance to sites was from 1826 to 1921, when large tracts of land were deforested and cultivated for the first time, that disturbance typically resulted in only partial destruction of archaeological data as most subsurface deposits remained intact. However, extraordinary population growth in the post-World War I period, resulted in a more disturbing trend as large amounts of cultivated land were consumed by urban growth.

Indeed, consideration of development within the Region of York, including the City of Toronto, in the post-World War II period provides an instructive example of the nature and potential magnitude of the threat that continued landscape change poses to a finite and non-renewable archaeological resource base. It is possible that almost 2,400 sites were destroyed in York Region between 1951 and 1991, with the majority of this destruction occurring prior to 1971 (Coleman and Williamson 1994: Tables 2 and 3). Much of this resource loss may be directly attributable to housing, commercial and industrial development within urban areas, resulting in the concomitant total destruction of archaeological features. It is further estimated that approximately 25 percent of these sites (approximately 600) represented significant archaeological resources that merited some degree of archaeological investigation, since they could have contributed meaningfully to our understanding of the past.

While there has recently been a marked reduction in the rate of archaeological site destruction throughout much of the province, since certain municipalities adopted progressive planning policies concerning archaeological site conservation, the potential for the loss of archaeological resources in the future remains great, due to continuing growth and re-development.

4.2 Jurisdiction Over Archaeological Resources

In terms of direct conservation and protection, the lead provincial government role has been filled by the Minister of Culture. The Minister is responsible for encouraging the sharing of cultural heritage and for determining policies, priorities and programs for the conservation, protection and preservation of the heritage of Ontario (Cuming 1985). In order to maintain a professional standard of archaeological research and consultation, the Minister is responsible for issuing licences to qualified individuals, without which archaeological activities involving exploration, survey or field work are illegal. All reports submitted to the Ministry, as a condition of an archaeological licence, are reviewed by Ministry staff to ensure that the activities conducted under a licence meet current technical guidelines, resource conservation standards, and the regulations of the Ontario Heritage Act.

The rationale for a greater sharing of responsibilities between provincial and local governments for all types of heritage including archaeological resources was explained most effectively in a document entitled *A Strategy for Conserving Ontario's Heritage* (Ontario Heritage Policy Review 1990). This document suggested a re-allocation of roles, in which the provincial government would maintain an advisory function and the municipal governments would assume the day-to-day responsibility for monitoring those archaeological features in their jurisdiction.

4.3 Provincial Legislation

The specific provincial legislation governing planning decisions is complex, but provides for a number of opportunities for the integration of archaeological conservation. The two principal pieces of legislation are the Planning Act and the Environmental Assessment Act. Despite the on-going provincial transfer of review responsibilities, well over 1,000 formal development applications throughout the province, under both Environmental Assessment and Planning Act processes, are reviewed annually by the Ministry of Culture. Consequently, approximately 300 to 500 archaeological sites have been documented annually in southern Ontario since 1990 as a result of planning mechanisms (Ferris 1998).

The Planning Act

Section 2 of the Planning Act requires that municipalities "in carrying out their responsibilities under this Act, shall have regard to, among other concerns, matters of provincial interest such as … (d) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest". Moreover, new heritage policies in the Provincial Policy Statement under Section 2.5.2 "Cultural Heritage and Archaeological Resources" state in the case of archaeological resources:

> *Development and site alteration may be permitted on lands containing archaeological resources or areas of archaeological potential if significant*

> *archaeological resources have been conserved by removal[1] and documentation or 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 will be permitted.*

For the above policy statement, Significant Archaeological Resources are defined as follows:

> *the remains of any building, structure, activity, place or cultural feature, which because of the passage of time is on or below the surface of the land or water, and which has been identified and evaluated and determined to be significant to the understanding of the history of a people or a place. The identification and evaluation of this resource is based upon an archaeological assessment.*

Provincial interests in land use planning are detailed in the Provincial Policy Statement issued under Section 3(1) of the Act. Section 3(5) of the Act states:

> *in exercising any authority that affects a planning matter, the council of a municipality, a local board, a planning board, a minister of the Crown and a ministry, board commission or agency of the government, including the Municipal Board, shall have regard to the policy statements.*

Thus all decisions that affect a planning matter, regardless of the identity of the development proponent or the relevant approval agency, must have regard for potential heritage resource impacts. Sections 2 and 3 of the Act, along with other sections of the Act, permit a municipality to require that an archaeological assessment be completed prior to the approval of most planning applications relating to lands that contain areas of archaeological potential.

In the interest of meeting legislated processing deadlines under the Planning Act, it is appropriate and acceptable to make the requirement to undertake an archaeological assessment a condition of approval rather than a pre-requisite.

In the case of a zoning by-law, however, Section 36 allows a municipality to attach a holding "H" symbol to a zoning by-law and require that as a condition of removing the holding symbol, and before development can proceed, an archaeological assessment or other matter be completed. Site Plan Control requires the approval of plans by the municipality, which implies that due regard has been given to matters of provincial interest.

In regard to municipal projects, the Planning Act under Section 24(1) states that where there is an Official Plan in effect, no public work shall be undertaken that does not conform with the Plan. Section 34 (1) 3.3 of the Act also permits municipalities to pass zoning by-laws: "for prohibiting any use of land and the erecting, locating or using of any class or classes of buildings or structures on land that is the site of a significant archaeological resource".

[1] "Removal" of an archaeological resource is accomplished through mitigative documentation and/or excavation.

In summary, a municipality is obligated, within the existing legislative framework, to have regard for archaeological concerns in connection with any planning application and is able to require that an archaeological assessment be undertaken for most applications relating to lands containing areas of archaeological potential. The City can also pass zoning by-law(s) regulating the use of land that is the site of a significant archaeological resource. Moreover, a municipality is prevented from undertaking any public work that does not comply with its Official Plan. Heritage protection policies are appropriate in Official Plans, if developed and incorporated properly. If a municipality has a sound basis in its policies (Official Plan), it is possible to refuse applications that do not conform to heritage requirements.

