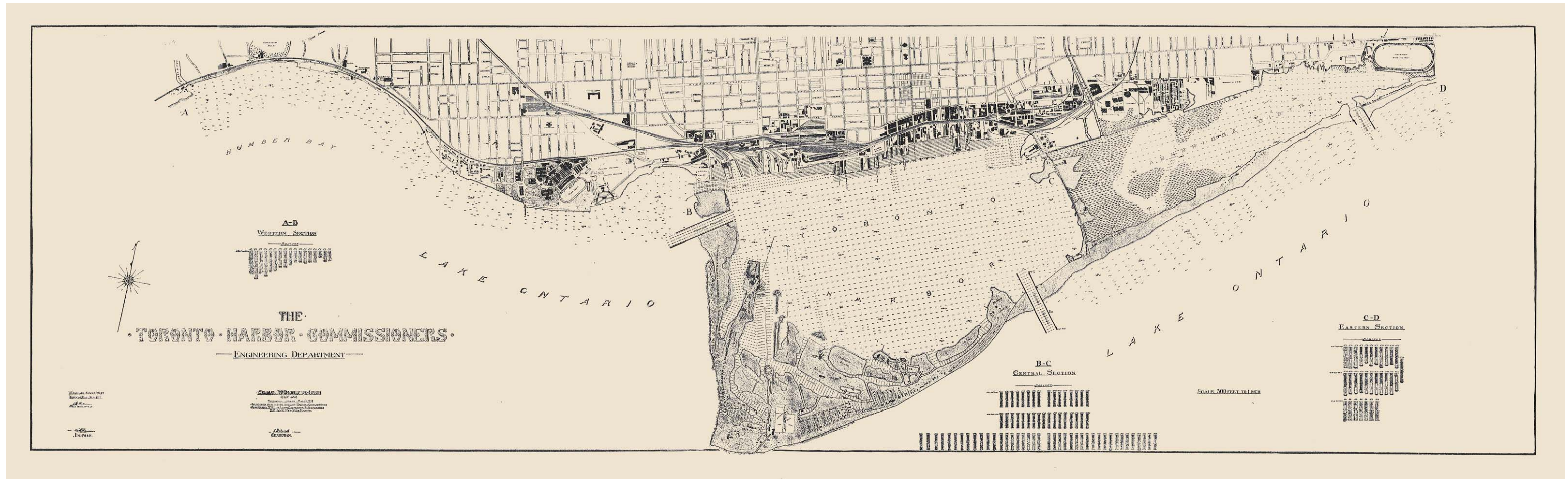


WATERFRONT TORONTO

ARCHAEOLOGICAL CONSERVATION AND MANAGEMENT STRATEGY



Archaeological Conservation and Management Strategy

Prepared for
WATERFRONT TORONTO

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1 The Waterfront Toronto Archaeological Conservation and Management Strategy

1.1 Introduction

The archaeological resources of Toronto are constantly threatened by the ongoing success of the City. By necessity, the city continually rebuilds upon itself as part of the cycle of regeneration, revitalization and growth.

Cities are the most complex of archaeological artifacts because they are products of prolonged and dynamic human occupation. Vitality is a defining characteristic of urban areas: this constant growth and change is the reason for the complicated multi-layered archaeology found in historic cities.

Toronto’s waterfront has been a significant site of settlement, transportation and industrial activity. Over the last two centuries, development and other landscape interventions have transformed the shoreline and the surviving heritage fabric tells many important stories about the city’s history. Conserving and managing the cultural heritage features and landscapes that make up this fabric has become especially important, where change brought about by redevelopment has been occurring at an ever increasing rate, resulting in extensive losses of non-renewable heritage resources.

1.2 Context for the Study

In January 2006, the City of Toronto’s Planning Division implemented an interim screening process for archaeological resources as part of the City of Toronto Archaeological Master Plan project, which is scheduled for completion in 2008. The interim screening process, applied on a city-wide basis, identifies properties that exhibit archaeological potential and which require archaeological assessment prior to any new development-related land disturbances. The basis for the requirement for such assessments lies in existing Planning and Environmental Assessment Act controls, as well as the City’s Official Plan and related by-laws.

To further the work of the Archaeological Master Plan, Waterfront Toronto (formerly known as the Toronto Waterfront Revitalization Corporation) and the City of Toronto recognized the need to develop policies and protocols to manage the archaeological resources of the waterfront, in advance of the major construction required for its revitalization, for the long term benefit of the inhabitants of the City.

1.3 Objectives of the Study

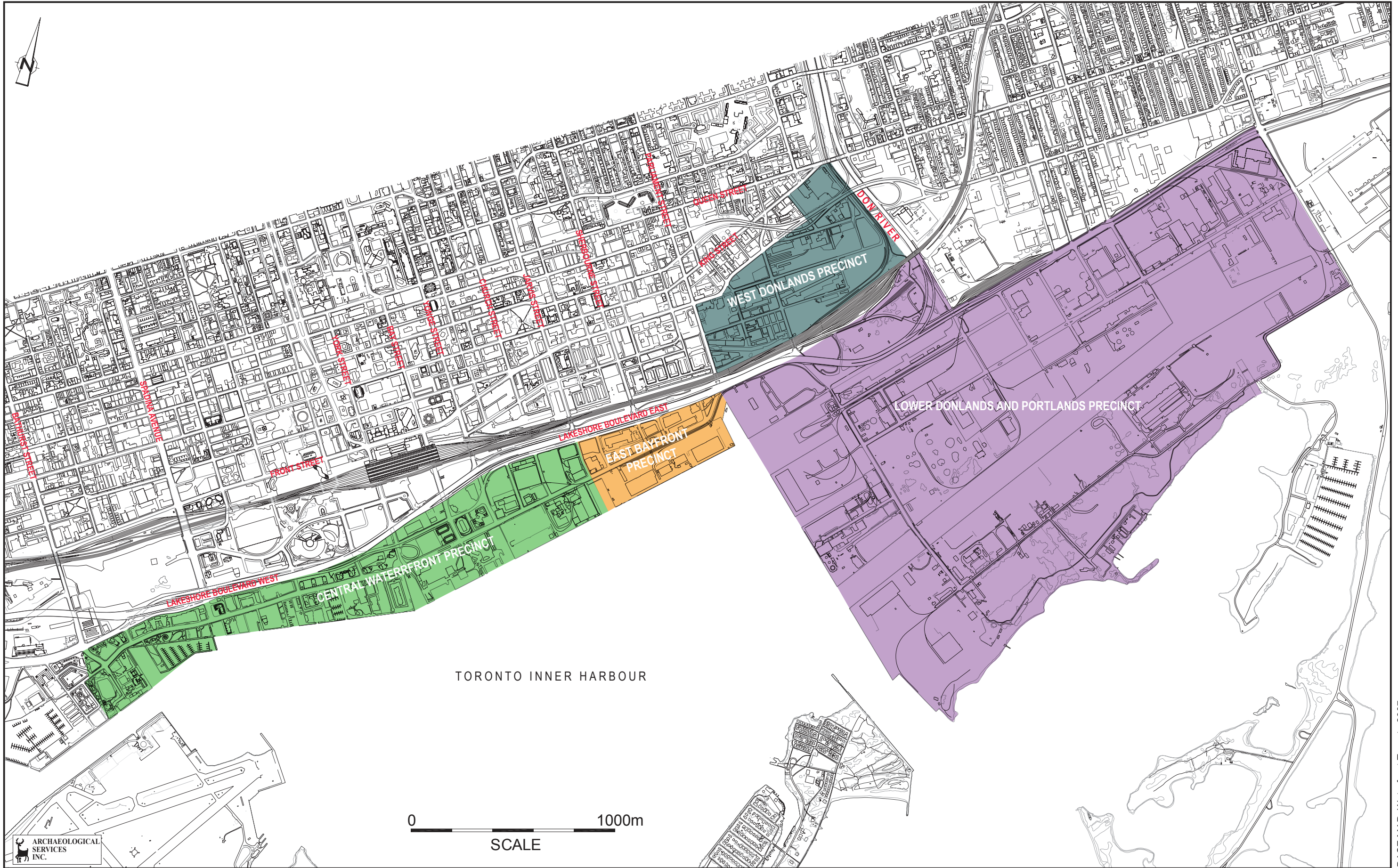
The objectives of the study are

- To develop a Archaeological Conservation and Management Strategy to better inform the planning and development review process and to address issues pertaining to the preservation and documentation of archaeological resources discovered during the waterfront revitalization process;
- To develop a framework for the evaluation of significant archaeological resources within the urban waterfront landscape;
- To identify opportunities, constraints, and best practices for the preservation, interpretation, commemoration and exhibition of these archaeological resources and features within a holistic archaeological planning framework; and
- To explore opportunities for bringing new archaeological interpretive concepts to an area undergoing urban revitalization.

This work focuses on those portions of the waterfront between Bathurst Street and the Don River, from Lakeshore Boulevard south to the water’s edge. These lands comprise the Central Waterfront, East Bayfront and Lower Don Lands precincts. The study area also includes the West Don Lands precinct, which extends as far north as Queen Street, and the Port Lands precinct, which stretches as far east as Leslie Street, south of Lakeshore Boulevard East.

The specific tasks undertaken to meet these objectives included: a review of the legislative context in which archaeological studies are undertaken within the revitalization process (Section 2); discussion of the archaeological assessment process itself and the planning environment in which these assessments take place (Section 3); post-assessment artifact and feature conservation issues (Section 4); presentation of a general overview of the development history of the waterfront (Sections 5 and 6); the compilation of an archaeological inventory for the study area, developed on the basis of material available from previous archaeological studies, supplemented as necessary by additional research and map compilation (Section 7); evaluation of the each of the features identified within the inventory (Section 8); the development of a cultural heritage interpretive plan, based on analysis of the specific character and context of the Toronto waterfront and on examination of comparable initiatives or undertakings elsewhere (Section 9); and

identifying a series of recommendations for short- and long-term management of the physical archaeological records and opportunities for their interpretation and commemoration (Section 10).



THE WATERFRONT TORONTO ARCHAEOLOGICAL CONSERVATION AND MANAGEMENT PLAN STUDY AREAS

2 Archaeological Resource Management: The Legislative Context

2.1 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 (2005) and its Policy Statement, the provincial guidelines developed as part of the Ontario Environmental Assessment Act (1997), and the recently revised Ontario Heritage Act (2005).

The 2005 Planning Act Policy Statement, for instance, defines archaeological resources (Section 6.0, Definitions) as including “artifacts, archaeological sites and marine archaeological sites.” Individual archaeological sites (that collectively form the archaeological resource-base) are distributed in a variety of locational 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.

2.2 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). Under the Ontario Heritage Act, a process is defined that ensures that “once a property is designated of archaeological or historical significance and is likely to be adversely affected by commercial, industrial, agricultural, residential, or other development,” the appropriate measures are taken. In order to maintain a professional standard of archaeological research and consultation, the Minister is responsible for issuing licenses 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 license are reviewed by Ministry staff to ensure that the activities conducted under a license meet current technical guidelines, resource conservation standards, and the regulations of the Heritage Act. The regulation of archaeological activities carried out within the development context requires that all approval authorities must integrate the requirements of the Heritage Act within their land use planning process.

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.

2.3 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 principle pieces of legislation are the Planning Act (2005) and the Environmental Assessment Act (1997). Despite the on-going provincial transfer of review responsibilities, hundreds of formal development applications throughout the province, under both Environmental Assessment and Planning Act processes, are reviewed annually by the Ministry of Culture. Consequently, approximately 500 to 800 archaeological sites have been documented annually in southern Ontario since 1990 as a result of planning mechanisms.

The Planning Act

With respect to archaeological resources, the most recent Provincial Policy Statement, which came into effect March 1, 2005, states that:

Development and site alteration shall only be permitted on lands containing archaeological resources or areas of archaeological potential if the significant

archaeological resources have been conserved by removal¹ and documentation, or by preservation on site. Where significant archaeological resources must be preserved on site, only development and site alteration which maintain the heritage integrity of the site will be permitted (Section 2.6, Cultural Heritage and Archaeology).

For the above policy statement, significant archaeological resources are defined as those “that are valued for the important contribution they make to our understanding of the history of a place, an event, or a people.” The identification and evaluation of such resources are based upon archaeological fieldwork undertaken in accordance with the Ontario Heritage Act.

Provincial interests in land use planning are also detailed in the Provincial Policy Statement provided in Section 3(1) of the Act, as amended by the Strong Communities Act (2004), whereby:

a decision of 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, in respect of the exercise of any authority that affects a planning matter, “**shall be consistent**” with this policy statement.

Thus all decisions made during the development process, regardless of the identity of the development proponent or the relevant approval agency, must address potential heritage resource impacts. Given the provincial interest, any planning activity referred to in the Act, including the preparation of Official Plans or any planning application, must be consistent with matters of provincial interest. The statements in the Act are sufficient for a municipality to require that an archaeological assessment be completed prior to the approval of a planning application.

It should be noted that an archaeological assessment must now be completed and submitted with an application for approval of a plan of subdivision. Section 51 (17) of the Planning Act, Part VI Subdivision of Land, now delineates under Schedule 1 the information and material to be provided by an applicant for approval of a plan

¹ “Removal” of an archaeological resource is accomplished through mitigative documentation and/or excavation.

of subdivision (O. Reg. 544/06, s. 2). This section states the applicant shall provide the approval authority with the following prescribed information and material:

- 23. Whether the subject land contains any areas of archaeological potential.
- 24. If the plan would permit development on land that contains known archaeological resources or areas of archaeological potential,
 - (a) an archaeological assessment prepared by a person who holds a license that is effective with respect to the subject land, issued under Part VI (Conservation of Resources of Archaeological Value) of the *Ontario Heritage Act*; and
 - (b) a conservation plan for any archaeological resources identified in the assessment.

Note that the PPS defines “archaeological resources” as “includes artifacts, archaeological sites and marine archaeological sites”.

The PPS also indicates that a conservation plan should entail the identification, protection, use and/or management of cultural heritage and archaeological resources in such a way that their heritage values, attributes and integrity are retained.

The Act also 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. Agreements can be entered into regarding the site plan matters approved and the agreement can include a requirement for an archaeological assessment.

In regard to municipal projects, the Planning Act states that where there is an Official Plan in effect, no public work shall be undertaken that does not conform to the Plan.

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”.

In summary, a municipality is obligated, within the existing legislative framework, to require archaeological concerns be addressed in connection with any planning application and is able to 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 Official Plan Amendments, Zoning By-law Amendments, Plans of Subdivision, Site Plan Control and Consent and/or Minor Variance 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 Approval Authority 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 within any particular subject plan, is now being made directly by the City of Toronto through the use of their archaeological master plan, consisting of potential mapping, explanatory text, and ongoing 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 (1997) 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 man or a community” [Section 1(c) (iii)] and “any building, structure ... made by man” [Section 1(c) (iv)]. Thus, environment is broadly interpreted to include heritage artifacts, structures or events.

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.

The Ontario Heritage Act

The Ministry of Culture² is charged under Section 2 of the Ontario Heritage Act with the responsibility to “determine policies, priorities and programs for the conservation, protection and preservation of the heritage of Ontario” and so fills the lead provincial government role in terms of direct conservation and protection of cultural resources. 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 (Cumming 1985). These goals are generally accomplished through other legislated processes, such as those required by the Planning and Environmental Assessment Acts, rather than directly through the Ontario Heritage Act itself.

The Ontario Heritage Act does, however, govern the general practice of archaeology in the province. In order to maintain a professional standard of archaeological research and consultation, the Minister is responsible for issuing licenses to qualified individuals. In changes to the Heritage Act, first outlined in the Government Efficiency Act (2002), it became illegal for any person or agency to *knowingly* alter an archaeological site³ without a license. This in effect offers automatic protection to all archaeological sites and the City should exercise due diligence in all planning contexts to ensure that archaeological features are protected from disturbance of any nature. An individual found in violation of the

² Provincial management of cultural resources has been carried out by operations units attached variously to the Ministry of Citizenship, Culture and Recreation (1993-1998), the Ministry of Tourism, Culture and Recreation (1998-2002) and the Ministry of Culture (2002-present).