The Heritage Operations Unit of the Ministry of Culture has the primary responsibility under the Planning Act for matters relating to cultural heritage including archaeological resources. One of their primary responsibilities is to oversee the Municipal Plans Review process. The first component of this process is the determination of the potential for a development application to impact archaeological resources, based on a range of environmental and historic criteria. Should it be determined that there is potential for impacts to archaeological resources resulting from the approval of the development application, then the second component is the requirement that the development proponent undertake an archaeological assessment, the results of which are subject to Ministry of Culture review and approval. Such assessments may be required for smaller-scale developments reviewed under consent and zoning by-law amendment applications. In all of those cases where potential is identified on all or a portion of a subject property, a standard archaeological condition is attached to the development application.

The current condition recommended by the Ministry of Culture reads:

> *The proponent shall carry out an archaeological assessment of the subject property and mitigate, through preservation or resource removal and documentation, adverse impacts to any significant archaeological resources found. No grading or other soil disturbances shall take place on the subject property prior to the City of Toronto and the Ministry of Culture confirming that all archaeological resource concerns have met licensing and resource conservation requirements.*

While a generic primer has been developed by the Ministry of Culture (1997) for informing municipal planners about evaluating archaeological potential, those municipalities that have undertaken detailed archaeological potential studies or master plans have access to much more detailed information, that provides more effective and accurate means of determining archaeological potential and whether or not an assessment will be required. The review of site specific development applications, for the purpose of determining if archaeological resources or areas of archaeological potential are present, is now made directly by the City of Toronto, sometimes in consultation with the Province.

In the case of the Central Waterfront Area, this can now be accomplished through the use of this Archaeological Master Plan, consisting of potential mapping, explanatory text, and policies and procedures for implementation of the study's conclusions. Review of the resulting archaeological investigations, in order to determine that Heritage Act and Planning Act requirements have been

satisfied, remains the responsibility of the Ministry of Culture, which provides notification to the approval authority and the development proponent of the results of their review. That Ministry also administers all matters related to the management of the resources documented, mitigation strategies proposed, and any disputes arising from the conservation of archaeological resources under the land use planning process.

The Environmental Assessment Act

The Environmental Assessment Act, applies to public sector projects and designated private sector projects. Private sector projects that are designated by the Province as subject to the Act are usually major projects such as landfills. The purpose of the Act is "the betterment of the people … by providing for the protection, conservation and wise management in Ontario of the environment" (Section 2). Environment is very broadly defined to include "the social, economic and cultural conditions that influence the life of humans or a community" [Section 1(c)(iii)] and "any building, structure … made by humans" [Section 1(c)(iv)]. Thus, "environment" would include heritage artifacts and structures.

The Environmental Assessment Act requires the preparation of an environmental assessment document, containing inventories, alternatives, evaluations and mitigation. It is subject to formal government review and public scrutiny and, potentially, to a tribunal hearing. Heritage studies of these major undertakings are a common component. There are also Municipal Engineers Association (MEA) Class environmental assessments for municipal projects that require similar considerations, but entail a simplified review and approval process.

Various provincial ministries are establishing protocols related to activities subject to the environmental assessment process, in order to ensure that heritage concerns in their respective jurisdictions are addressed. The Ontario Ministry of Transportation, for example, ensures that archaeological surveys are undertaken in advance of all new road construction in order to ensure that no archaeological sites will be unknowingly damaged or destroyed, and the Ontario Ministry of Natural Resources prepared a set of guidelines on the conservation of heritage features as part of the Timber Management Planning Process.

Other Provincial Legislation

Other land use legislation in the province provides opportunities for archaeological resource protection. The Aggregate Resources Act governs the approval of pits and quarries and is administered by the Ministry of Natural Resources. The development of a pit or quarry will often require an official plan amendment or zoning by-law amendment, and thus would require involvement by the municipality at either the upper or lower tier level. The process for addressing archaeological concerns is similar to that outlined for Planning Act related projects. A background study, field survey and detailed archaeological investigations are all identified as required Technical Reports under Part 2.2 of the *Provincial Standards for Bill 53 under the Aggregate Resources Act*.

The Cemeteries Act (Revised) addresses the need to protect human burials, both marked and unmarked, which are yet another valuable link to the past. The discovery of burials at archaeological sites will require further investigation in order to define the extent and number of interments, and either the registration of the burial location as a cemetery, or the removal of the remains for re-interment in an established cemetery. The actual workings of this process are complex and vary depending upon whether the burial(s) are an isolated occurrence, or part of a more formal cemetery, and whether the remains in question are Aboriginal or Euro-Canadian. In all cases, the success of the process is dependent upon the co-operation of the landowner, the next of kin (whether biological or prescribed), and the Cemeteries Registrar (Ministry of Consumer and Business Services). The Ministry of Culture's role in the process is to assist in co-ordinating contact and negotiation between the various parties, and ensuring that archaeological investigations of such burial sites meet provincial standards.

With this legislative planning context, success in protecting heritage features depends on sufficient resource information, sound policies, the capability to implement requirements, and participation by both local and provincial heritage planners in the process.

4.4 Federal Legislation

The federal government's Archaeological Heritage Policy Framework (Department of Canadian Heritage 1990) states that:

> *As heritage protection is an essential element of our Canadian identity, and as our archaeological heritage is a source of inspiration and knowledge, it is the policy of the Government of Canada to protect and manage archaeological resources.*

In order to realize these objectives on all lands and waters under federal jurisdiction, the Federal Archaeology Office of the Department of Canadian heritage (DCH), has an advisory role for the protection and management of all archaeological resources on all lands and waters under federal jurisdiction. The Federal Archaeology Office is also recognized as an "expert department" for matters involving implementation of specific legislation in the Canadian Environmental Assessment Act, where it is outlined that the Government of Canada seeks to conserve and enhance environmental quality and to ensure that the environmental effects of projects receive careful consideration before responsible authorities take actions in connection with them. An "environmental effect", in respect of a project, is defined to include:

> *Any change that the project may cause in the environment, including any effect of any such change on health and socio-economic conditions, on physical and cultural heritage, on the current use of lands and resources ...*

Subject to a number of exceptions, the Canadian Environmental Assessment Act applies to a project if that project received federal funding, involves the leasing, purchase or transfer of federal land, or requires a federal authority to issue a permit or grant an approval in certain prescribed circumstances.

4.5 Ownership

The question of ownership of archaeological resources, whether they be sites or individual artifacts has never been adequately resolved in Ontario. Consequently, issues of ownership have often complicated the protection or conservation of the resource.

This situation led the Ministry of Culture's Advisory Committee on New Heritage Legislation to the suggestion that:

> *Ontario should follow the lead of many provincial governments in asserting Crown ownership of archaeological objects. This cuts out all claims but those of true owners. In the case of material of Aboriginal origin, however, such an approach may be inconsistent with current steps toward First Nations' self-government and jurisdiction over certain matters. Resolution of this matter should be negotiated with First Nations* (Minister's Advisory Committee 1992:42).

If the Crown is to become the custodian of such materials, however, it will first be necessary to make better provision for their storage, curation and access to interested individuals or groups, than currently exists (OHPR 1992:59). Furthermore, it will be essential to resolve the equally legitimate, but frequently conflicting, interests of First Nations, the scientific community and of society in general, regarding the ultimate disposition of pre-contact archaeological remains. Such an objective will only be met through a long process of negotiation and consultation among these groups. The first steps, however, have been taken in this regard. In the late 1980s, the Assembly of First Nations and the Canadian Museums Association together sponsored a Task Force on Museums, the purpose of which was to develop an ethical framework and strategies by which Aboriginal peoples and cultural institutions can work together to represent Aboriginal history and culture. The results of extensive consultations carried out by the Task Force are available in the *Task Force Report on Museums and First Peoples*. Also, the Canadian Archaeological Association together with the Federal Department of Communications sponsored an extensive program of consultation with aboriginal communities across Canada resulting in a *Statement of Principles for Ethical conduct Pertaining to Aboriginal Peoples*, which should serve to guide the actions of Canadian archaeologists (Nicholson et al. 1996). While neither of these documents asserts singular ownership of artifacts, they both provide guidelines regarding their interpretation and presentation to the public.

With regard to the matter of ownership of artifacts under current provincial legislation, the legislation under which archaeologists are licensed to carry out archaeological activities is the Ontario Heritage Act. This legislation stipulates, under subsection 66(1), that "The Minister may direct that any artifact taken under the authority of a licence or a permit be deposited in such public institution as the Minister may determine, to be held in trust for the people of Ontario". Moreover, under clause 6(a) of Regulation 881, pertaining to licensing under the above Act, it is a term and condition of a licence "that the licensee keep in safekeeping all objects of archaeological significance that are found under the authority of the licence and all field records that are made in the course of the work authorized by the licence, except where the objects and records are donated to her Majesty the Queen in right of Ontario or are directed to be deposited in a public institution under subsection 66(1) of the Act."

The application of this section of the Act and this regulation typically involves the curation of recovered artifacts by the archaeologist until such time that the analyses are complete and that a place for ultimate disposition can be arranged, usually a fully accredited public repository. It is also generally assumed that archaeologists will consult with the landowner and/or their client to decide upon the location for the ultimate disposition of artifacts. In general, it is desirable that material from a particular archaeological site are ultimately deposited in a public institution located in the same community (either a local museum or a First Nation cultural centre), provided that adequate storage, curatorial facilities for both artifacts and field records are available, that the institution's collections are accessible to researchers, and that the material is not transferred or disposed of without provincial approval.

4.6 Conserving Archaeological Resources: Opportunities And Obstacles

In the protection of archaeological sites from land use disturbances or infrastructure facilities, the major characteristics of both archaeological sites and "planning" have a bearing on success. Archaeological resources have many distinct attributes that make their protection a challenging task. Not only are they fragile and non-renewable, but from a planning perspective one of their most important characteristics is that they are frequently located on private property. Thus, any policy must attempt to satisfy the dual, and sometimes conflicting objectives of respecting certain private property rights while at the same time, protecting a resource valued by society. "Planning" is generally undertaken in an effort to seek a common or public good that market forces and private interests do not seek. Within the context of planning and development approval, archaeological sites are similar to ecological features in that they may not have a tangible market value. Moreover, traditional benefit-cost valuation techniques are unable to price the resource accurately in market terms, since there is no legitimate market for archaeological artifacts. Consequently, individuals responsible for the disruption of archaeological sites may not comprehend the value of preservation to society, a factor which as an obvious impact on protection policies.

On the other hand, the nature of the decision-making process constitutes one of the major and unique characteristics of planning in Ontario. Indeed, properly documented heritage criteria are often considered in the determination of the form, spatial extent and character of land disturbances. Also, the involvement of public and interest groups is encouraged or mandatory, such that decisions are sensitive to community concerns and are discussed openly. Moreover, the review and approvals process permits administrative hearings on matters at issue, with an independent decision. Thus, there is the opportunity to protect or conserve heritage features by selecting least damaging alternatives, through participation in planning decisions and in the review and approvals process.

4.7 Implementation

Introduction

As discussed above, the role of municipalities in the conservation of heritage features is crucial. Planning and land use control are predominantly municipal government responsibilities and the impact of municipal land use decisions on archaeological resources is significant, especially since municipally-approved developments constitute the majority of land disturbing activities in the Province (Hansen 1984). Without adequate screening at a municipal level, the provincial government is unable to ensure protection for valued archaeological resources. Viewed from this perspective, archaeological protection cannot be implemented without municipal involvement.

Indeed, the primary means by which resources are best protected is through the planning process. This requires the development of appropriate policies for the City of Toronto and their incorporation into the review process. At present, the City and its Committee of Adjustment are the approval authorities for all planning applications.

New Procedures

The archaeological review procedure proposed by this Archaeological Master Plan will require close co-operation between the Culture Division staff and Department of Urban Development Services, the staff of the Heritage & Libraries Branch of the Ministry of Culture, as well as the development and archaeological communities. This procedure will be applicable to all applications made under the Planning Act, except for applications made under sections 41 (site plan approval) or 70.2 (development permits[2]) of the Act, in areas of Level 1 and Level 2 archaeological potential (as indicated on the accompanying maps).

Small-scale consent applications should also be reviewed in order to determine impacts upon potential archaeological resources, although the need for a subsequent archaeological assessment will probably be less frequent. While these impacts may be more restricted in extent and will be a less frequent concern, the city will need to recognize when a small scale Planning Act development application should have regard for Provincial Policy 2.5.2 under the Planning Act.

An archaeological condition should be applied for any consent application which creates a new building lot (on land that is presently vacant) if:

- The application is situated within the zone of archaeological potential, or
- The application contains or will directly affect a federal, provincial, or municipal historic landmark, monument, site or designated property.

[2] Under the current Regulation (O.Reg. 246/01).