³ The term “alteration” covers unsanctioned disturbance or destruction of archaeological resources brought about by any means (i.e., either archaeological excavation, site looting, or development). More generally, it should be noted that in recent changes to the Heritage Act (Bill 179, 2002), it is now an offence to knowingly alter an archaeological site without a license. The Act defines an archaeological site as “any property that contains an artifact or any other physical evidence of past human use that is of cultural heritage value or interest.”

Act or the regulations is liable to a fine of up to \$50,000 or imprisonment for up to one year or both. A director or officer of a corporation found in violation of the Act or the regulations is liable to a fine of up to \$1,000,000.

All reports submitted to the Ministry, as a condition of an archaeological license are reviewed by Ministry staff to ensure that the activities conducted under a license meet current technical guidelines, resource conservation standards, and the regulations of the Heritage Act. The regulation of archaeological activities carried out within the development context requires that all approval authorities must integrate the requirements of the Heritage Act within their land use planning process.

2.4 The City of Toronto Official Plan

As required by the Planning Act, the City of Toronto’s Official Plan explicitly addresses archaeological resource concerns. Section 3.1.5 of the Plan, which considers Heritage Resources, states:

Our heritage buildings, districts and landscapes create a unique sense of place and a rooted sense of local identity and continuity for Torontonians. Heritage conservation is also a wise investment for a municipality.... In the past many of our architectural gems and historical landmarks were lost. The Plan focuses on conserving Toronto’s remaining irreplaceable heritage resources, including our heritage landscapes, historic cemeteries and buried archaeological sites.

Policy 3.1.5.10 specifically addresses the management of archaeological resources within the development context:

10.a) An archaeological Master Plan will inventory known archaeological sites, establish procedures for their protection and interpretation, and identify areas of archaeological potential [the master plan is currently in progress].

10.b) If development occurs on archaeological sites, or areas with archaeological potential, significant archaeological deposits should be conserved by on-site preservation. Where on-site preservation is not ultimately secured, scientific investigation and documentation will still be undertaken. Where archaeological

features are preserved on-site, any development or site alteration will maintain the heritage integrity of the site.

10.c) All indigenous person’s cultural sites, including burial sites, have importance. Indigenous cultural remains should be identified, recorded, protected and preserved. On properties where indigenous settlement sites have been previously destroyed and contemporary structures have been built, these indigenous settlement sites should be commemorated.

Section 10.b is supplemented by the statement that:

Until an Archaeological Master Plan is adopted, a development application on or adjacent to sites with known archaeological value or archaeological potential, will require an accompanying report evaluating the impact of the development on archaeological resources. If a potential impact on an archaeological resource exists, a licensed archaeologist will be engaged to assess the site and suggest means of mitigating any impacts prior to any ground or soil disturbances.

Policy 3.1.5.11 also provides a statement concerning commemoration that implicitly includes archaeological resources, in that it states:

Lost historical sites should be commemorated whenever a new private development or public work is undertaken in the vicinity, including sites where: (a) major events occurred; (b) landscape features, such as rivers, streams and shorelines, have disappeared from the cityscape; and (c) important institutions, residences, industries, landmark buildings or settlements once existed.

The Province is not explicitly subject to Toronto Official Plan policies on provincially-owned lands within the City of Toronto. While they are not required to get building permits or pay property taxes, they are expected to take into account their own provincial planning policies. Should a municipality’s Official Plan conform to provincial planning directives, the province should adhere to the Municipal policies.

2.5 Federal Legislation

The major federal statutes applicable to archaeology include the *Canadian Environmental Assessment Act* and the *Cultural Property Export and Import Act*. There is no federal legislation which specifically governs archaeological research and planning. In cases where archaeological issues on federal lands do not fall into the category of exports or the confines of an environmental impact assessment, federal land managers are expected to rely on federal policies applicable to all departments or to the specific directives of their own departments.

In terms of the protection of archaeological resources, the federal government’s role would be confined primarily to land that it owns, such as national historic sites and parks, lands belonging to federal departments, such as National Defence or Agriculture, lands where there is a federally regulated undertaking, such as railways or airports, and lands where a federally regulated development project is proposed. Federal lands are not subject to the Ontario Planning Act and Toronto Official Plan requirements.

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.

Several federal departments have specific rules to protect archaeological heritage, such as the Department of National Defence and the Parks Canada Agency.

Canadian Environmental Assessment Act

The Federal Archaeology Office is also recognized as an “expert department” for matters involving implementation of specific legislation in the Canadian Environmental Assessment Act (CEAA), 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 for traditional purposes by aboriginal persons, or any structure site or thing that is of historical, archaeological, paleontological or architectural significance (Section 2(1)).

The *Reference Guide on Physical and Cultural Heritage Resources* (1996:2) for the CEAA goes on to describe a cultural heritage resource as:

...a human work or a place that gives evidence of human activity or has spiritual or cultural meaning, and that has historic value... This interpretation of cultural resources can be applied to a wide range of resources, including cultural landscapes and landscapes features, archaeological sites, structures, engineering works, artifacts and associated records.

Legally, a project that would prompt an environmental assessment under the Canadian Environmental Assessment Act also triggers a requirement to research archaeology.

Cultural Property Export and Import Act

The regulations under the federal Cultural Property Export and Import Act offer a specific list of objects or artifacts that are protected under the Canadian Cultural Property Export Control List. The list incorporates:

archaeological object[s] of any value recovered from the soil of Canada, the territorial sea of Canada or the inland or other international waters of Canada not less than 75 years after its burial, concealment or abandonment if the object is an artifact or organic remains, including human remains, associated with or representative of historic cultures.

The document then goes on to list specific artifacts relating to the “Aboriginal peoples of Canada” (2a), to the “progressive exploration, occupation, defence and development of the territory that is now Canada by non-aboriginal peoples” (2b)

and “organic remains associated with or representative of historic or prehistoric cultures” (2c).

Parks Canada

Part of the mandate of Parks Canada, as per the Parks Canada Charter, is to “protect and present nationally significant natural and cultural heritage...” Not only is the Archaeological Services Branch of the Parks Canada Agency responsible for all issues pertaining to archaeology on Parks Canada lands, it also has an advisory role, upon request, to other federal departments. The Agency has developed a number of policies and guidelines, as well as directives, bulletins and manuals, concerning the preservation of cultural heritage.

Other Federal Legislation

Under the *Canada Shipping Act* (CSA, 1985), all material recovered from a wreck (ships and aircraft) during any activity, such as fishing, diving, or during an archaeological excavation, must be reported to the district Receiver of Wreck, an officer of Transport Canada. The Canada Shipping Act (2001) provides for the regulation of wrecks that, on the recommendation of Parks Canada, have heritage value.

2.6 International Treaties and Charters

Canada supports and/or adheres to a number of treaties which impose a duty on the governments of Canada, its provinces and territories, to take action for archaeological management.

Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property

Promoted by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in 1970 and formally acceded by Canada in 1978, this Convention declares that “cultural property acquired by archaeological, ethnological or national science missions” is recognized as belonging “to the cultural heritage of each State” (article 4). To ensure the protection of their cultural property, under article 5, participating countries are obliged to (among other obligations):

- contribute to the formation of draft laws and regulations designed to secure the protection of the cultural heritage...

- establish and keep up to date, on the basis of a national inventory of protected property, a list of important public and private cultural property...
- promote the development or the establishment of scientific and technical institutions (museums, libraries, archives, laboratories, workshops...)...
- organize the supervision of archaeological excavations, ensuring the preservation “in situ” of certain cultural property, and protecting certain areas reserved for future archaeological research...

Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention)

Under article 1 of this Convention, which Canada formally adhered to in 1976, “cultural heritage” may consists of “sites – works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view.” To ensure the protection of their cultural property, under article 5 participating countries are obliged to (among other obligations):

- adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and integrate the protection of that heritage into comprehensive planning programs...
- develop scientific and technical studies and research to work out such operating methods as will make the State capable of counteracting the dangers that threaten its cultural or natural heritage
- to take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage...

Convention on the Protection of the Underwater Cultural Heritage

This convention, which was adopted by UNESCO in 2001, requires participating countries to adopt necessary measures to preserve their underwater cultural heritage. Canada has not yet made a decision concerning ratification.

Professionals in Canada are also guided by principles set by international organizations such as the International Council on Monuments and Sites (ICOMOS). Four Charters in particular provide guidance on archaeological resources management:

- *Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter)*, describes the principles of appropriate conservation;
- *Charter on the Conservation of Places of Cultural Significance (Burra Charter)*, outlines the principles and practices of conservation based on the cultural significance of historic places;
- *Charter for the Protection and Management of the Archaeological Heritage (Lausanne Charter)*, reflects basic principles and guidelines relating to the management of archaeological resources and is a reference for policies and practice;
- *Charter for the Protection and Management of the Underwater Cultural Heritage*, outlines the principles for the appropriate protection and management of cultural sites underwater.

First Nations Role in the Identification and Protection of Their Cultural Heritage

A series of recent events related to First Nations concerns with the prevailing development process in southern Ontario, have important implications for this study. Most notable among these are the ongoing controversies over a proposed residential development within the Town of Caledonia and the status of Six Nations claims regarding past treaty processes and land disposition within the Haldimand Tract, as well as the Ipperwash Inquiry Report. In York and Durham regions, however, there have also been a number of Environmental Assessment Act related projects that have highlighted the need to engage Aboriginal communities.

The sources of the tensions that have arisen with regard to these projects are longstanding and complex and continue to be debated in the Federal and Provincial courts. In 2004, for instance, the Supreme Court of Canada released its decisions in the Haida Nation v. B.C. and Weyerhaeuser and Taku River Tlingit First Nation v. B.C. cases. These rulings have set out more clearly than ever the scope and extent of the Crown’s duty to consult and, where appropriate, accommodate First Nations prior to development of Crown Lands. These rulings, which are applicable across Canada, noted that third parties, who include local governments, do not owe a duty to consult or accommodate First Nations peoples, as these duties rest solely with the Crown (Federal and Provincial governments). There has not yet been any decision as to whether local governments, as regulators exercising delegated Provincial powers, may also assume any portion of the Province’s duty to consult. This must await future decisions, however, with the current trend towards “downloading” responsibilities from upper levels of government, municipalities will have a duty to enquire whether there has been adequate consultation.

Likewise, there is, as yet, no decision concerning municipally-owned or privately-owned lands. Nevertheless, it is clear that local governments should exercise caution in making any decision that could impact an affirmed or asserted Aboriginal interest. The ACMS study area falls within a specific land claim filed by the Mississaugas of the New Credit First Nation and is within the treaty rights area of the Kawartha Nishnawbe First Nation. There are also significant cultural heritage resources of both the Huron-Wendat and Six Nations within the City of Toronto.

3 The Archaeological Assessment Process in the ACMS Area

3.1 Archaeological Assessments in Urban Settings

Archaeological studies are a common component of the Planning and Environmental Assessment processes. This type of archaeological research is known as an “archaeological assessment” and there are four major levels of work, each of which is increasingly detailed and builds upon the findings of the previous step. At a minimum, any stage of the archaeological assessment process must meet the standards defined by the Ministry of Culture’s 1993 *Stage 1–3 Archaeological Assessment Technical Guidelines*. It is preferable, however, to ensure that such work conforms to the more detailed and stringent requirements of the Ministry’s 2006 Draft *Standards and Guidelines for Consultant Archaeologists*. The following discussion of the practical aspects of the assessment process follows the steps outlined by the Ontario Ministry of Culture in their various guideline documents and technical manuals (MCL 1993, 1997, 2006a), although greater emphasis is placed on the unique requirements of archaeological resource management in the urban context than is seen in most of those documents.

A *Stage 1 Archaeological Assessment* (or *Evaluation of Archaeological Potential*) consists of background research concerning previously discovered sites in or near a given study area, as well as the environmental character of the land and its history in order to predict whether additional archaeological sites may exist. In an urban setting characterized by a long sequence of development, it is essential to develop a detailed understanding of the land use history of the study area in order to identify the character and location of potentially significant archaeological resources and to predict the degree to which they are likely to have survived later development events on the property. Such studies typically involve extensive archival and cartographic research.

A *Stage 2 Archaeological Assessment* (or *Property Assessment*) consists of field investigations to locate any known or potential archaeological resources that were identified during the course of the Stage 1 research, as well as any other potentially significant remains that may be present.

A *Stage 3 Archaeological Assessment* (or *Site-Specific Assessment*) represents test excavations conducted on any site that has been found and which is likely to be of high heritage value, wherein further investigations may potentially provide

significant insights into the past and the lives of the people who formerly occupied that place. Stage 3 investigations are designed to secure a detailed understanding of the nature and extent of a site and involve a systematic collection of artifacts found during the test excavations.

In some urban contexts where land use has been *comparatively* passive, such as parks established in the nineteenth century, or isolated parcels that have undergone minimal development in the past, it is possible that these investigations may make use of a test pit survey. Typical test pits are approximately 30-50 centimetres in width and are shovel excavated by hand to subsoil and are excavated in a five metre grid pattern. The soils from the test pits are screened through six-millimetre mesh in order to recover any artifacts that may be present. This form of survey is one of the principle methods of the Stage 2 Assessment process.

More often, however, the original ground surfaces of urban sites and the historic features being sought are deeply buried, requiring the use of alternative assessment techniques such as augering or heavy machinery excavation. An auger may be used in situations where there is a general presumption of archaeological potential, but no specific “target.” Augering should be carried out at five to ten metre intervals. This type of work is essentially a Stage 2 level undertaking and should not be confused with geotechnical borehole investigations⁴.

Use of heavy machinery, such as a backhoe, to excavate larger test units or trenches should be confined to a situation where the Stage 1 research has reconstructed the locations of former features of interest, vestiges of which may survived. Backhoe excavations should be structured as appropriate to intersect potential archaeological deposits or features. By their nature, backhoe test excavations are more akin to Stage 3 in the generic assessment process and should be treated as such in terms of thoroughness of approach⁵.

⁴ Data obtained from geotechnical studies rarely may serve as a substitute for archaeological investigations, since they usually are too coarse to permit interpretation of archaeological stratigraphy.

⁵ It should be noted that the 2006 MCL *Standards and Guidelines for Consultant Archaeologists* do not recognize this reality, as it is stated that “it is not possible to go straight from Stage 2 to Stage 4” (MCL 2006:10). A “Stage 2” assessment involving test trench

In all cases of a Stage 2 or Stage 3 assessment, detailed recording of site stratigraphy (including recent fills, grading events, etc.) is necessary.

It should also be noted that remote sensing techniques are permissible, however, many waterfront sites have long histories of use (filling, industrial operations, etc.) that will limit the resolution of such techniques. Moreover, any results must be “ground-truthed” through test excavations.

A *Stage 4 Archaeological Assessment* (or *Mitigation of Development Impacts*) represents the design and implementation of mitigation strategies to minimize or offset the negative effects of any proposed development activity to an archaeological resource of high heritage value. Stage 4 strategies may consist of planning and design measures to avoid the site, archaeological monitoring during construction, or extensive archaeological excavation and recording of the finds in the field, or some combination of these approaches. Archaeological monitoring and excavation work on site is followed by comparative analyses of the archaeological data that have been recovered (“salvaged”) and the interpretation of those data. The identification of the most appropriate form of Stage 4 mitigation requires close consultation between the consulting archaeologist, the development proponent and their agents and contractors and the planning approvals and regulatory authorities.

excavation that results in the discovery of significant deposits seemingly cannot be followed by full scale Stage 4 mitigation, leading to the question of just what constitutes Stage 3 under these circumstances. Likewise, presumably, it is not possible for a Stage 1 assessment to be followed directly by “Stage 3” work. While seemingly a trivial matter of nomenclature, this situation does have implications with respect to the Ministry of Culture review process and timely clearances of archaeological concerns following completion of the necessary mitigations.