Archaeological conditions of approval involving archaeological assessments, determination of mitigation methodologies, and the undertaking of archaeological site mitigation should be applied as early as possible in the development application and approval process, always prior to any site disturbance. This will minimize delays and provide an opportunity to tie the review of large-scale applications directly to a predetermination of archaeological concerns associated with a property, and even provide the opportunity to ensure that any outstanding heritage concerns are identified or resolved will in advance of submission of a formal application to the City. As the development and implementation of mitigation or preservation options for significant archaeological resources may occasionally be comparatively time-consuming activities, it is to the development proponent's advantage to identify, schedule and budget for any mitigation measures at the earliest possible opportunity. Therefore, determination of the need for an archaeological assessment may be made in consultation between the applicant and City staff prior to the submission of a final application for a site within the area of archaeological potential.

Establishing these procedures will address the provincial interest in archaeological resources identified in the Planning Act and the related components of both the Federal and Provincial Environmental Assessment Acts.

The new archaeological procedure should also apply to municipal development and/or infrastructure projects that might disturb soils in areas of archaeological potential. Any on-site activities such as site grading, excavation, removal of topsoil, or peat and the placing and dumping of fill, building construction; drainage works, except for the maintenance of existing municipal drains, should be subject to the same procedures.

4.8 The Planning Review Process

The following outlines the basic procedure recommended for use in the development review process for all planning applications within the Central Waterfront Zone of the City of Toronto, except for applications under sections 41 (site plan approval) or 70.2 (development permits[3]) of the Planning Act (Figure 33).

[3] Under the current Regulation (O. Reg. 246/01).

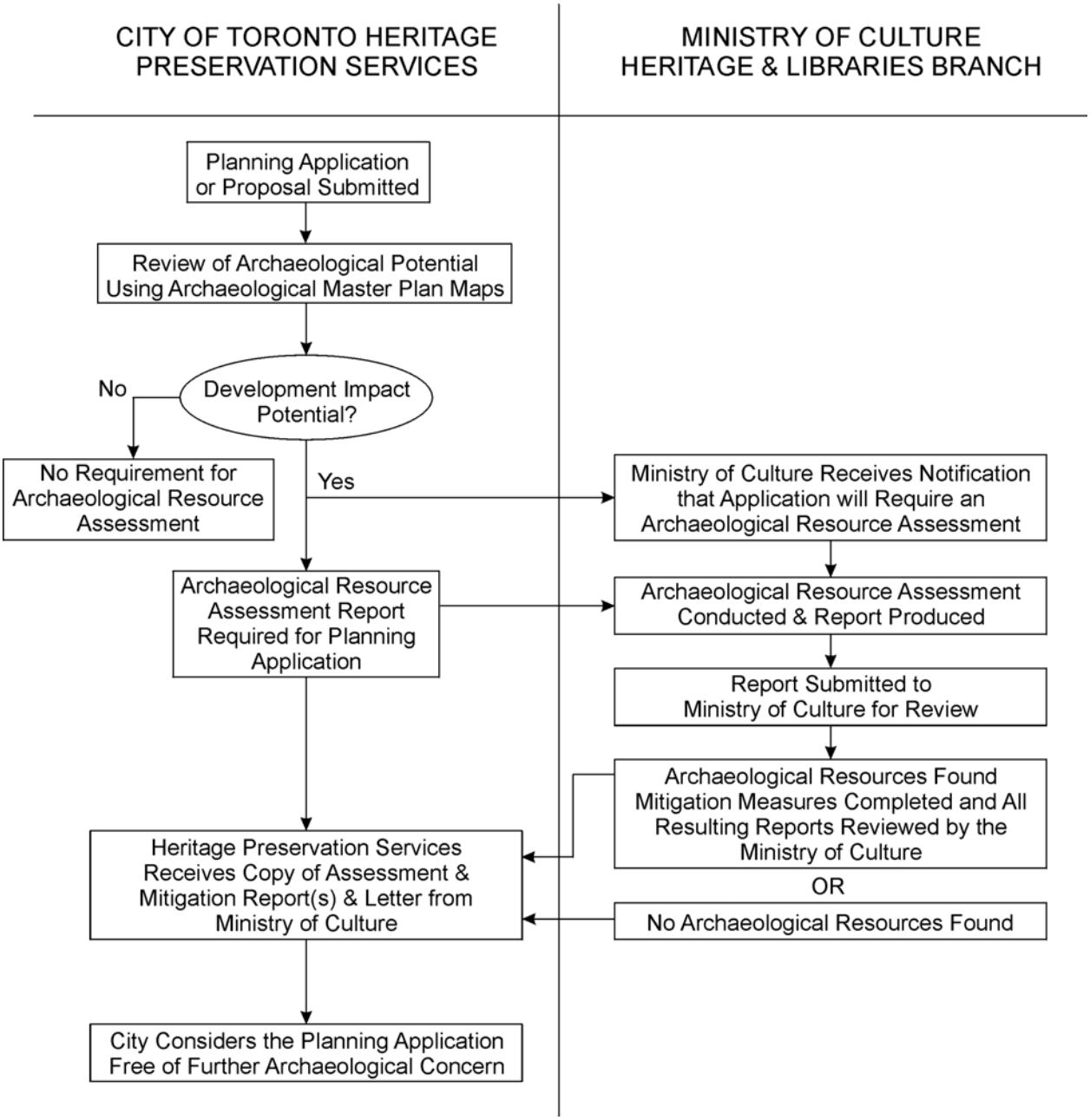


Figure 33: Planning Review Process

The general sequence of actions is as follows:

1) As part of the consultation process, Culture Division staff will determine if an archaeological assessment is required for a proposed application by means of review of the archaeological potential mapping. Should any portion of the property fall within a Level 1 or Level 2 zone of archaeological potential, then the Culture Division will require that the applicant undertake an archaeological assessment. Preferably, the assessment should be completed and submitted as part of the application. The Ministry of Culture must be provided with a copy of the notice from the Culture Division that an archaeological assessment will be required of the applicant. The Ministry of Culture will require this in order to complete their review of the archaeological assessment and to be able to provide the applicant and the City of Toronto Culture Division, each, with a letter recommending clearance of outstanding archaeological concerns.