ARCHAEOLOGICAL MONITORING

In general, the purpose of monitoring is to document any significant features that exhibit notable design or construction attributes, with a heavy reliance on photography and the preparation of measured drawings. This work is most often undertaken during the construction excavation sequence, rather than through archaeological excavation as such (although the monitoring archaeologist may provide some direction in this regard). Small-scale artifact recovery is generally at the discretion of the monitoring archaeologist, with the understanding that unique items of material culture that have clear interpretive value should be collected. Recovery of a representative sample of domestic refuse artifacts from generic lakefill deposits may be undertaken if the monitoring archaeologist has entered into an agreement concerning their curation and interpretation with either the development proponent or a public agency.

3.2 Implementing the Assessment Process

As discussed in Section 2 (Legislative Context), the role of municipalities in the management of archaeological resources 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). The most effective means by which to reduce the negative impacts of such developments on archaeological resources is, therefore, through the planning process at the municipal level.

The archaeological review procedure developed as part of the larger City of Toronto Archaeological Master Plan is the means by which the City is addressing this responsibility, as the City is the approval authority for Official Plan Amendments, Plans of Subdivision or Condominium, Rezoning Applications, Zoning Bylaw Amendments, Site Plan Control applications and Committee of Adjustment consent and minor variance applications. It also issues building permits for certain small-scale alterations to properties.

This archaeological process requires close co-operation between Heritage Preservation Services section of the City Planning Division, the staff of the Heritage Operations Unit of the Ministry of Culture, as well as the development

sector (whether private or public) and the archaeological community. The city recognizes that both large and small scale Planning Act development applications should have regard for Provincial Policy 2.5.2 under the Planning Act.

In the case of all large-scale land-use alterations (Plans of Subdivision and Condominium, site specific Official Plan Amendments, Site Plans involving large parcels of land as well as regional and municipal development/infrastructure projects), which may impact Grade 2 resources as inventoried in this study, notifying the proponent of the need for an archaeological assessment is best undertaken as part of a pre-consultation process between the development proponent and the City, prior to the submission of the application. If an assessment is required, the report can be submitted with the development application. This is required in the Planning Act in the case of plans of subdivision although this requirement should be coordinated with the City since it has already undertaken an archaeological master plan as well as this study. Any discussion of the need for an archaeological assessment can only occur if the proponent presents clear property location data, existing site conditions and a draft site plan.

Addressing the archaeology at this early stage in the planning process minimizes delays and provides an opportunity to tie the review of applications directly to a predetermination of archaeological concerns associated with a property, and even provides the opportunity to ensure that any outstanding heritage concerns are identified or resolved well in advance of submission of the 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.

Should a development proponent choose not to complete a required archaeological resource assessment or any subsequent mitigation that may be required during the pre-consultation phase, then a condition of plan approval, requiring completion of an archaeological resource assessment, is applied to the application.

In the case of smaller-scale applications (consent applications) for which it is determined that archaeological concerns exist, the assessment may be completed as a condition of development approval, although pre-consultation in such cases is also advantageous to all parties.

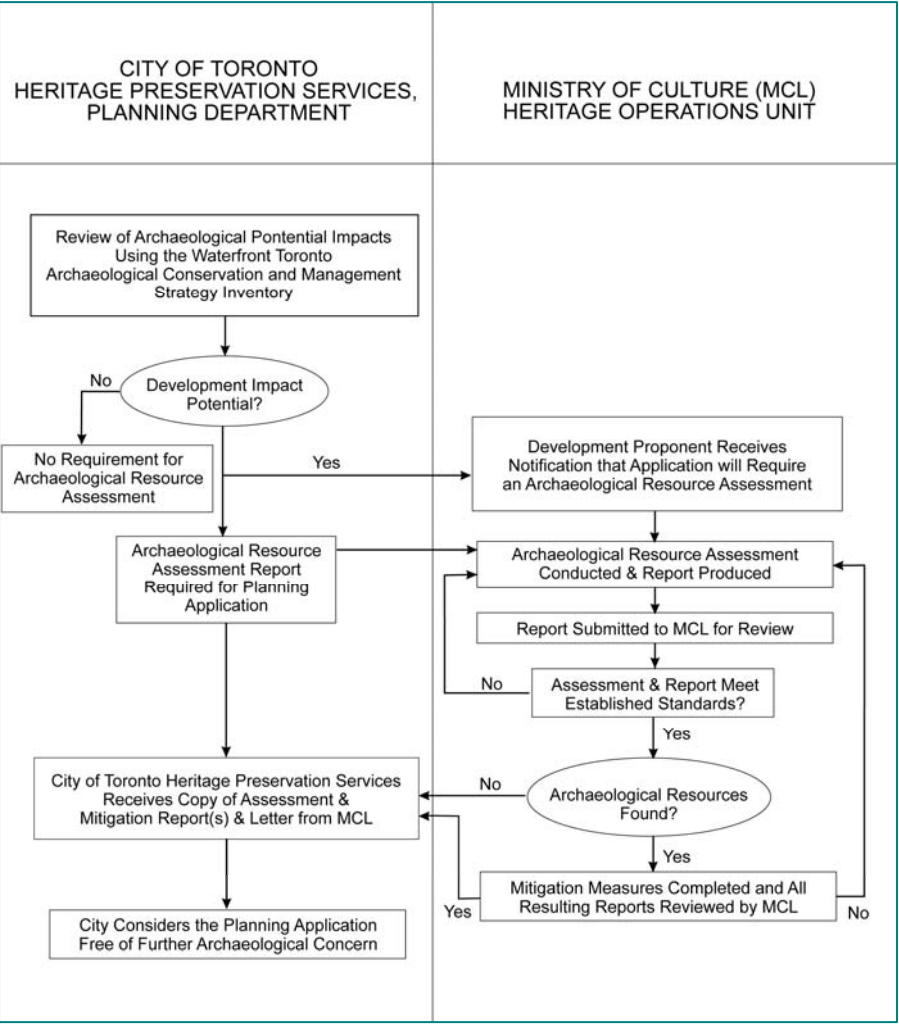
These procedures address the concerns raised by the Ontario Planning Act and the related components of both the Ontario and Canadian Environmental Assessment Acts. In the case of the discovery of significant archaeological resources that are subsequently excavated and/or conserved, the City may require plans for their long-term conservation and interpretation to be developed prior to the issuance of final approvals.

These archaeological procedures should also apply to municipal development and/or infrastructure projects that might disturb soils in areas of Grade 2 archaeological features. 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.

The accompanying flow chart outlines the basic procedure recommended for use in the development review process for certain planning applications within the ACMS Waterfront Zone.

The general sequence of actions is as follows:

1. As part of the consultation process, Heritage Preservation Services staff determine if an archaeological assessment is required for a proposed application by means of review of the ACMS study or other relevant documentation. Should any inventoried resource fall within any portion of the property, the City requires that the proponent undertake an archaeological assessment as a condition of development approval. Preferably, the assessment should be completed and submitted as part of the application. The applicant will be provided with a copy of the notice from Heritage Preservation Services that an archaeological assessment will be required.
2. The development applicant must retain a licensed archaeologist to conduct a Stage 1 or Stage 1-2 archaeological assessment of the subject property. For projects on the waterfront that have the potential to impact inventoried resources, it is likely that the initial requirement will be restricted to a Stage 1 study, although depending on the existing conditions at the property and its overall character, a combined Stage 1-2 assessment may be required from the outset.



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 up-to-date Archaeological Assessment Technical Guidelines authorized by the Ministry of Culture. Currently the City specifies that the work must be completed in accordance with the 2006 Draft *Standards and Guidelines for Consultant Archaeologists*. As noted previously, these guidelines do not fully reflect the unique realities of urban, waterfront and industrial archaeology in terms of research and excavation requirements or methodologies.

THE CURRENT CITY OF TORONTO CONDITION FOR URBAN PROPERTIES

The applicant shall retain a consultant archaeologist, licensed by the Ministry of Culture under the provisions of the Ontario Heritage Act (RSO 1990 as amended) to carry out a Stage 1 archaeological assessment of the entire development property and follow through on recommendations to mitigate, through preservation or resource removal and documentation, adverse impacts to any significant archaeological resources found. The assessment is to be completed in accordance with the Final Draft—Standards and Guidelines for Consulting Archaeologists, September 2006, Ministry of Culture.

Should the archaeological assessment process continue beyond a Stage 1 assessment, any recommendations for Stages 2-4 mitigation strategies must be reviewed and approved by Heritage Preservation Services prior to commencement of site mitigation.

Prior to ... approval [of the relevant application type], the consultant archaeologist shall submit a copy of the relevant assessment report(s) to the Heritage Preservation Services Unit in both hard copy format and as an Acrobat PDF file on compact disk.

No demolition, construction, grading or other soil disturbances shall take place on the subject property prior to the City's Planning Division (Heritage Preservation Services Unit) and the Ministry of Culture (Heritage Operations Unit) confirming that all archaeological licensing and technical review requirements have been satisfied.

- Once the archaeological assessment has been completed, the archaeological consultant will submit a report to the Heritage Operation Unit of the Ministry of Culture and Heritage Preservation Services at the City. 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 provide more extensive documentation and/or field work. City of Toronto Heritage Preservation Services staff will also review the report to ensure that it meets with their approval.
- If the assessment complies with current licensing and technical standards and did not result in the identification of any potential impact to an archaeological feature 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 2 assessment), the Ministry of Culture will provide a letter to both the development applicant and the

City Heritage Preservation Services, which will serve as notice that all provincial concerns with respect to archaeological resource conservation and archaeological licensing have been met. Upon receipt of this notification of Ministry of Culture approval, and supporting documentation from the archaeological consultant, the City may then clear the planning application of any further archaeological concern.

- If the assessment did result in the requirement of monitoring and 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 approval authority that there are no further archaeological concerns, or that additional mitigations be undertaken, as the case may be. City of Toronto Heritage Preservation Services staff will also review the report to ensure that it meets with their approval.
- 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 may be 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 Ministry of Culture staff, and the proponent providing information regarding any outstanding concerns (e.g., commitment to production of the final report).
- 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 City will clear the planning application of further archaeological concern.

Should the proponent choose not to proceed with all necessary assessment and/or site mitigations prior to, and in support of the application, the completion of these activities to the satisfaction of the Ministry of Culture must be made a condition of planning approval.

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 should 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. 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, although should a resource be registered in the provincial OASD, the Ontario Heritage Act provides such resources with automatic protection from impacts of any nature.

4 After the Assessments: Conservation/Curation Concerns

4.1 Does Excavation “Save” An Artifact?

This is an important consideration. Clearly, if a site is being excavated prior to development, carefully excavating and removing the artifacts from that site will preserve them. If a site and its components are not threatened then the answer to this question is no. When an artifact is initially buried it undergoes rapid degradation. After this the object can do one of two things. It can be completely consumed by the burial environment or it can reach equilibrium with that environment. At equilibrium, the artifact’s condition stabilizes and it survives. Excavation disturbs the equilibrium. Once excavated, an object rapidly degrades during the process of reaching equilibrium with its new environment, if this is not the same as its burial environment. Hence the maxim: “if an artifact was in a wet environment, keep it wet; if it was in a dry environment, keep it dry.”

Some materials are more durable than others. Stone, ceramic and glass artifacts tend to survive excavation far better than organic materials such as leather, wood and paper. Metal objects, particularly those from a salty environment are also problematic. Proper field preservation is an important step in ensuring an artifact survives. Following this, many objects require some sort of stabilizing conservation treatment. Post excavation curation of sensitive materials such as metals and organics often requires special climate control—whether in storage or on exhibit—to ensure their preservation.

4.2 Conservation Treatments

Conserving small archaeological finds is fairly straightforward. Large objects such as Knapp’s Roller Boat, should it survive with any degree of integrity, large wooden craft and/or wooden wharf structures are quite a different story. Their physical size makes them difficult to treat. Custom-built facilities and equipment would be required if full treatment is to be undertaken, rather than simply leaving the remains be, without the further interventions that represent “best practices.”

A significant factor behind the high costs of treatment of metals is the complexity of the conservation techniques required. Stabilizing any iron object from a salty environment, whether it is marine or terrestrial, is a costly and long-term project. It is safe to say that the soils on Toronto’s waterfront are salty. If the inherent

chloride corrosion products in iron artifacts are not addressed through appropriate treatment, the material is highly unstable.

A case in point would be the American Civil War submarine *H.L. Hunley*. This vessel is approximately one-third the size of Knapp’s Roller Boat. The recovery, excavation and conservation work on the vessel has reportedly cost in the order of US\$18,000,000 in public and private monies. A facility has been custom-built to house and preserve the submarine. The *Hunley*’s chief conservator has a 10 year contract to coordinate the lifting, excavation and stabilization of the submarine and its components.

Preserving large wooden artifacts is also time consuming and expensive. Over the last few decades a number of large waterlogged wooden objects such as boats and wooden structures have been preserved. The standard treatment for water logged wood is a pretreatment with polyethylene glycol (PEG) followed by freeze drying. An approximate estimate of treatment by immersion treatment in PEG followed by freeze drying provided by the Mary Rose Trust in England is \$12,000 per cubic metre of wood, exclusive of the costs of suitable treatment tanks, freeze dryers, a building to house them, and qualified staff to operate such facilities. Freeze drying equipment is particularly costly, and standard units are not large enough to accommodate timbers from a wharf. The largest units currently built for archaeological timbers are manufactured in England and have chambers that measure six feet in diameter and 20 feet in length. The current cost for such a machine is \$305,000.00.

Using the estimate of \$12,000 per cubic metre, it may be estimated that the material costs of PEG treatment and freeze drying of a single six metre square crib that survived to a height of eight courses of timbers and was very simply built would be in the order of \$575,000-\$650,000. This is based on the assumption that such a crib, which would be small by Toronto waterfront standards, would constitute between 48 and 54 cubic metres of timber. Moreover, it does not include the costs to record, disassemble, transport the remains to any conservation facility or to reassemble the structure.

A less theoretical sense of the order of magnitude of costs may be gained from the story of the wooden ship, dubbed the *Ronson*, found under fill in New York City in 1981 (Cantwell and DiZerega Wall 2001:325-326). Estimates for the removal, conservation and exhibition of the entire 92 foot long, 25 foot wide ship were approximately US\$6,000,000 in 1981. Given these costs it was elected to preserve only a 20 foot long section of the hull. This work was carried out at a cost of US\$350,000. Once completed, the only museum willing to take the ship was the Mariners’ Museum in Newport News, Virginia, which had committed US\$400,000 to house the ship.

Similarly, the treatment costs for the 15th century ship recently discovered at Newport in Wales are estimated at between \$1,000,000 and \$2,000,000. These costs include freeze dryer purchase, chemicals and staffing requirements, but do not include the recovery, recording or warehousing expenses.

Given the magnitude of the money involved in such projects, Parks Canada has, in the past, treated a number of oversized wooden materials through careful air drying. The results have been mixed. Warping and splitting is a common occurrence, and must be recognized as a likely outcome prior to embarking on any such approach to treatment. Timbers recovered from two sites on the Toronto waterfront have been dealt with using essentially the same sort of “benign neglect” approach. In 1986, timbers from the Commissariat Wharf uncovered during construction of the SkyDome (Rogers Centre) were removed from the site and have since been stored in the John Street Roundhouse. In 2006, timbers from the section of the Queen’s Wharf uncovered at the northwest corner of Bathurst and Fleet streets were transferred to Fort York, where they remain outside. The timbers from both sites reportedly remain sound, although their long-term stability is questionable. This may not be a concern if one takes the view that they represent materials to be reused for a variety of purposes (including but not limited to heritage interpretation) rather than artifacts in the traditional sense (see Section 4.4).

4.3 Toxicity

Toxicity of archaeological soils and consequently the artifacts buried therein should be considered. Excavating artifacts from a contaminated site requires extra care. Protection of the archaeologists, the general public and conservation/curation staff

is crucial. Studies have shown that excavating contaminated sites costs, on average, four to five times that of an uncontaminated site. Conserving contaminated objects is a challenge. Treatment must begin with decontamination if this is possible. Contaminates may also interfere with the treatment process. Although not considered a toxin, iron-contaminated, waterlogged artifacts are a problem. The presence of iron reduces the efficacy of the PEG treatment (by lowering the molecular weight of the consolidant) considerably. These artifacts must be pretreated with a chelating agent to remove the iron. Exhibiting contaminated objects is also a concern.

4.4 Exhibition

Exhibiting large archaeological finds is challenging. For example, a large wooden craft and/or wharf structure would require an internal support system that is custom engineered and built to support the structure. The reconstruction of the seventeenth-century Basque whaling boat (chalupa) sunk in Red Bay in Newfoundland, for example, which took place in the 1980s and 1990s, cost approximately \$102,000.00 (exclusive of processing the remains or documenting them).

Wooden artifacts require a stable exhibit and storage environment with a relative humidity (RH) of about %50. Maintaining this level of climate control would require a custom-built facility with specialized HVAC systems. Metal objects are best kept dry with the RH level being %35 or lower. Clearly, if wooden and metal artifacts were to be exhibited in the same facility, special microclimates would need to be developed and maintained. Preserving and exhibiting a degraded portion of Knapp's Roller boat, for example, would require fabrication of a custom designed enclosure with special climate controls. Exhibit maintenance costs must also be considered. Artifacts exhibited in cases are less of a concern than those on open display. The exhibit facility's operating budget must include costs for periodic cleaning carried out by conservation specialists.

Notwithstanding the various conservation considerations with respect to wooden objects, it may be desirable to adaptively re-use timbers from waterfront cribbing as landscape elements or park/street furniture within the public spaces on the waterfront. Incorporating the physical remains of these features within the design plans could serve as a highly effective contribution to the overall interpretation and commemoration goals of the ACMS, outside of any formal heritage exhibit

context. Treatment of these timbers could be restricted to simply drying them and ensuring that they are not been contaminated. Over the long term they would, of course, deteriorate to the point where they need to be replaced, as do all exterior fixtures. If this option is pursued, the management plan for the open space facilities must recognize this limitation and include provisions for the maintenance and eventual replacement of the installations.

4.5 In Situ Preservation:

In situ preservation of archaeological remains, such as exemplified at the Pointe-a-Callière Montréal Museum of Archaeology and History in Montreal, is very exciting and gives the visitor a real sense of what an archaeologist uncovers during an excavation. Foundations and walls lend themselves best to this sort of preservation. Preserving and maintaining in situ remains in our climate is only feasible if they are protected by a structure. In the case of Pointe-a-Callière, the museum itself provides the protection needed. Even with the remains protected from the elements, ongoing maintenance—including cleaning and periodic repairs—will be necessary.

4.5 Curation Costs

Recent studies undertaken in the United States (e.g., Sullivan and Childs 2003; Childs and Kinsey 2003) clearly document the cost of curating archaeological collections. Care for excavated artifacts and the associated documentation should be factored into any archaeological excavation. Research has shown that curation costs for archaeological collections across the United States ranged from \$60.00 to \$1,500.00 per cubic foot in 2002. In addition, a number of repositories charge per linear foot for maintaining the associated documentation. Whether the artifacts associated with an excavation are maintained by the archaeologist or a central repository, we need to accept the fact that we are responsible for maintaining this material and making it accessible to researchers now and in the future.

In summary, many of the examples reviewed here demonstrate that full conservation and curation of large-scale remains can be an extremely costly undertaking. This is not to say that these costs cannot, in certain cases, be recouped through related heritage tourism development, as is certainly the case with the *Mary Rose*.

5 Aboriginal Occupation of the Lakeshore

Toronto's 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.

The shoreline that existed at the time of the founding of the Town of York in 1793 was comparatively young. Following in the wake of the retreat of the glaciers, the earliest Lake Ontario shoreline (circa 10,400 B.P.) was about five kilometres south of its present location. Over the following millennia, the shoreline gradually moved northward. Even by about 5,000 B.P., however, it is still unlikely that Toronto Harbour, protected by the submerged bank of sediment associated with the emergent Toronto spit, had yet begun to fill. Between about 5,000 and 4,000 B.P., the Nipissing Flood phase increased water levels to near or slightly above nineteenth-century levels (Anderson and Lewis 1985; Weninger and McAndrews 1989). Levels subsided by three to four metres again between about 4,000 and

3,500 years ago, and by circa 3,000 B.P., the shoreline was established more or less in the location at which it stood in the 1790s.

Thus, the shifting water levels of Lake Ontario are likely to have destroyed or submerged evidence of occupations along the shoreline in the Toronto waterfront area prior to circa 5,000 B.C. Moreover, the intensity of nineteenth- and twentieth-century land use in the study area is likely to have destroyed or dispersed the comparatively ephemeral archaeological deposits left by the precontact occupation of the 5,000 B.C.-A.D. 1700 shoreline zone. In the comparatively few instances that precontact remains have been recovered during archaeological excavations in the downtown core, they have been found in secondary contexts. Isolated aboriginal lithic artifacts, for example, have been found during excavations within the grounds of Fort York (David Spittal, personal communication, 2005). The age of these items is unknown. They may represent either precontact or contact period material. Similarly, limited indications of a Late Woodland period occupation were found at the nineteenth-century Thornton Blackburn site at the corner of Cherry Street and Eastern Avenue (ARC 1986). Finally, an Early Archaic (circa 8,000 B.C.) projectile point was recovered from nineteenth-century landscape fills at the Toronto General Hospital site at King and John Streets. These discoveries only hint at the scale of precontact occupation and use of the shoreline.

6 Lakeshore Development

6.1 The Pristine Nineteenth Century Lakeshore

When the Town of York was surveyed by Alexander Aitkin in 1793, a narrow “broken front” strip of land remained between the bay and the top of the bank south of Front Street. This strip of ground was a feature of the Toronto waterfront which was reserved by the government from the very beginning of settlement in the region, and was illustrated on maps as early as the Gother Mann survey of December 1788.

A distinctive feature of the nineteenth-century shore was its narrow limestone shingle beach, just wide enough for the passage of vehicles, lying below a steep shore cliff of up to eight metres height. The shore cliffs are depicted on numerous nineteenth century maps, as well as contemporary sketches and paintings, as are the well-defined topographic breaks in the face of the shorecliff that were cut by the numerous creeks that drained into the lake. To greater or lesser degrees, such features would have served as convenient landing points and routes inland, which in some cases at least, influenced patterns of later development. Between the bank and the water’s edge there was very little land available and due to the topography and the action of the water it was unsuitable for building purposes. Therefore during the first half century following the establishment of Toronto there was very little development along the south side of Front Street which was simply described by Walton in 1833 as lands “fronting the bay” (Walton 1833:11). City Council minutes and other eyewitness accounts refer to the shore area as being home to transients with recommendations that their huts be cleared from the area.

During the early nineteenth century, the strip at the top of the bank was occupied by a gravel walk which Henry Scadding described as extending from Peter Street to the Government Reserve in the east. The walk varied in width between four and five chains (264-330 feet) and contained approximately 30 acres. Small creeks were spanned by hewn log bridges, and the walk was maintained by the military. Scadding continued:

From its’ agreeableness, overlooking as it did, through its whole length the Harbour and Lake, this walk gave birth to the idea, which became a fixed one in the minds of the early people of the place, that there was to be kept in perpetuity, in front of the whole town, a pleasant promenade, on which the burghers and

their families should take the air and disport themselves generally.

Scadding further observed that “the paucity of open squares in the early plans of York may be partly accounted for by this provision made for a spacious Public Walk.” The patent for this strip, described as a “Mall,” was granted in perpetuity to trustees John Beverly Robinson, William Allan, George Crookshank, Duncan Cameron and Grant Powell for the benefit of the inhabitants of the town, on July 14, 1818 (Scadding 1873:80-81). The Walks and Gardens were later granted by John Beverly Robinson to the City of Toronto.

Over the years numerous plans for the enhancement of these public grounds, generally referred to as the Esplanade, were proposed. Of course, none of these ever came to fruition, as the area was given over to railway, shipping and industrial development.

6.2 The Development of the Waterfront

When first established in 1793, the Town of York formed a compact plot within the area now bounded by Front, George, Duke and Berkeley streets. To the east of the town plot, lay the “Government Reserve” or “Government Park”. The Park was bounded by the Don River on the east, the marsh and harbour to the south, Parliament Street on the west and Carleton Street to the north. This land was primarily intended as a defensive buffer to shield the town in the event of an attack from the east. Plans for more extensive development of this area began as early as 1810.

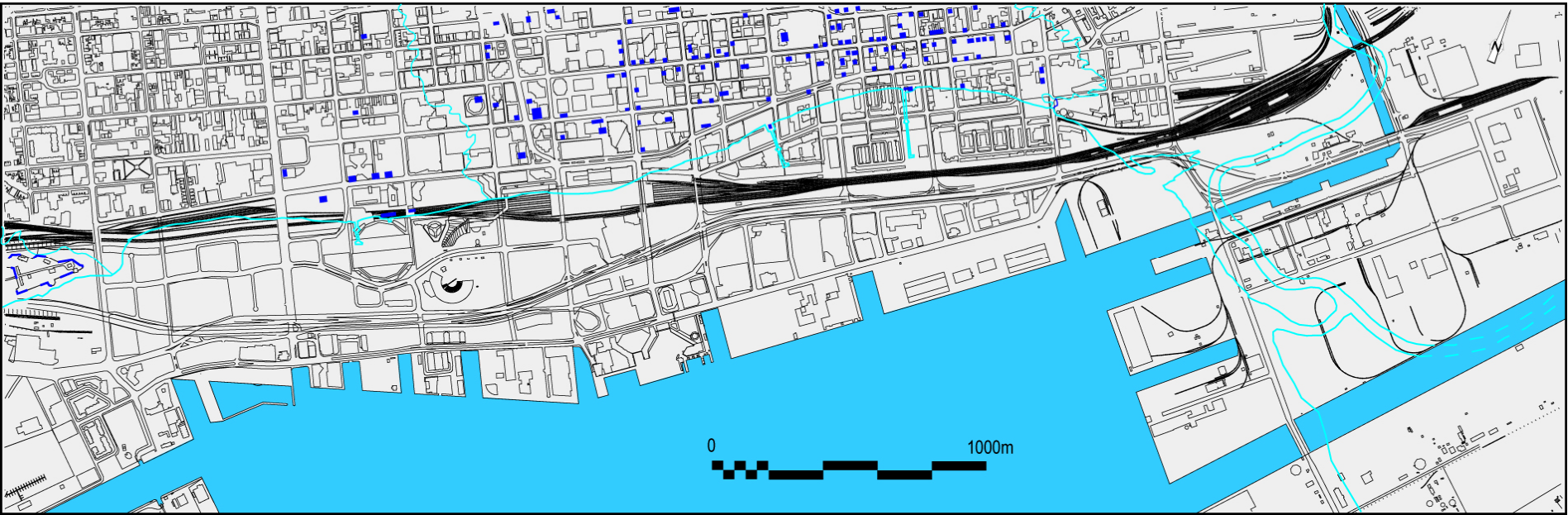
To the west of the town lay the Garrison Reserve, which was centred on Fort York. The Garrison maintained control of those lands east of Garrison Creek, between the lakeshore and the present Queen and Peter Streets until the 1830s. The area between the Garrison Reserve and the original Town was gradually brought into the civic sphere. In 1797, the town plot was initially expanded to York Street. And then again as far as Peter Street which abutted the military reserve. These new lands were to be occupied by a number of public buildings including a church, school, court house, jail and market (Firth 1962:42-44, 46).



Lieut. Phillpotts *Plan of York* (Plan BB37). Royal Engineers Department, September 24, 1823 (reportedly surveyed ca. 1818).

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, which necessitated the construction of harbour infrastructure. The comparatively thin mantle of lakebottom sediments overlying bedrock along the shore prohibited a reliance on deeply-driven piles to construct shoreline features. As in many other places, freestanding timber cribs were used to build the foundations for wharves and piers. 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, at the foot of Parliament Street, west to a prominent headland near the site of Fort Rouillé around the foot of Dufferin Street.

The first major wharf structures, the King’s, Cooper’s and Merchant’s wharves were in place by circa 1820 at the foot of Peter, Church and Frederick streets, respectively. By 1842, seven new wharves had been added to the waterfront. These were the New Pier, later renamed the Queen’s Wharf at the foot of Bathurst Street, the Commissariat Pier, King’s or Navy Wharf at John Street, Rees’ Pier at Simcoe Street, Tinning’s Wharf at York Street, the Yonge Street Pier, as well as Browne’s and MacDonald’s wharves, which flanked the older Cooper’s Wharf. The Commissariat Wharf and to some degree the Queen’s Wharf were intended to serve the Garrison, while Rees’s Pier was primarily intended as the landing place for immigrants to the City. The remainder served commercial interests in the town. The size of the Queen’s Wharf at the entrance to the harbour to some degree belies its importance as a transshipment facility. Its construction so far out into the lake was an effort to accelerate the flow of water through the harbour mouth thereby combating the perennial problem of the channel silting up, and delaying freeze up in winter (Hart n.d.:4).



The Toronto shoreline circa 1820.

The proximity of Browne’s, Cooper’s and MacDonald’s wharves to one another at Church Street anticipated later developments. For as wharves multiplied over the course of the next few decades, and as they were extended further and further into the lake, the landward ends of the slips between them were filled. This pattern of gradual development, known as “wharfing out,” was responsible for the creation of relatively small blocks of new land, particularly between Church and Berkeley streets between the 1870s and 1880s.

As pressure on the waterfront increased during the second half of the nineteenth century, more deliberate and ambitious “crib and fill” operations were carried out to create substantial areas of new, made land⁶. In these projects, cribs that were basically identical to those used in wharves were used to build walls around the perimeter of the area of open water that was to be filled. The fill used during this first phase of expansion included sewage, municipal waste (chiefly in the form of

coal cinders), material from construction sites and material dredged from the harbour bottom. The latter type of fill may be expected to contain fragments of derelict boats, wharf structures and other marine material.