2) When part of a proposed development falls within a Level 1 zone of archaeological potential, the applicant must retain a licensed archaeologist to conduct a Stage 1 and 2 archaeological assessment. When part of a property falls within a Level 2 archaeological potential zone, the applicant must retain a licensed archaeologist to conduct a Stage 1 archaeological assessment. In either case, the **entire** subject property must be assessed, not simply the portion(s) that falls within the Level 1 or Level 2 zones. Any deviation from this approach must be approved by the Ministry of Culture. Also, all work conducted by the archaeologist as a result of the archaeological condition must conform to the standards set forth in the most current *Archaeological Assessment Technical Guidelines* authorized by the Ministry of Culture.

WORDING FOR THE ARCHAEOLOGICAL CONDITION:

1. The applicant shall retain a consultant archaeologist, licensed by the Ministry of Culture under the provisions of the Ontario Heritage Act (R.S.O. 1990), to carry out an archaeological assessment of the entire development property and mitigate, through preservation or resource removal and documentation, adverse impacts to any significant archaeological resources found.

2. The consultant archaeologist shall submit a copy of the relevant assessment report(s) to the Heritage Preservation Services Unit.

3. No demolition, construction, grading or other soil disturbances shall take place on the subject property prior to the City's Culture Division (Heritage Preservation Services Unit) *and* the Ministry of Culture (Heritage Operations Unit) confirming, in writing, that all archaeological licensing and technical review requirements have been satisfied. In some locations in the waterfront planning area, it may be appropriate to schedule field assessment in conjunction with construction if the potential feature is deeply buried and the Ministry of Culture approves the approach.

A Stage 1 assessment consists of background research concerning registered sites on the subject lands or within close proximity, as well as the environmental character of the property and its land use history.

A Stage 2 assessment consists of field survey to document any sites that may be present on a property. It should be noted that completion of an archaeological field assessment of a particular development property, no matter how rigorous, does not fully guarantee that all significant archaeological resources on that property will be identified prior to land disturbance. This is particularly the case in areas where processes such as filling, flooding or erosion have resulted in the burial of original ground surfaces, or with respect to isolated human burials that are typically small features that can escape detection.

Stage 3 investigations are designed to secure a detailed understanding of the nature and extent of a site and may involve complete or partial systematic surface collection and test excavation.

Stage 4 undertakings comprise extensive excavation; comparative analysis and interpretation of content and contextual information. Further discussion of the various mitigative options may be found in Section 4.9 below.

3) Once the archaeological assessment, consisting of background research, or background research and a field survey, has been completed, the archaeological consultant will submit a report to the Heritage Operations Unit of the Ministry of Culture. The Ministry of Culture staff will review the report to determine if the assessment has met current licensing and technical standards. If this is not the case, the Ministry of Culture will require the consultant to carry out additional field work, and/or provide more extensive documentation.

4) If the assessment complies with current licensing and technical standards and did not result in the identification of any archaeological potential within the property (in the case of a Stage 1 assessment) or did not result in the documentation of any significant archaeological resources (in the case of a Stage 1-2 assessment), the Ministry of Culture will provide a letter to both the development applicant and the Culture Division, which will serve to notify them that all provincial concerns with respect to archaeological resource conservation and archaeological licensing have been met. Upon receipt of this notification of the Ministry of Culture approval, and supporting documentation from the archaeological consultant, the Culture Division may then clear the planning application of any further archaeological concern.

5) If a Stage 1 assessment of a property within the Level 2 archaeological potential zone confirms that potential does indeed exist, then a Stage 2 assessment must be completed.

6) If the assessment did result in the documentation of one or more significant archaeological resources, appropriate mitigation and/or preservation options must be recommended by the licensed archaeologist and approved by the Ministry of Culture. Upon completion of the mitigation, the archaeological consultant must provide a report detailing this work and its results to the Ministry of Culture, which will review the work and recommend to the consultant and the Culture Division that there are no further archaeological concerns, or that additional mitigations be undertaken, as the case may be.

   It should be noted, in this regard, that even if one or more significant archaeological sites that will require further mitigation are documented during the course of an assessment, it is generally possible to secure partial clearance for the property, in that the archaeological requirement may be removed from the balance of the subject lands not encompassed by the archaeological site(s) and suitable protective buffer zones. Similarly, although the final report of a comprehensive archaeological mitigation may take many months to complete, final clearance for the property may be available upon the archaeological consultant completing the fieldwork and submitting a brief executive summary to the Ministry of Culture staff, and the proponent providing information regarding any outstanding concerns (e.g., commitment to production of the final report).

7) Upon receipt of notification that all Ministry of Culture archaeological conservation and licensing concerns have been addressed, and receipt of the necessary supporting documentation from the archaeological consultant, the Culture Division will clear the planning application of further archaeological concern.

Toronto Waterfront Co-operative Environmental Assessment Process

The same sequence of actions should be followed for undertakings completed through the Toronto Waterfront Co-operative Environmental Assessment process. The purpose of the Toronto Waterfront Co-operative Environmental Assessment Process is to enable the process of complying with federal and provincial environmental assessment requirements to proceed in a timely manner. This will permit the Toronto Waterfront Revitalization Corporation to undertake proper management of the infrastructure construction and development processes for the Waterfront Revitalization.

The Toronto Waterfront Co-operative Environmental Assessment process provides for the consolidation of planning and assessment work that has been undertaken on the Toronto Waterfront over the last decade. It seeks to provide protection and wise management of the environment

through the use of regional environmental assessment. The process will provide for the completion of environmental assessments for a large number of highly interrelated and spatially crowded projects in a relatively short period of time and will reduce overlap and costs.

The Municipal Project Review Process

For municipal projects, whether or not they are subject to the Federal or Provincial Environmental Assessment Act, the same process will be followed. Should the project impact areas of archaeological potential, the completion of an assessment and any necessary mitigation, subject to the approval of the Ministry of Culture, will be required.

Development Permit System

Within the Central Waterfront Part II plan area, the Department of Urban Development Services is recommending that the area be covered by a Development Permit By-law. The Development Permit System would not apply to the Toronto Islands at this time. Under Section 70.2 of the Planning Act, a municipality may, if permitted by provincial regulation, establish a Development permit system to control development. This system allows a streamlined municipal approval process by consolidating the current zoning, site plan control and minor variance processes into one process. The Central Waterfront Area is included within Schedule 1 of Ontario Regulation 246/01 as an area that may be established as a development permit system area. However, under this Regulation, no authority currently exists to require an applicant to undertake an archaeological assessment as a condition of a development permit approval.