The main proponents of these much more extensive campaigns of landmaking were the railways, which needed access to the harbour and space for their yard and station facilities. The three major railway companies, the Ontario, Simcoe and Huron Railway (later renamed the Northern Railway), the Great Western Railway and the Grand Trunk Railway, all entered Toronto in the 1850s and set about cutting down the south face of the original shorecliffs and filling along virtually the entire waterfront. The fill used to create the new land behind the crib walls of the Esplanade in the 1850s included sewage, “cellar dirt” excavated on construction sites in the town, and most importantly, material cut from the south edge of the shoreline terrace by the railways as they built their waterfront lines. Maps such as the *Boulton Atlas* of 1858 provide very useful records of the progress of landmaking during this period, but they may be somewhat misleading. On these maps large areas of neatly defined new land appear to be under-utilized. In reality much of these new lands were only minimally filled and were unsuitable for any form of development. The railways concentrated their efforts only on the construction of causeways for their track beds and the areas to be occupied by their yards and stations. Period sources frequently comment upon the incomplete state of the filling, which lead to the creation of “lagoons” or “unfilled sloughs.” According to the miasmatic theories of disease prevalent at the time, such environments were

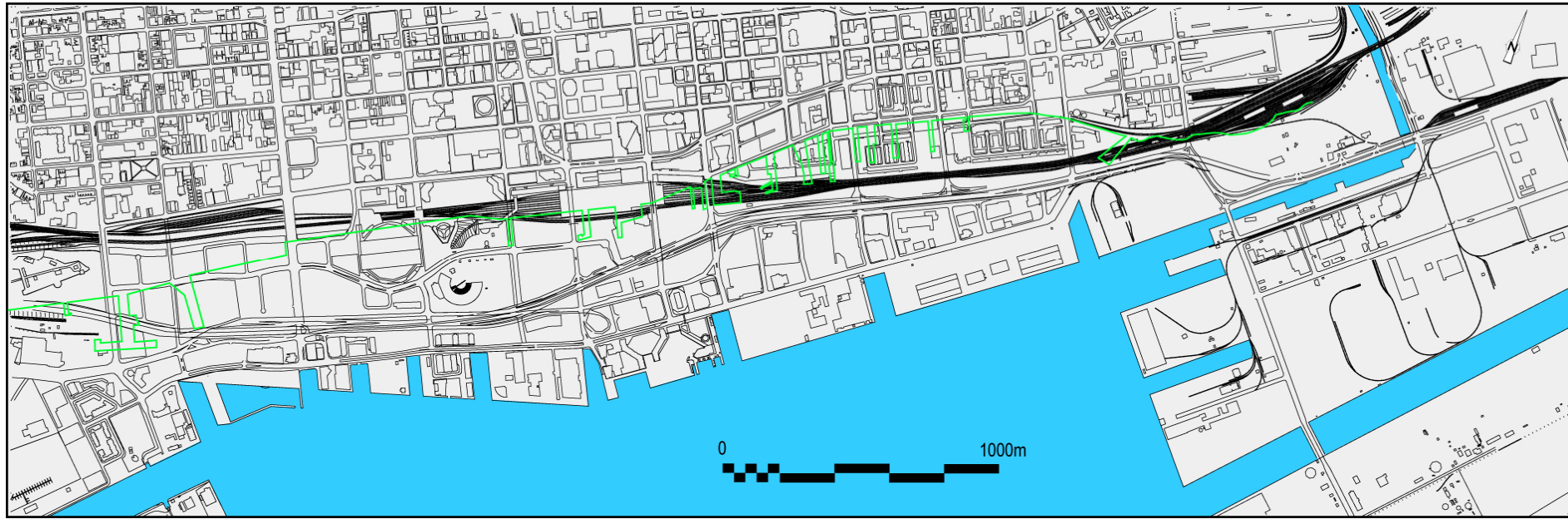
⁶ The terms used to describe the areas created by the southward expansion of the waterfront, and the processes involved in their development are those defined by Seasholes (2003). While these may not correspond to civil engineering usage, they are more accurate characterizations of the activities that took place along the shore of Toronto Harbour. “Made land” is created by filling in shallow foreshores, river flats, and marshes. Such work is “landmaking” rather than “land filling” or “land reclamation” Land reclamation proceeds by diking, pumping and draining seasonally or permanently inundated lands, or those affected by tides. Land filling represents the addition of material to raise the grade of existing land, be this to improve drainage or for other reasons (Seasholes 2003:2).

NINETEENTH-CENTURY SHORELINE ENGINEERING

Until the early twentieth century, wharf and shorewall construction relied on timber cribwork. Contract specifications and civil engineering descriptions provide quite detailed accounts of crib construction. They were essentially frame boxes reinforced by cross members. The timbers used were generally 10 to 15 inch square and could be of any length. Those portions of the structures that were underwater could be constructed of virtually any type of sound wood, whereas above the low water line white pine was preferred because of its durability. Even so, the face members that stood above the waterline, as well as any superstructures they carried, only had a life expectancy of 10 to 25 years. The cribs were assembled in shallow water and towed to their final site, where they were moored and sunk after the lake bottom had been sounded, levelled and cleared of debris. They were sunk using rock ballast. In landmaking operations, cribs were to be set in 11 feet of water, with an additional four feet remaining above the water line.

Typically, the cribs would carry a superstructure of some form, depending on the function of the feature. The first set of specifications for the construction of the Esplanade, in 1854, stipulate that “instead of the cribs being carried up separately, they are to show above water as a continuous and unbroken facing of timber.” These requirements were repeated in the 1856 Esplanade specifications and, to some extent, reflect aesthetic concerns and a desire to provide a neat and well-finished structure. Early photos of the Esplanade harbour wall show these as horizontal beams that were fixed to the face of the upper portions of the cribs. The facade does not, in fact, look substantially different that the timberwork used in construction of the submerged crib foundations, as documented archaeologically. Many of the public wharves on the waterfront were also built with superstructure facades of similar quality, although sheet piling or lagging often served to create the uniform facade.

Upon the superstructure would sit any buildings, rail lines or other facilities that were required. Open spaces on the decks were frequently used for coal storage, which created a whole suite of problems. In 1882, on the Jaques and Hayes Wharf east of York Street, for example, a three to four thousand ton stockpile of coal caught fire, destroying a large part of the wharf. These open stores were a major source of air pollution, as well. Windborne clouds of coal dust spread a pall throughout the harbour and city. Correspondence of the early 1870s concerning the lighthouse keepers’ residence on the Queen’s Wharf indicates that the problem was so bad that the house was essentially uninhabitable.



The Toronto shoreline in 1858.

seen as severe threats to human health. Given that these artificial cesspools also trapped vast amounts of raw sewage from the city's sewers, such concerns were probably not unfounded. In the end, it fell to the city to complete the filling operations in these problematic areas.

The waterfront was radically altered by the railways, as tracks, terminals, freight stations, utilities and new wharves were erected. Numerous industrial operations were attracted to the area as well, given the ready access it offered to both the rail and shipping networks. These developments also expanded westwards from the original core as the military relinquished its control of the Garrison Reserve west of Peter Street.

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 by that of the Grand Trunk and the Great Western Railways over the next few years.

The Northern Railway occupied several terminals in Toronto before being absorbed into the Grand Trunk system in 1888. Its first passenger station was on the waterfront near Bay and Front Streets and the company developed a freight handling complex, located approximately 150 metres to the east of the Queen's Wharf. 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 (HRL 1983:7). By the 1880s, the Northern Railway had constructed four wharves along the edge of the harbour.

The second railway to arrive in Toronto—the Great Western—entered the city from the west along the lakeshore in 1855. The company erected a locomotive terminal and freight shed on the north side of Fort York before relocating its central facilities to east of Yonge Street in the mid-1860s (HRL 1983:8).

The Grand Trunk was the last of the pioneering railways to enter the City and ultimately grew to be the most important of the three. The railway entered Toronto from the east, along the lakeshore. Their track reached the Don River in 1855. Difficulties in negotiating rail access to the harbour via the Esplanade meant that goods and passengers had to be bussed to the company's terminal, which was located at the Queen's Wharf (HRL 1983:7). These difficulties were resolved in 1857, 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

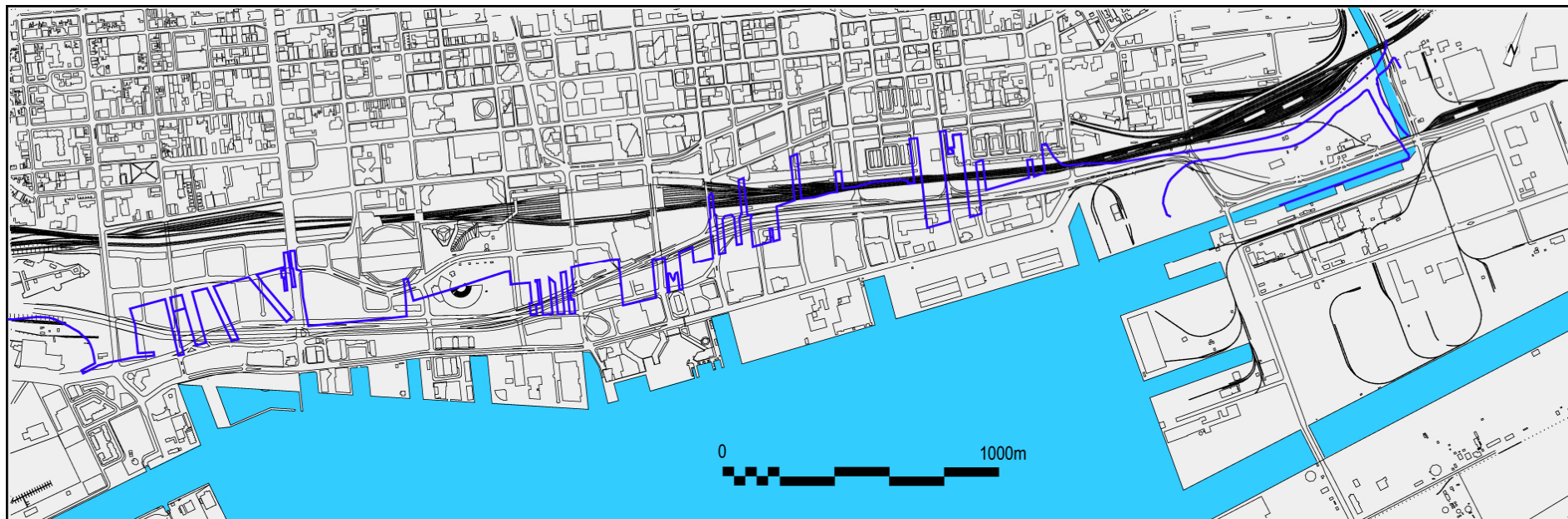
Street (HRL 1983:8; 1986:119). By the 1870s, the Grand Trunk had shifted the majority of its facilities to the vicinity of Union Station, leasing its Queen's Wharf terminal to the Toronto Grey and Bruce Railway (HRL 1983:8).

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 (HRL 1989:55).

The numerous tracks within the narrow area to the south of Front Street created an exceedingly busy corridor, which caused great inconvenience for traffic between the city and the harbour. 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 in the 1890s (HRL 1983:23-25) and causing further congestion.

The growing transportation system was accompanied by commercial and industrial development as factories, warehouses and service industries sprang up across the entire waterfront. These ranged from comparatively small operations to very large complexes, such as those of the Gooderham & Worts distillery and the Davies Meat Packing Company.

After many years of debate and negotiation, the southern limit within which construction and filling was permitted along the Toronto harbour front was extended to the "New Windmill Line." The federal government approved this new line in 1893. The expansion was necessary to allow for the development of 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 drafts of greater than 10 feet (HRL 1989:57).



The Toronto shoreline in 1910.

The City constructed a new shorewall of rock-filled timber cribs along the New Windmill line and began to fill the area with municipal waste, consisting of “all the ashes and other suitable material collected in the section bounded by College, Spadina, and Sherbourne Streets” (HRL 1989:58). This work was largely complete by 1899 and included the creation of Lake Street. Many of the older wharves were rendered redundant by this new phase of expansion and were buried. It was anticipated that this new area of landmaking would be sufficient for Toronto’s needs for the next 30 years.

Extending the harbour lands to the New Windmill Line 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). Ashbridge’s Bay was largely a marshy bay at the foot of the Don River, bounded on the west by a sand spit and on the south by the peninsula which was later breached to form the Toronto Islands. 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.

Similarly, the Don River, which had long presented challenges to the development and operation of the waterfront, was the focus of much attention. The river carried considerable silt, which clogged the harbour and required ongoing dredging to maintain navigability. It was also used as a convenient and inexpensive sewer

outfall, which added to the silting of the harbour and to the real and perceived unsanitary character of Ashbridge’s Bay. Pollution of the waters was exacerbated after 1872 when Gooderham & Worts opened a vast cattle-feeding operation on the east bank of the river. City Council allocated funds, in 1886, to straighten and deepen the lower Don. The work extended downstream from Winchester Street (approximately where the Canadian Pacific Railway today crosses the Don north of Gerrard) to the Grand Trunk Railway bridge near the mouth of the river. The improvements included removing bends in the river, dredging the channel to 12 feet below lake level, and reinforcing the waterway with timber piling. On either side of the channel, 23 feet was reserved for dock space, 52 feet for railways, and 50 feet for roads. To further prevent flooding, low-lying land adjacent to the river was raised three feet above the lake high-water mark. The bulk of this work was completed in 1887. It seems to have done little good, however, as complaints about the shallowness of the east end of the harbour persisted and, in 1901, the city’s engineer noted that the reinforcing piles had completely rotted away in many cases, and needed replacing.

Beginning in 1912, planning began for a renewed programme of landmaking, which was undertaken starting in 1916. It involved the construction of a concrete 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. The area behind the wall was filled in with sediments dredged from the harbour floor, and the project was completed in stages. West of

Yonge Street, this work was largely completed by 1926. The work took somewhat longer to complete between Yonge Street and Cherry streets, due to legal issues associated with filling. Once they were solved, financial problems on the part of the Harbour Commission reduced the amount of newly created land to half that which had been planned. While some work was carried out in the 1930s, the 1912 landmaking plan was not completed until the lands south of Queen’s Quay were filled in 1952. The project begun in 1912 also involved reclaiming land from the Great Marsh. Bounded by concrete headwalls, the area was filled with sand dredged from the bottom of the lake.

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. Generally, the embankments were constructed from temporary wooden trestles with a rail line on top, and the fill was dumped from the railway cars (HRL 1989:64).

The grade separation, known as the “High Line” 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 (HRL 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 (HRL 1983:57-58).

7 Inventory of Archaeological Features

For the purposes of the inventory, the study area has been broken down into four zones, which generally correspond to the overall waterfront planning precincts. The **Central Waterfront** includes those lands south of Lakeshore Boulevard between Bathurst Street and Jarvis Street. The **East Bayfront** incorporates the area south of Lakeshore Boulevard between Jarvis Street and Parliament Street. The **Port Lands** extend from Lakeshore Boulevard south to the north shore of the Outer Harbour. The east and west boundaries of the Port Land precinct are marked by Leslie Street and the line of Parliament Street, respectively. This area incorporates the **Lower Don Lands** precinct, which has been treated as a distinct area in some other studies. Finally the **West Don Lands** include an irregular area roughly bounded by sections of Queen Street, King Street St., Lawrence Street, Eastern Avenue, Parliament Street, Mill Street, Cherry Street, the Canadian National Railway lines and the Don River itself.

Brief historical summaries are provided for each precinct. These provide overviews of waterfront development to the 1950s. They are not comprehensive accounts of the land use histories of the areas, rather they are intended to describe the various agents of change that are represented by known or potential material remains. The inventories include all identified features of potential archaeological concern that are located, whole or in part, within the ACMS study area. The accompanying mapping plots the general location of these features, as well as the locations of some of the other contemporary and later developments that may be expected to have had impacts to archaeological potential and/or the integrity of the inventoried features.

The mapping has been compiled using selected cartographic sources from the early-nineteenth to mid-twentieth centuries. These have been overlaid on modern base mapping of the city. The process of overlaying historic maps on the modern streetscape, using common reference points between the various sources is one in which there are numerous potential sources of error, given the vagaries of map production (both past and present), the need to resolve differences of scale and resolution, and distortions introduced by reproduction of the sources. To a large degree, the significance of such margins of error is dependent on the size of the feature one is attempting to plot, the constancy of reference points, the distances between them, and the consistency with which both they and the target feature are

depicted on the period mapping. In the present exercise, there has been considerable variation in all dimensions. In view of these constraints, it must be emphasized that the locations of the features on the overlays are for broad-scale planning purposes only. While the general placement of features is believed to be largely accurate, the location or configuration of any feature within specific properties should not be considered to be absolutely precise.

7.1 The Central Waterfront

Summary Historical Context

The lands within the Central Waterfront study area were all formed during late-nineteenth and twentieth-century landmaking operations. The earliest developments were those that extended the shoreline wharves between Simcoe Street and Church Street to the New Windmill Line. They were succeeded by the massive campaigns of filling to the Harbour Head Line. Construction of the Harbour Head Line began in 1916 at the foot of Bathurst and had reached the foot of Yonge Street by 1923. The shorewalls, slips and docks associated with this section of the Head Line were formed by timber cribbing capped with concrete. The areas behind were filled using hydraulic dredges working in the harbour. Use of this material for the fill behind the Head Line had the advantage of deepening the harbour at the same time.