4.9 Assessing Resource Impacts and Identifying Mitigation Strategies

If no adverse impacts to an archaeological resource will occur, then development may proceed as planned, however, a contingency plan should be designed for implementation throughout the process to ensure protection of a previously undetected resource (*e.g.*, a deeply buried deposit) and for its rapid investigation.

Should a significant archaeological resource be discovered during the course of an assessment, the development proponent, the archaeological consultant, the Ministry of Culture, and the Culture Division must assess the potential impact to an archaeological resource and arrive at rational decisions regarding integration of that resource within the site or development plan or the implementation of mitigative options.

The review process at this stage, therefore, requires the input of the proponent in order to make the decisions regarding potential adverse effects to a site. Should a site be threatened, the two available options are to immediately integrate the site into the development plan through re-allocation of open space/community park space or provide for mitigative procedures. The decision-making process with respect to mitigative procedures may be subject, however, to a cost benefit analysis where the

mitigative option involves input from all of the stakeholders, *i.e*. Culture Division, Ministry of Culture, the heritage community and the development proponent (either public sector or private sector). The Aboriginal community might also be consulted throughout the site mitigation process. As discussed below, there are a number of mitigative options including avoidance, modifications to construction techniques, and various degrees of documentation and/or excavation. In all cases, thought should be given to the interpretive and educational potential of the site.

It should also be noted that detailed information regarding a site is frequently required in order to make a more accurate assessment of significance and to determine the potential for adverse effects. This may involve different levels of on-site investigations (i.e. Stage 3 assessment information).

All management decisions that are made during the development process regarding a particular archaeological site must be informed by an assessment of that site's significance. It is only after such an evaluation that the most appropriate mitigative strategy, both in terms of resource protection and in terms of successful integration within the overall development plan, can be identified. This evaluation depends, in turn, upon information recovered during the course of the archaeological resource assessment that led to its discovery.

The process of site significance evaluation is based on a number of overlapping criteria. These are to be used in the evaluation of specific archaeological features and not to compare areas of archaeological potential. These criteria, therefore, must be applied on a case-by-case basis. They fall into two basic categories: information potential and perceived value.

Information potential is generally determined through objective assessment of the numerous factors which may be expected to affect a particular archaeological resource's potential contribution to an increased understanding of the past. Such an assessment must be carried out through consideration of the following site attributes.

- *Site integrity*: the nature and extent of disturbance or physical alteration to which a site has been subject. Site integrity often influences the degree to which reliable data can be derived. Potential forms of disturbance range from those that are relatively minor, such as rodent or tree root activity, to more severe forms such as ploughing or road and building construction.

- *Context*: temporal and spatial association(s); uniqueness or representativeness of patterns of cultural, political, economic, military or industrial history; inter-site relationships; demonstrated relationship to known historic events, processes and/or people of local, provincial, national or international significance.

- *Content*: site size, density and complexity; range of data types present (*e.g*. ecological information, artifacts, settlement patterns). Sites represented by the recovery of isolated artifacts, for example, are seldom of significance, unless that artifact is rare or represents a relatively unknown temporal period or cultural group.

- *Potential for the presence of human remains*: certain types of sites, such as settlements occupied for relatively long periods of time, may be reasonably expected to contain, or be associated with, isolated human burials or more extensive cemeteries.

- *Quality of documentation*: applies only to large scale features that cover large areas (e.g., cribbing). If good quality drawings, illustrations and written records are available or other portions of the feature have been subject to archaeological investigation and recording, little additional *new or non-redundant* information may be obtained from the archaeological investigation of the feature. If, however, little documentation exists, or it is contradictory, physical examination may be necessary.

The **perceived value** of a specific archaeological site is determined through consideration of a number of factors.

- *Public interest*: the level to which society at large recognizes the significance of a particular archaeological resource or category of resources as representing a source of "sustenance, coherence and meaning in our individual and collective lives" (*OHPR* 1990:18).

- *Educational and economic potential*: the degree to which preservation and/or examination of the site will contribute to the general public's understanding of the past. This factor also reflects the degree to which the site represents an opportunity to form the basis of a long-term educational and interpretive programme aimed at both the local community and the tourism market. The development of such a programme, however, must always strive to achieve an appropriate balance between sensitivity to the natural environment as well as the culture of those whom the site represents, and the objectives of economic and tourism development.

- *Importance to specific ethnic groups*: the extent to which a site contributes to, or maintains, recognition of a particular ethnic group's activities or presence as a factor contributing to the fabric of society at the local, regional or national level.

- *Landscape setting*: applies to archaeological sites manifested as visible ruins or earthworks, as well as to their associated traditions. Archaeological resource removal, even if fully documented, or changes to its immediate surroundings, may modify society's perception of the area, if the visible elements of the site serve as a community landmark, or form an essential part of a vista.

Upon consideration of these significance criteria, further decisions with respect to the need for any further mitigative actions may then be undertaken. Many of the sites routinely encountered will prove to be of little or no significance and will not require further investigation, beyond the mapping, measuring and photographing of the surface attributes of the archaeological site that has already occurred during the course of the initial archaeological assessment.

Where more extensive archaeological mitigation is required, recommended mitigative options may take numerous forms, including:

- *Preservation*: the preferred mitigative option. Preservation may involve long term protective measures such as project design changes (site avoidance) that integrate the resource within the overall development plan. To further avoid both accidental impact and intentional vandalism and looting, additional protective measures may include fencing, screening, or capping (only in special circumstances).

- *Stabilization*: may be required in the case of eroding archaeological deposits. This may involve the salvage excavation of the eroding area and/or the construction of retaining walls or barriers.

- *Systematic Data Recovery*: involves the recovery of data from significant archaeological sites, when other mitigative options are not feasible. It includes a complete or partial systematic surface collection, excavation, or both; a comparative analysis and interpretation of content and contextual information; and production of an investigative report. This mitigation strategy ultimately results in the destruction of the archaeological site.

- *Monitoring*: monitoring may be undertaken (only in specific circumstances) to ensure that adverse impacts on archaeological sites which could not be predicted or evaluated prior to construction are addressed. Monitoring requires the presence of a licensed archaeologist during the construction phase of a project. This takes the form of scheduled site visits and on-call availability during a long term project.

It should be noted that decisions regarding mitigative options or preservation strategies are subject to Ministry of Culture review and approval.

The site preservation/avoidance option has both short- and long-term components. The short-term component involves both the redesign of the development plan (*e.g.*, lot layouts, parkland, road and service alignments) and ensuring that the resource(s) in question are physically protected during construction by means of fencing or other visible barriers. The long-term protective measures entail the use of prohibitive zoning by-laws, as permitted by subsection 34(1) of the Planning Act, or through other conditions or orders that prohibit any future land use activities that might result in soil disturbance.

4.10 Planning Recommendations

In light of the preceding considerations, the following recommendations are made:

Recommended Changes to the City's Official Plan

Recommendation 1
It is recommended that the Official Plan for the City of Toronto be amended to include a section specific to archaeological planning. It is recommended that both a definition of archaeological resources, consistent with the definition laid out in the provincial policy statement, and recognition of their fragile nature, be included. The section should also reflect the Culture Division's commitment to adhering to the planning process identified herein.

Recommendation 2
It is recommended that archaeological assessments be considered as an appropriate provision for the enactment of a holding by-law within the Official Plan.

Recommended Implementation for the Waterfront Part II Plan

Recommendation 3
Where any portion of a proposed development application exhibits potential for the presence of sites, as defined by the site potential maps (i.e., it falls within the Level 1 or Level 2 potential zones), an archaeological resource assessment must be prepared in accordance with current technical guidelines and to the satisfaction of the Ministry of Culture, to determine if an archaeological resource is present, and if so, to determine an appropriate method to protect and manage the resource. Such a report should be submitted to the City of Toronto and the Ministry in the case of all Planning Act applications (except applications under sections 41 and 70.2) and major municipal capital projects. In the case of small-scale consent applications which require an archaeological assessment, the report should also be submitted to the Culture Division and the Ministry prior to any land disturbing activity. In all cases, the plan for protection or salvage of any significant archaeological site(s) found during the course of the assessment must also be approved by the Ministry of Culture, and be implemented prior to land disturbance. It is not necessary to undertake such assessments on those lands that fall within zones identified as being of no potential.

Recommendation 4
The City should also review all building permit applications that fall within the zones of archaeological potential, as defined by the site potential maps. While the Ontario Building Code Act is not a piece of legislation covered by the Provincial Policy Statement on Archaeology, urban development projects may be of special interest.

Recommendation 5
It is recommended that the Culture Division establish guidelines with other agencies of the City (e.g. Exhibition Place) and City departments, such as Corporate Services and Works and Emergency

Services, which ensure that in all appropriate circumstances, construction projects that may negatively impact archaeological resources on public lands (e.g., trail, playground, playing field, public washroom, parking lot construction, road widening/extension, trunk sewer and watermain construction, stormwater management facility construction, municipal building and structure construction) and which are located in areas of potential, are subject to archaeological assessment prior to any land disturbing activity

Other Recommendations

Recommendation 6
In that there are certain situations in which the City has limited planning control, thus being restricted in its ability to implement archaeological management guidelines and given that archaeological assessments may fail to detect significant deeply buried or isolated deposits, it is recommended that the Culture Division develop and adopt, in consultation with the urban Development Services Department, the Ministry of Culture, other appropriate agencies, landowners, and the public, a "Contingency Plan for the Protection of Archaeological Resources in Urgent Situations."

As outlined in archaeological licensing regulations, the Contingency Plan should specify that if deeply buried archaeological remains are found on a property during construction activities, then the Ministry of Culture should be notified immediately. It should further specify that if human remains should be encountered during construction, the development proponent should immediately contact the police, the Ministry of Culture, and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer and Commercial Relations. If the burials are determined to be of Aboriginal origin, the local aboriginal community must also be notified and their assistance sought. In any case in which deeply buried archaeological remains (including burials) are encountered, all construction activity in the vicinity of the discovery should be postponed until an appropriate mitigation strategy and funding are identified and all potential impacts to the feature have been mitigated.

Such a Contingency Plan should address a notification process, involving the City, the land owner, the Ontario Ministry of Culture, and the local Aboriginal community (if relevant) and an investigation and reporting process undertaken by a licenced archaeologist.

4.11 Data Access

Under provincial policy, public access to information concerning archaeological site locations (either graphic or textual) is restricted, in order to reduce the possibility of illegal looting and site destruction. Access to information in the City's possession is determined in accordance with the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA).

Archaeological licence reports provided to the City are subject to MFIPPA and may be subject to copyright restrictions. There is no standard rule regarding ownership of copyright in archaeological

licence reports, which depends, in part, on the nature of the contract between the person who commissioned the report and the authoring archaeologist. If copyright in a licence report is owned by a third party, the City may not reproduce the report without the express written permission of the copyright owner.

4.12 Public Programmes and Interpretation

Site Interpretive Potential and Public Programmes in Archaeology

Concomitant with legislative measures intended to conserve and manage archaeological resources, means by which the general public might be made more knowledgeable of the wide range of archaeological resources present within the Culture Division, and of their significance as part of the area's cultural heritage should also be sought (bearing in mind the necessity that site locations remain confidential). A heightened public awareness of the importance and fragility of archaeological resources can serve as an additional and effective means of protecting those resources.

While the public is generally supportive of environmental causes, we must share with others that humans exist in time as well as space, and that the record of our temporal environment is slowly vanishing. As a science, archaeology often suffers from the attitudes and actions which result from public misconceptions about its motives, aims and methods. It is encouraging to note that when members of the public are made aware of archaeological sites, there exists a genuine interest not only in the prehistory and history of a region, but also in archaeology itself as an academic discipline.

Direct experience with a working archaeological project and its staff can help facilitate a clearer perception of archaeology. This kind of open exchange can clarify misunderstandings and encourage an attitude of cooperation between archaeologists and the public. The public can have an important role to play in archaeological research in the province, although their involvement should be part of a much broader research design and occur only when long-term funding is available. Otherwise, there may not be sufficient funds to properly analyze and report upon the objects acquired during a public program.

Public education programmes on archaeology increase popular knowledge and consequently increase public support for the protection of valuable cultural features. Local examples include the programs of the Toronto Chapter of the Ontario Archaeological Society and the Public Archaeology program operated at the Ashbridges' Bay site by the Ontario Heritage Foundation and the University of Toronto.