Valentine and Sons Co. post card showing the Toronto Ferry Terminal, circa 1910
(www.hhpl.on.ca/GreatLakes/GLImages)

Filling of the Central Waterfront between Yonge Street and Jarvis was completed in the mid- to late 1920s. This work also involved construction of a timber retaining wall, known as the Pierhead or Bulkhead Line, between the New Windmill Line and the Harbour Head Line (along the future alignment of Queen's Quay), stretching from Yonge to Berkeley. This feature was built using timber piles driven to bedrock and joined by waling and was faced, on the south side, with sheet piling which also extended to bedrock depth. Steel rods that were run to anchor piles on the inland side were used to reinforce the structure (Stinson and Moir 1991). The final campaign of filling, to the Harbourhead Line which achieved the modern configuration of the central waterfront took place between the 1930s and the 1950s.

Following the basic proposal outlined in the 1912 Harbour Commission Plan, the areas developed in the twentieth century were occupied by a mix of industrial concerns. Proceeding from west to east, north of the Pierhead Line, developments on the lands formed in the 1920s included the emergence of a largely industrial precinct at the foot of Bathurst Street; the reconfiguration and expansion of the Canadian National Railway's Spadina Yard; the continued use of the Canadian Pacific Railway's John Street Yard; and the construction of as many as 17 commercial and civic wharves between Simcoe and Jarvis streets.

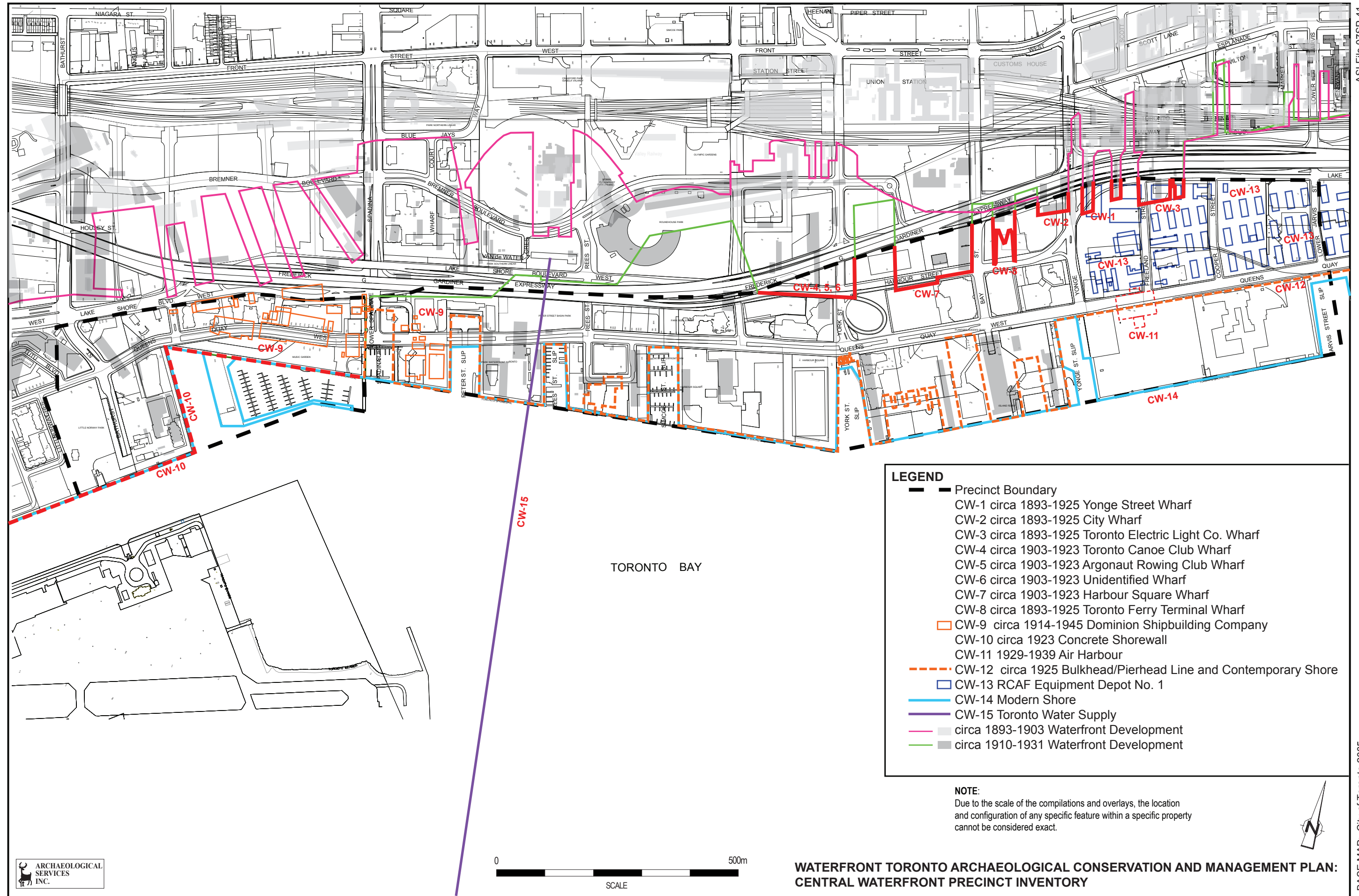
Two short-lived developments of note in the central and eastern sections of the precinct were the Air Harbour at the foot of Freeland Street (1929-1939) and the Royal Canadian Air Force's Equipment Depot No. 1 (1940-1946), which encompassed the grounds between Yonge, Sherbourne and Fleet (Lakeshore Boulevard) and Queen's Quay.

At the west end of the precinct, the yards of the Dominion Shipbuilding Company were located on Spadina Quay. It was the largest of Toronto's shipbuilders during the First World War. After the operations closed in 1921, the site was taken over by a variety of other industries, chiefly those that required large scale-storage space for bulk materials. During the Second World War, however, the shipyards were re-commissioned. The most prominent features, however, were the Terminal Warehouse, and the Playfair and Canada Malting elevators, opened in 1928 near the foot of Bathurst.

Expansion of the commercial, industrial and warehousing functions of the waterfront continued through to the 1950s. The most notable of the warehousing and shipping concerns were the Canada Steamship Lines’ piers and warehouses on Piers 6-8 between York and Yonge, and the marine terminals of the Queen Elizabeth Docks built to the east of Yonge Street.

| Central Waterfront Archaeological Inventory | | |
|---|----------------------------------|---|
| No. | Resource/Feature | Description |
| CW-1 | Yonge Street Wharf | The heads of the Yonge Street Wharf (also known as Wharves 21 and 22) extend south of Lakeshore Boulevard into the precinct study area. The complex, which is the successor of the earlier Milloy’s wharf located further north, consisted of two piers flanking a wide slip. These sections of the wharf date between circa 1893 and circa 1925, with the Wharf 21 pier being the earlier of the two. A warehouse-type structure ran much of the length of both piers. The site was subsumed by lake fill between 1926 and 1928. Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. |
| CW-2 | City Wharf | The head of the City Wharf (also known as Wharf 20) extends south of Lakeshore Boulevard into the precinct study area. This section of the wharf dates between circa 1893 and circa 1925. Up to three structures occupied the end of the wharf. The site was subsumed by lake fill between 1926 and 1928. Any surviving remnants of this structure were destroyed by construction of a condominium tower in 2004-2005. |
| CW-3 | Toronto Electric Light Co. Wharf | The head of the Toronto Electric Light Co. Wharf (also known as Wharves 23-25) extends south of Lakeshore Boulevard into the precinct study area. The earliest portion of this section of the wharf dates to circa 1893 (Wharves 23-24). The complex was expanded to the east between circa 1903 and 1910 (Wharf 25). Up to two structures occupied the end of the wharf. The site was subsumed by lake fill between 1926 and 1928. Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. |
| CW-4 | Toronto Canoe Club Wharf | The head of the Toronto Canoe Club Wharf (also known as Wharf 16) extends south of Lakeshore Boulevard into the precinct study area. This section of the wharf was built between 1903 and 1910. The complex was expanded to the east between circa 1903 and 1910 (Wharf 25). One boat house occupied the extreme end of the wharf in the study area. The slips between this and the adjacent wharves had been filled in by 1923. The site was subsumed by lake fill between 1926 and 1928. Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. |
| CW-5 | Argonaut Rowing Club Wharf | The head of the Argonaut Rowing Club Wharf (also known as Wharf 17) extends south of Lakeshore Boulevard into the precinct study area. This section of the wharf was built between 1903 and 1910. One boat house occupied the extreme end of the wharf within the study area. The slips between this and the adjacent wharves had been filled in by 1923. The site was subsumed by lake fill between 1926 and 1928. Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. |
| CW-6 | Unidentified Wharf | The head of an unnamed wharf extends south of Lakeshore Boulevard into the precinct study area. This wharf was built between 1903 and 1910. The slips between this and the adjacent wharves had been filled in by 1923. The site was subsumed by lake fill between 1926 and 1928. Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. |
| CW-7 | Harbour Square Wharf | The heads of Harbour Square Wharf (also known as Wharves 18 and 19) extend south of Lakeshore Boulevard into the precinct study area. The wharf was completed by 1903. Two structures extended along the east and west edges of the pier. The west side of the wharf was badly damaged by the burning of the steamer <i>White Star</i> in 1903. Although it was proposed that the area occupied by the wharf be used as a park, it instead became the site of the Harbour Commission Office. The site was subsumed by lake fill between 1926 and 1928. Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. |
| CW-8 | Toronto Ferry Terminal Wharf | The heads of the Toronto Ferry Terminal wharves extend south of Lakeshore Boulevard into the precinct study area. The complex was built between 1903 and 1910. The structure featured two central slips with multiple berths. A terminal building, freight shed and coal storage areas were located on the wharf. The wharf first appears in the 1893 edition of the <i>Goad’s Atlas</i> , although it is shown only incompletely. The <i>Atlas</i> of 1910 shows that three large storage houses and two ancillary structures were located on the wharf. The latter buildings had been removed by the time of the compilation of the 1923 edition. The vast majority of the structure was destroyed by construction of a condominium tower in 2007. This work was subject to archaeological monitoring (ASI 2007a). |
| CW-9 | Dominion Shipbuilding Company | First and Second World War shipyard located on Spadina Quay. The site was variously occupied by other industrial operations. Virtually all of the lands associated with the operations have been extensively redeveloped. No significant remains are expected to have survived. The site, however, may be considered to have interpretive value in any presentations of the history of the precinct. |
| CW-10 | Concrete Shorewall | The 1923 <i>Goad’s Atlas</i> illustrates the completion of a stretch of concrete shorewalls from the Western Channel to Spadina. For the most part this structure corresponds to the modern shore line. The landward side of this feature had been partially filled and various industries established themselves on the newly available lands. From an archaeological perspective, none of the features associated with the shorewall are considered to be of potential high heritage value. This assessment is consistent with the criteria outlined in the Ministry of Culture 2006 Draft Archaeology in Ontario Standards and Guidelines (MCL 2006a). |
| CW-11 | Air Harbour | Seaplane base for mail and passenger traffic located at the foot of Freeland Street. The facility originally opened in 1929, but closed two years later due to a combination of high costs and low levels of use. It was reopened in 1934 and operated until 1939 when it was superseded by the Toronto Island Airport. Its facilities included a 100x36 foot wooden ramp, floating docks, and buildings for passengers, customs and immigration, all of |

| Central Waterfront Archaeological Inventory | | |
|---|--|--|
| No. | Resource/Feature | Description |
| | | which were demolished when the site went out of use (Stinson and Moir 1991). While subsurface remains of this occupation may survive within portions of the study area, archaeological remains of this period of the precinct’s history are not considered to be of potential high heritage value. This assessment is consistent with the criteria outlined in the Ministry of Culture 2006 Draft Archaeology in Ontario Standards and Guidelines (MCL 2006a). The site may, however, be considered to have interpretive value in any presentations of the history of the precinct |
| CW-12 (=EB-5) | Bulkhead/Pierhead Line | Circa 1925 limit of lake fill operations between Yonge and Berkeley Streets. The feature was built using timber piles driven to bedrock and joined by waling and was faced, on the south side, with sheet piling which also extended to bedrock depth. Steel rods that were run to anchor piles on the inland side were used to reinforce the structure. The waters to the south of this structure were filled between the 1930s and 1950s. Substantial portions of the feature may be expected to have survived. It is probable that roughly contemporary secondary fill retaining structures, sewage outfall features, etc. survive to the north of the Bulkhead Line. From an archaeological perspective, none of these features are considered to be of potential high heritage value. This assessment is consistent with the criteria outlined in the Ministry of Culture 2006 Draft Archaeology in Ontario Standards and Guidelines (MCL 2006a). |
| CW-13 (=EB-6) | Royal Canadian Air Force Equipment Depot No. 1 | 1940-1946 military base. The majority of the 65 buildings that made up the base were temporary frame-built structures that were removed after the war. While subsurface remains of this occupation may survive within portions of the study area, archaeological remains of this period of the precinct’s history are not considered to be of potential high heritage value. This assessment is consistent with the criteria outlined in the Ministry of Culture 2006 Draft Archaeology in Ontario Standards and Guidelines (MCL 2006a). The site may, however, be considered to have interpretive value in any presentations of the history of the precinct |
| CW-14 | Harbourhead Line and Modern Shore | Modern limit of lakefilling operations achieved in the 1950s, east of York Street. Construction involved timber piles, concrete walls and steel anchor rods. A variety of somewhat earlier and roughly contemporary secondary fill retaining structures, sewage outfall features, etc. are likely to have survived to the north of the Harbourhead Line. West of Yonge, much of the filling was completed in the 1920s behind concrete shorewalls. |
| CW-15 | Toronto Water Supply Pipe System | Municipal waterworks developed in 1872 to take over the inefficient private system. In 1875, the City of Toronto completed a 36-inch cast iron pipe from the John Street waterworks to an infiltration basin constructed on the shore of Toronto Island. Additional capacity became available in 1890-1891 when a 48-inch steel pipe was laid parallel to the first pipe. Both pipes were laid on the lakebed in trenches dredged through the lakebottom sediments. The inability of the system to provide an adequate supply was demonstrated when the low hydrant water pressure hampered efforts to contain the Great Fire of 1904. A new brick-lined tunnel, measuring eight feet high and up to eight feet wide, was completed by 1908. This feature was tunnelled through bedrock. A previous assessment report recommended that monitoring of any undertakings that might uncover the features would be an appropriate strategy (HRL 1986). |



7.2 The East Bayfront

Summary Historical Context

Similar to the Central Waterfront, the lands that make up the East Bayfront precinct are exclusively the product of twentieth-century landmaking operations. A small portion of this made land, north of the current Parliament Street Slip, was the product of re-engineering the mouth of the Don River at the turn of the twentieth century. Equally small areas represent the extension of the ends of the Polson Iron Works and City Corporation Yard wharves on either side of Sherbourne Street a short distance south of the current line of Lakeshore Boulevard.

Polson Iron Works established its boiler works at the foot of Frederick Street in 1883 and started ship building in 1893. Until the end of the First World War, the company was a successful builder of numerous vessels, but changes in the business of ship-building in Canada led to its sudden closure in 1919. The company is perhaps best remembered for building the experimental “Knapp’s Roller Boat” (further discussion of Polson’s operations and the Knapp’s Roller Boat is provided in Section 7.6).

The East Bayfront area was part of the lakefill area designated by the 1912 Harbour Plan, the most distinctive component of which was the railway viaduct extending from Bathurst Street to the Don River, completed in 1929. This earth filled viaduct provided for the elimination of rail and road crossings. From Yonge Street to Cherry Street the viaduct was built straight across the open water of the harbour, cutting off all the wharves extending south from the Esplanade.

Whereas the 1912 land expansion plan was completed at Ashbridge’s Bay and in the area west of Yonge Street during the 1920s, the portion from Yonge to Cherry was virtually dormant during the 1920s due to legal issues associated with waterfront access on the part of the established businesses. Once they were solved, financial problems on the part of the Harbour Commission reduced the amount of newly created land to half that which had been planned. This work extended the shore to the Bulkhead or Pierhead Line, a rock levee and timber bulkhead wall, located along the south side of the modern alignment of Queen’s Quay.

This section of the harbour grew in importance in the 1950s as a result of the projected completion of the St. Lawrence Seaway. The Harbour Commission

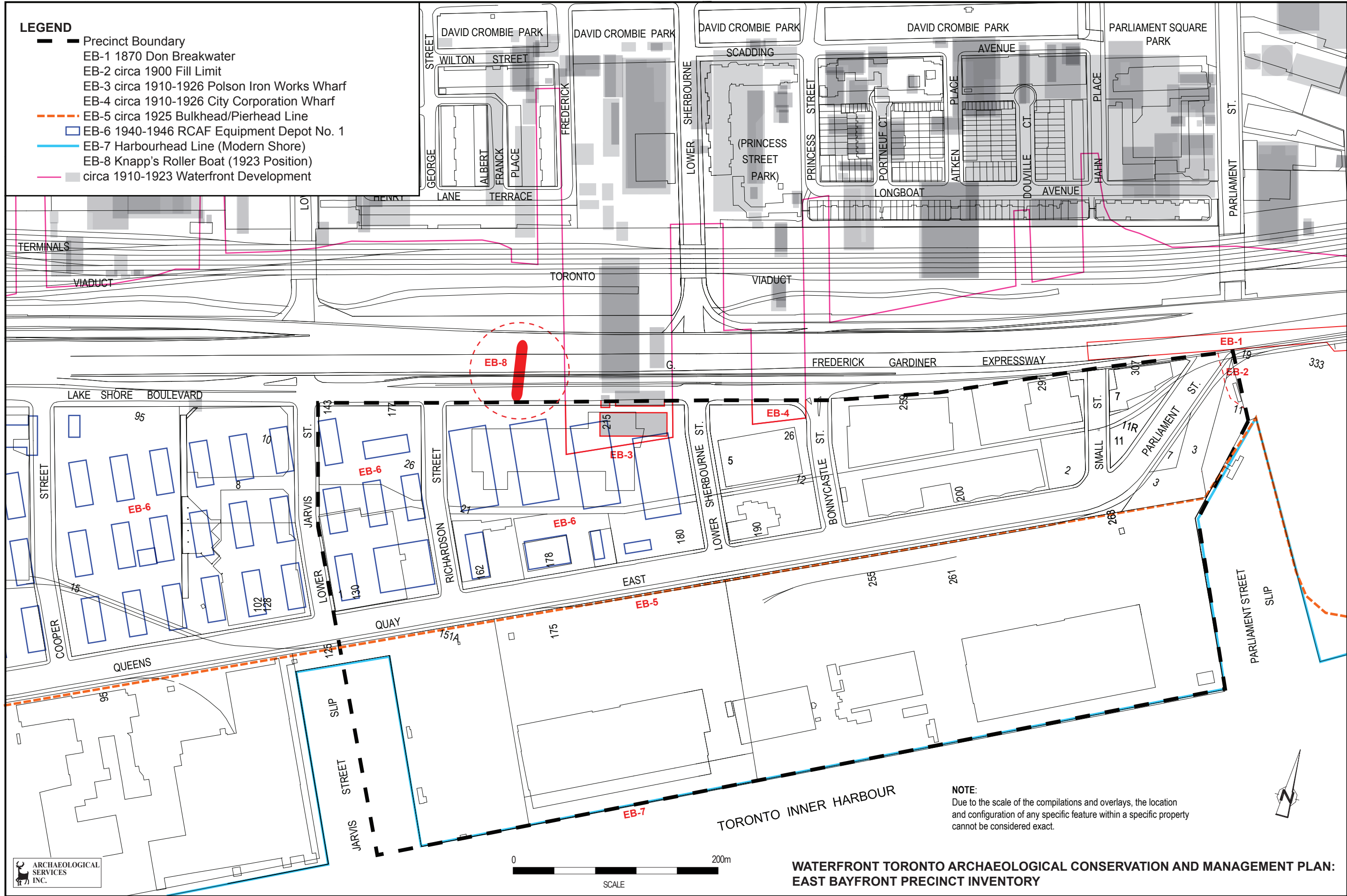
anticipated a huge increase in port activity. The 1912 landfill plan was finally completed when all of East Bayfront south of Queen’s Quay was filled in to the limits defined by the Harbourhead Line in 1952. Marine Terminal 28 was completed in 1958 while Marine Terminal 29 and the Redpath Sugar Refinery opened in 1959. Despite the enthusiasm with which these new developments were completed, ocean shipping never developed as a significant business in Toronto harbour.



City of Toronto Archives, Fonds 1231, f1231_it0976

A 1929 view from the Royal York Hotel showing the progress of filling behind the Pierhead Line, which corresponds to the location of Queen’s Quay Boulevard.

| East Bayfront Archaeological Inventory | | |
|--|---|---|
| No. | Resource/Feature | Description |
| EB-1 (=LDP-1) | Don Breakwater | The head of the 1870 breakwater built at the mouth of Don extends into the northeast corner of the precinct (see the Lower Don and Port Lands Summary Historical Context and Inventory for discussion). The structure was in ruins by 1886. Deeply buried remains may survive, although it is highly unlikely that the cribbing forms a continuous feature. |
| EB-2 | Shoreline Fill Zone | To the immediate south of the head of the Don Breakwater lies a small area of circa 1900 made land associated with the re-engineering the mouth of the Don River. |
| EB-3 | Polson Iron Works | The head of the Polson’s wharf (also known as Wharves 36 and 37) extends approximately 40 metres south of Lakeshore Boulevard into the precinct study area. This portion of the wharf is associated with the expansion of the iron works complex that occurred between 1903 and 1910. Three buildings are shown occupying the extreme end of the wharf on the 1910 <i>Goad’s Atlas</i> . They do not appear on the 1923 edition, by which time the firm had gone bankrupt. The site was cleared and subsumed by lake fill between 1926 and 1928. Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. |
| EB-4 | City Corporation Yard | The head of the City Corporation wharf (also known as Wharves 38 and 39) extends approximately 20 metres south of Lakeshore Boulevard into the precinct study area. This section of the wharf dates between 1903 and 1910. The principal purpose of this facility was to carry street sweepings for dumping at the Toronto Islands. In 1906, the Polson Iron Works purchased this property to expand their shipbuilding facilities. According to available map sources, no structures were located at the extreme end of the wharf. The site was subsumed by lake fill between 1926 and 1928. Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. |
| EB-5 (=CW-11) | Bulkhead/Pierhead Line | Circa 1925 limit of lake fill operations between Yonge and Berkeley Streets. The feature was built using timber piles driven to bedrock and joined by waling and was faced, on the south side, with sheet piling which also extended to bedrock depth. Steel rods that were run to anchor piles on the inland side were used to reinforce the structure (Stinson and Moir (1991). The waters to the south of this structure were filled between the 1930s and 1950s. Substantial portions of the feature may be expected to have survived. It is probable that roughly contemporary secondary fill retaining structures, sewage outfall features, etc. survive to the north of the Bulkhead Line. From an archaeological perspective, none of these features are considered to be of potential high heritage value. This assessment is consistent with the criteria outlined in the Ministry of Culture 2006 Draft Archaeology in Ontario Standards and Guidelines (MCL 2006a). |
| EB-6 (=CW-13) | Royal Canadian Air Force Equipment Depot No. 1. | 1940-1946 military base: see Central Waterfront Summary Historical Context and Inventory for discussion. The majority of the 65 buildings that made up the base were temporary frame-built structures that were removed after the war. Within the East Bayfront, one of the remaining structures was occupied by the Ontario Provincial Police in the 1950s. While subsurface remains of this occupation may survive within portions of the study area, archaeological remains of this period of the precinct’s history are not considered to be of potential high heritage value. This assessment is consistent with the criteria outlined in the Ministry of Culture 2006 Draft Archaeology in Ontario Standards and Guidelines (MCL 2006a). |
| EB-7 | Harbourhead Line | Modern limit of lakefilling operations achieved in the 1950s. Construction involved timber piles, concrete walls and steel anchor rods. A variety of somewhat earlier and roughly contemporary secondary fill retaining structures, sewage outfall features, etc. are likely to have survived to the north of the Harbourhead Line. Occupations established on the newly created lands included Marine Terminals 28 and 29 (demolished circa 1990) and the Redpath Sugar Refinery. From an archaeological perspective, none of these features are considered to be of potential high heritage value. This assessment is consistent with the criteria outlined in the Ministry of Culture 2006 Draft Archaeology in Ontario Standards and Guidelines (MCL 2006a). |
| EB-8 | Knapp’s Roller Boat | Detailed research (see Section 7.6), suggests that the buried remains of Knapp’s Roller Boat lie to the north of the precinct study area, beneath Lakeshore Boulevard and the Gardiner Expressway. Given the reconstructed location of the ship’s remains, the only opportunity for investigation appears to be monitoring of any construction excavations undertaken on adjacent portions of the 215 Lakeshore Boulevard East property during the course of redevelopment. |



7.3 The Lower Don and Port Lands

Summary Historical Context: The Lower Don

The Lower Don precinct in its natural state was an area of shifting channels, small islands, sandbars, and marshland. The sandbar that defined the boundary between Toronto Harbour and Ashbridge's Bay joined the mainland in the vicinity of Cherry Street. A trail from Toronto to the outer sandbar crossed this area, and a few summer cottages and boathouses had begun to appear on maps of the late nineteenth century.

During much of the late nineteenth century, the city spent considerable energy in addressing the issue of silting at the mouth of the Don. In 1870, a long, timber crib breakwater was built on the south side of the river—roughly at the foot of Cherry Street into the harbour to a point below Berkeley Street. By 1878, the *Globe* noted that the Don channel still needed to be frequently dredged. Additionally, although the docks along the Don generated adequate revenue, they were expensive to maintain because of the large volumes of silt carried by the river. Therefore, in 1886 the rotted remains of the breakwater were abandoned, and the following year the City embarked on channelizing the river upstream of the Grand Trunk Railway bridge. No work was undertaken at that time south of the bridge, as it had not yet been decided whether the mouth of the Don should be in the harbour to ease navigation, or in Ashbridge's Bay to take the loading of silt and sewage.

The sewage problem finally drove the City's engineering department, in 1893, to dredge a channel—later known as the Keating Channel—from Toronto harbour to Coatsworth's Cut at the end of Ashbridge's Bay, some 3 1/3 miles in length. Approximately four years later, the Don River was extended south to join this cut in a design intended to produce a current that would flush effluent out of the bay. In addition, land reclamation commenced to expand the small triangle of land between the old Don and the Keating Channel. This seems to have been driven, at least in part, by the dumping of municipal garbage, as the City Engineer's *Annual Report* of 1901 noted the expense of hauling street cleaning and garbage to the marsh due to lack of dumping grounds in the central city. This new land was seen as a good location for factory sites, and by 1913 two concerns—the National Iron Works on the west side of Cherry Street and the British American Oil Co. on the east—were established in the area. While the old mouth of the Don was not filled directly by these processes, it seems to have gradually silted in over time, although it did not disappear totally until the completion of the Harbour Commissions' land

fill operations in 1912. In 1906, the connecting channel was replaced with an alignment to the east, creating a straighter route from the railway bridge.

In spite of these efforts, it appears that the Keating Channel proved to be no more effective than earlier attempts. The 1901 City Engineer's *Report* noted that the east end of the harbour was so filled with debris coming down the Don River that it could not be used for regular navigation. The following year, the Federal Department of Public Works indicated that it would not dredge the harbour until the City did something to stop the flow of debris down the Don into the harbour. This threat galvanized City council to provide funding for interceptor sewers, and a treatment plant on Ashbridge's Bay. This work was completed in 1909. The final changes to the Don River occurred when permanent concrete retaining walls were constructed in both the Keating Channel and Don River by the Harbour Commission in 1914.

The earliest industrial establishment in the Lower Don Lands precinct appears to have been the Toronto Dry Dock Company. By the mid 1870s, shipping interests were promoting a dry dock for Toronto, since at that time the nearest repair facilities were at Port Dalhousie on the Welland Canal, or in Kingston. Therefore, in 1881, a company was formed and obtained a 21-year lease on a plot of land 600 feet by 677 feet on the south side of the Don River, near the foot of Cherry Street. The intent was to construct a dry dock 60 feet wide and 280 feet long, which would have handled any vessel capable of using the Welland or St. Lawrence River canals. Although the dock was to have been completed in 1882, newspaper accounts in 1884 indicated that the works had already been abandoned, as it became apparent that frequent silt deposition made dock operations unfeasible. The company had spent a total of \$26,600 on the dry dock – in 1901, the City contemplated buying the property for \$5,000.

Summary Historical Context: The Port Lands

At the beginning of the nineteenth century, the marsh around Ashbridge's Bay was perceived to be an unhealthy environment, as the source of pestilence and disease. By the late nineteenth century it was a dumping ground for municipal waste and sewage—uses which were incompatible with the growing use of the area for cottages and recreation.

The boundary between Toronto Harbour and Ashbridge's Bay was a narrow sandbar that extended south from the foot of Cherry Street, broken only by the

mouth of the Don River. 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. Since at least the 1830s, a carriage path crossed the Ashbridge's Bay bar, to meet the headland and continued to Gibraltar Point at the western tip of the peninsula. A bridge was constructed across the Don River to enable people from the city to reach Lake Shore Avenue. Until 1852, this headland was a continuous land mass. However, a number of severe storms between 1852 and 1858 eroded the peninsula. This necessitated frequent repair to the small breaches that developed until a storm completely separated the peninsula from the mainland in 1858. This latest breach was not repaired. In fact, it became a new entry point to the harbour, known as the Eastern Gap.

In an earlier time, Fisherman's Island, as the east-west peninsula was later known, was likely used by aboriginal peoples 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) until the mid-nineteenth century storms broke through the peninsula, isolating the Toronto Islands.

Apart from issues related to the dumping of sewage, the main concern with Ashbridge's Bay was its apparent tendency to migrate into Toronto harbour. In 1850, Sanford Fleming determined that 12 hectares had been added to the western section of the sandbars over the previous 50 years. In dealing with these issues, the famous American civil engineer, James Eads, prepared a report on the preservation of the Toronto Harbour in 1881. With regard to Ashbridge's Bay, he recommended that a double row of sheet piling be constructed between the harbour and the sandbar. This project was undertaken, but heavy storms in the spring of 1882 caused such damage to the work in progress that the length of the piling had to be considerably increased. The work was completed over the course of the next year. Eads had also recommended that the Eastern Gap should be made permanently navigable with the construction of breakwaters. This work was completed in 1882 as well.

By the early years of the twentieth century, development on the peninsula was intensifying. Cottages replaced many of the shacks and boathouses of the area's largely transient residents. By 1911, two small foundries were located on either side

of Keating's Channel, and a factory was being built in the middle of the north-south sand spit.

Small-scale fishing enterprises lined some sections of the harbour edge while on the sandbar and outer headland there were two clusters of cottages. Whereas most of the cottages appear to have been built by squatters, about 20 cottages on the outer bar are shown as having been located on surveyed lots that were leased. 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 either were demolished or relocated. This coincided with the Toronto Harbour Commission's lake filling operations.

The largest industrial complex to be developed within the Port Lands area was that of British Forgings Limited, although it was a short-lived operation. It was the first large plant built on the land newly reclaimed from Ashbridge's Bay. It housed the largest electric steel plant in the world, and was constructed in the remarkably short time of six months. Work began in February 1917 on a 127-acre site to build the steel mill to produce forgings from scrap steel for the war effort. Steel production commenced in August and the company produced 9,000 tons per month until the end of the war. The plant closed at the end of the war, but was reopened by the Welsh steel company Baldwins Ltd. in 1919. Although Baldwins added new facilities to the plant, the operation was not successful and the plant was closed again in 1926. It remained abandoned and was dismantled over the following few years.