The creation of "on site" interpretive facilities can provide the public with an excellent opportunity to view archaeology in its proper context, as an ongoing process. The facility should be associated with an archaeological site, especially one which has high values for information potential, accessible to the public, is within an area where the integrity of the natural setting has been maintained to provide an ecological context, is close to existing support facilities and is available for long-term archaeological research.

Advertising and media coverage are also essential components of any public archaeology programme. Both are necessary to generate interest in the specific activities being offered at a particular site, and makes the public generally conscious of local archaeological resources and archaeological research. In order to generate the maximum amount of public interest and support for a public archaeology programme, more government participation in advertising is essential. This participation would fit the mandate of certain ministries. These programmes deserve special government "high-profile" advertising.

These public archaeological programmes, by offering a range of educational opportunities both appealing and beneficial to the public, have demonstrated the validity of public archaeology as a tool which can deepen the general understanding and awareness of archaeological resources. Public response, without exception, has been positive.

Recommendation 7
In light of the preceding, it is recommended that the City encourage site specific interpretation as a means of educating the public on the rich pre-contact and post-contact history of the City, enhancing awareness and understanding of archaeology and exhibiting the specific heritage significance of a site.

4.13 Archaeological Collections from Sites in the City of Toronto: Management and Curation

There is a need to co-ordinate the disposition of artifacts recovered from archaeological sites within the City. As discussed in Section 4.5, it may be preferable that material from a particular archaeological site is ultimately deposited in a public institution located in the same community, provided that: adequate storage and curatorial facilities for both artifacts and field records are available; that the institution's collections are accessible to researchers; and that the material is not transferred or disposed of without provincial approval.

While the existing museum facilities within the City may already have collections of material, or may be willing to accept additional material, many artifacts from sites in Toronto are currently curated elsewhere. Collections derived from the activities of private licensed archaeological consulting firms, for the most part, remain in the care of those firms.

Should the Culture Division deem it desirable to seek to establish a guideline encouraging the curation of material from archaeological sites within the City at local museums (existing or proposed), researchers active in the area could be made aware of this interest. It would first be necessary, however, to ensure that such institutions possess adequate storage and curatorial facilities, and collection management policies.

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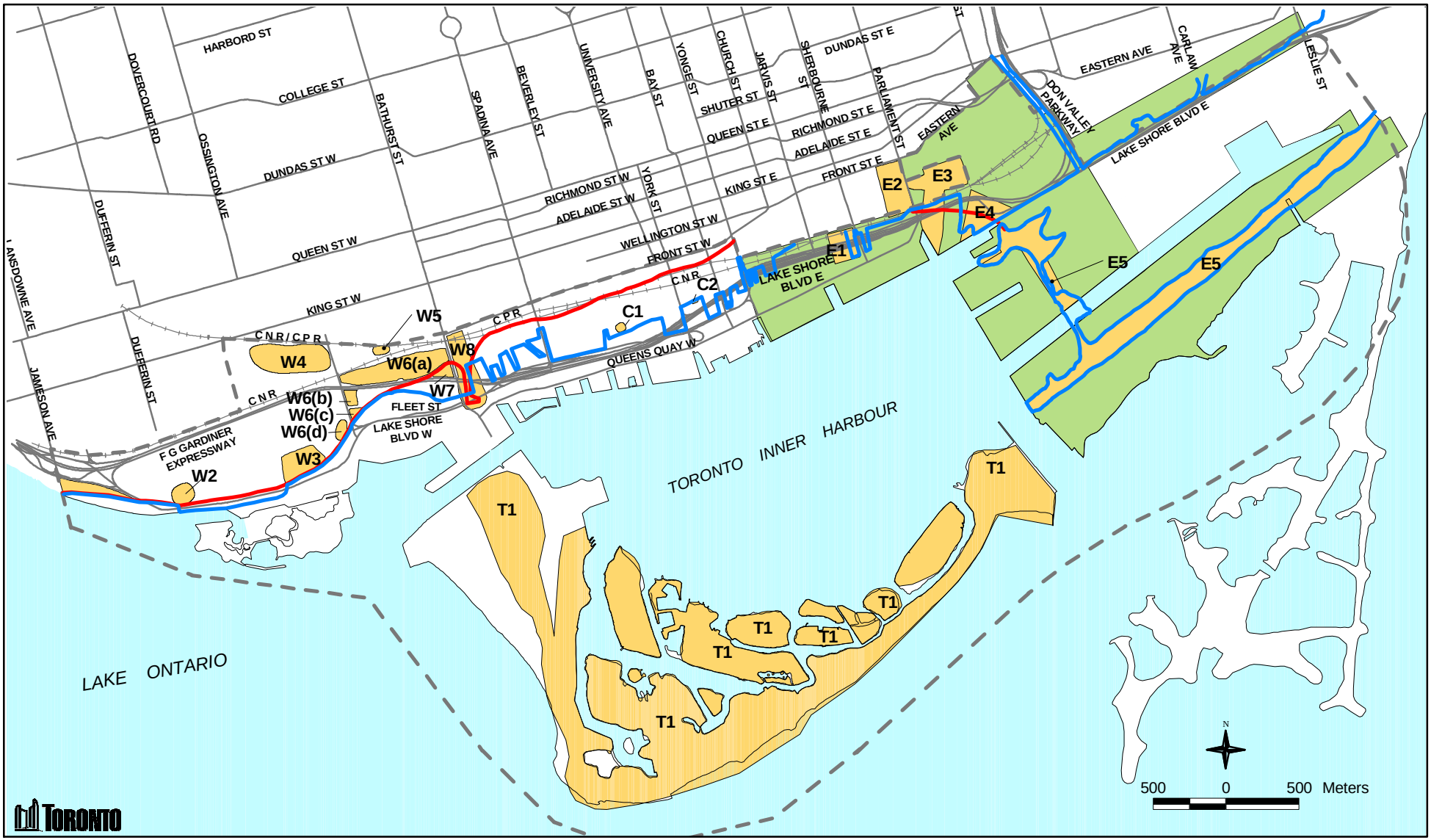

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Level 1 Archaeological Potential Zone
Level 2 ArchaeologicalPotential Zone
T1 Site Number
Study Area
1912 Shoreline
1820 Shoreline

CENTRAL WATERFRONT ARCHAEOLOGICAL MASTER PLAN