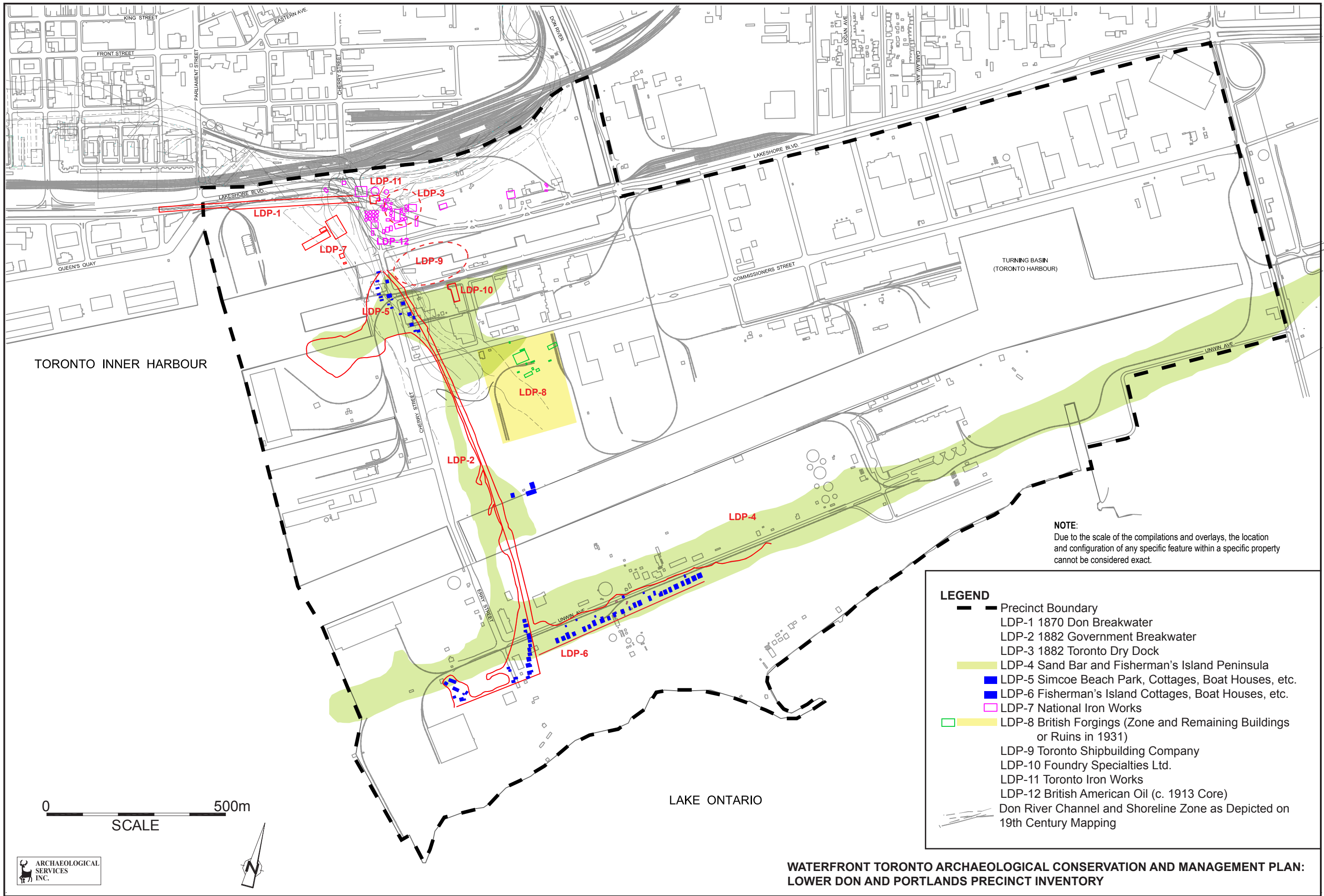
The 1912 waterfront plan had anticipated that warehousing and heavy industry would become the predominant uses of the reclaimed Ashbridge's Bay area and at first, the British Forgings plant seemed to fulfil these expectations for the Lower Don and Port Lands areas. However, between the wars, most of the land was used for storage of fuel and building materials. By 1931, 41 industries operated in the Port Industrial District, but most of the land was physically occupied by coal storage yards. British-American Petroleum, Imperial Oil and McColl-Frontenac established tank farms and oil refineries in the 1920s. However, changes in petroleum marketing dictated that this would be a short-lived industry. The Hearn thermal electric power station, built in 1950, continued the demand for coal storage in the Port Lands. As with East Bayfront, the Harbour Commissioners anticipated a growth in ship traffic in the 1950s and built extensive dock facilities. Water traffic never developed on the scale expected.



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

| Lower Don and Port Lands Archaeological Inventory | | |
|---|--|---|
| No. | Resource/Feature | Description |
| LDP-1 | Don Breakwater | The head of the 1870 breakwater built at the mouth of Don stretches along the north boundary of the precinct. The structure was in ruins by 1886, having rotted to the waterline. Deeply buried remains may survive, although it is highly unlikely that the cribbing forms a continuous feature. |
| LDP-2 | Government Breakwater | Built by the Dominion government in 1882 to prevent the movement of Ashbridge’s Bay into the harbour. The structure consisted of a double row of sheet piling, which served as retaining walls for rock fill. Heavy storms in the spring of 1882 caused such severe damage that the length of the piling had to be considerably increased. The work was completed in 1882-1883. The feature followed a curving line from the Don breakwater to Fisherman’s Island, 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 the hydro lines of the local cottagers. The breakwater regularized a path system that had probably existed since earliest times. 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. In areas, deeply buried remains of the structure may survive within the later fill deposits. |
| LDP-3 | Toronto Dry Dock | The Toronto Dry Dock was planned as a 60 foot wide and 280 foot long facility capable of servicing any vessel using the Welland or St. Lawrence River canals. Although the dock was to have been completed in 1882, newspaper accounts in 1884 indicated that the works had already been abandoned, as it became apparent that frequent silt deposition made dock operations unfeasible. The precise location of the dry dock is not known; lacking the same permanence as a pier most cartographers left it unplotted. Based on its position on the 1896 <i>City of Toronto Ashbridge’s Bay Reclamation Plan...</i> , it is likely located 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. Photographs of the abandoned site appear to indicate that it was built of timber cribs. Portions of the cribbing and other associated features may survive, although the site was heavily redeveloped by the British American Oil Co. |
| LD-4 | Sand Bar and Fisherman’s Island Peninsula | The areas constituting natural features of the sandbar and isthmus may have pre-contact aboriginal potential, although their former location and configuration can only be reconstructed at a general level (not only were massive amounts of fill deposited in the area, but their form fluctuated according to changes in water levels and storm action). The mapped location is therefore only an approximation. Operating against the general identification of these features as being of significant archaeological potential, however, is the possibility that more recent filling and grading activities have destroyed the levels of the sand bar on which any occupations would have occurred. This state of affairs has been documented in the location of the Transitional Sports Fields on the south side of Unwin Avenue (ASI 2007b). Investigation of a five metre wide, 1.5 metre deep stratigraphic profile through the area revealed a variably deep layer of fill (construction rubble, municipal waste in the form of trash and cinders, etc) that overlay a discontinuous horizon of homogeneous sterile sand that was also of variable thickness, but in general was 30-40 cm thick. This in turn rested directly on lakebottom silts and clays. It was concluded that the sand horizon represented the basal portion of the sandbar that would have been submerged below the waters of the lake. Nevertheless the stratum was examined for visual evidence for the formation of any stable ground surfaces. None were noted. Given the substantial downcutting of the feature by modern activities, and the extensive deposition and reworking of imported fills and original soils that had clearly taken place throughout the Transitional Playing Fields property, it was concluded that there was no remaining integrity or archaeological potential (ASI 2007b). The degree to which this determination is applicable to the balance of the sand bar and peninsula features is not known. |
| LDP-5 | Simcoe Beach Park Cottages, Boat Houses, etc. | Small-scale fishing enterprises lined some sections of the harbour edge while on the sand bar and outer headland, there were several clusters of cottages. Whereas most of the cottages appear to have been built by squatters, about 20 cottages on the outer bar (Simcoe Beach) are shown as having been located on surveyed lots that were leased. In the late 1920s, however, the leases were terminated and the cottages were either demolished or relocated. Investigation of the Transitional Sports Field property established that the there was no potential for the survival of any related features, at least in that locale. The photographic record suggests that the cottages were, for the most part, frame buildings built on footings or shallow timber sleepers. Such ephemeral structural elements and any shallow features or deposits in the surrounding properties are unlikely to have survived the impacts of the later filling operations or development activities. |
| LDP-6 | Fisherman’s Island Cottages, Boat Houses, etc. | On the lakefront of Fisherman’s Island was a wide boardwalk, behind which were a number of late nineteenth- and-early twentieth-century cottages. The photographic record suggests that the cottages were, for the most part, frame buildings built on footings or shallow timber sleepers. Such ephemeral structural elements and any shallow features or deposits in the surrounding properties are unlikely to have survived the impacts of the later filling operations or development activities. |
| LDP-7 | National Iron Works | The National Iron Works complex appears on maps by 1910 on lands being created at the former mouth of the Don River. The site, which was acquired by the company from the City in 1909, had been a sandy spit prior to large scale filling. The original facility, which consisted of a large production plant was expanded considerably over subsequent years. All buildings were demolished in the 1980s. Stinson and Moir (1991) noted that the foundations of many of the buildings likely remain buried on the site and recommended that these remains be exposed and preserved for interpretation. This recommendation was reiterated in the 2003 <i>Stage 1 Archaeological Assessment of East Bayfront, West Donlands and Portlands Areas</i> (ASI and HRL 2003), wherein it was noted that such work need not be accompanied by archaeological investigation. |
| LDP-8 | British Forgings | Construction of the plant required that 10 feet of fill be added to the site to raise the grade above the height achieved during the pre-war filling programme. Thousands of foundation piles for the structures were driven eight feet below the finished grade to support the concrete foundations of the buildings. There is an extensive photographic record of the site (Stinson 1990), which vividly conveys the massive size of the steel works, however, mapping of the layout of the complex was not located during this study. A few “ruins” are depicted on the 1931 <i>Goad’s Atlas</i> maps of the area. Stinson (1990) noted that the foundations of many of the buildings remain buried on the site and recommended that these remains be exposed and preserved for interpretation. This recommendation was reiterated in the 2003 <i>Stage 1 Archaeological Assessment of East Bayfront, West Donlands and Portlands Areas</i> (ASI and HRL 2003), wherein it was noted that such work need not be accompanied by archaeological investigation. |

| Lower Don and Port Lands Archaeological Inventory | | |
|---|------------------------------|---|
| No. | Resource/Feature | Description |
| LDP-9 | Toronto Shipbuilding Company | During the First World War, the Toronto Shipbuilding Company established a shipyard on the south side of the Don Diversion Channel. There they built two 3,200 ton wooden-hulled vessels. The site was later taken over by the Milne’s Coal Co. for use as coal storage yards. It may be possible to expose and preserve some remains for interpretation. Such work need not be accompanied by archaeological investigation. |
| LDP-10 | Foundry Specialties Ltd. | The site of one of the two earliest foundries established in the new Port Lands. The firm acquired the property in 1904 and erected a steel shed for their works. This was replaced by a brick structure when the operations were taken over by Queen City Foundry. This new building was destroyed by fire in 1917, but was replaced by an almost identical building under the auspices of Bond Engineering, which occupied the site into the 1960s. The site has since been occupied by a variety of other businesses. The use of the site to the present suggests that discrete archaeological remains associated with the earliest development and operations of the foundry are unlikely to survive. |
| LDP-11 | Toronto Iron Works Ltd. | Founded in 1907, the Toronto Ironworks Ltd. foundry was located on the east side of Cherry Street north of the Keating Channel. The site appears on the 1910 <i>Goads Atlas</i> maps, during which period the buildings multiplied. On the 1931 edition, however, it is noted that the works are “silent.” |
| LDP-12 | British American Oil | The British American Oil Co. was the first of the many refineries that were established in the precinct. The circa 1913 core of the facility has been included within this inventory for this reason. By 1931, the complex had expanded from its original site west as far as Cherry Street. Stinson and Moir (1991) noted that the foundations of many of the buildings likely remain buried on the site and recommended that these remains be exposed and preserved for interpretation. This recommendation was reiterated in the 2003 <i>Stage 1 Archaeological Assessment of East Bayfront, West Donlands and Portlands Areas</i> (ASI and HRL 2003), wherein it was noted that such work need not be accompanied by archaeological investigation |



7.4 The West Don Lands

Summary Historical Context

The study area lands originally formed part of the “Government Reserve” or “Government Park” which encompassed parts of Lot 16 and Park Lots 1 and 2 in Concession 1 from the Bay, in the Township of York. The Park was bounded by the Don River on the east, the marsh and harbour to the south, Parliament Street on the west and Carleton Street to the north. This land was primarily intended as a defensive buffer to shield the town in the event of an attack from the east. The first legislative (Parliament) buildings for the new capital were constructed near the periphery of this reserve, and it was proposed further that the official residence of the lieutenant-governor be erected within “the Park.” The Park was, however, used as a recreational retreat by the early inhabitants of York since the woods were free of heavy underbrush and crossed by a few trails, which were used for walking and riding. Moreover, some residents found this a convenient place for grazing their livestock during the spring and summer. The first “Patent Plan” for York (circa 1800) showed this tract labeled as the “Government Lease.”

Lieutenant Governor Francis Gore proposed that the reserve, which contained 386 acres, be laid out into building lots in December 1810. The survey was completed by Samuel Wilmot by February 1811, laying out the reserve into rectangular lots with roads laid out at right angles from Parliament Street. The Wilmot survey showed that the reserve was crossed by a number of small creeks, and Kingston Road passed over them via two small bridges, while another bridge crossed the Don River. The areas directly below the banks of the Don were labeled as “natural meadow which may be mowed” (Wilmot 1811). The Don River bridge was destroyed by the British during their retreat from York during the battle of April 13. It had been rebuilt by the summer of 1814, and was defended, for the remained of the war, by some earthworks or batteries (Williams 1814).

Wilmot’s original survey was abandoned in favour of a modified plan and new proposal whereby lots were to be sold or leased within the reserve in order to raise money for the support of a much needed hospital. In order to alienate this land it was necessary to patent it to a board of hospital trustees comprised of William Dummer Powell, James Baby and the Rev. John Strachan. This transfer was done by an order-in-council in April, 1819. Christopher Widmer was later added as another trustee. Roughly contemporary plans of the town of York show that this tract of land was undeveloped, the only notable features being a section of the

Kingston Road and a trail or road which extended between the mouth of the Don and the Kingston Road along the east side of Taddle Creek (Phillpotts 1818).

By June 1830, the south end of this reserve had been laid out into lots by surveyor J.G. Chewett. His survey showed that a number of small plots of land had been occupied and fenced in by squatters. A few brickyards were shown in this area, notably on the east side of Trinity Street between Front and Mill streets, and also near the northwest corner of Cherry and Mill streets. The area south of Eastern Avenue was traversed by a number of trails or paths which did not correspond to the formally surveyed street grid, and at least five structures encroached into the southerly limit of Front Street in the block between Trinity and Cherry streets (Chewett 1830).

Much of this land remained undeveloped into the 1830s, and it was gradually surveyed for building purposes by the trustees as the City of Toronto expanded eastward towards the Don River. The Bonnycastle map of 1833 shows the area south of Lot or Queen Street laid out into streets with the remark “recently laid out in streets and now building upon.” The earliest structures were erected along Cherry, Palace and King streets. Perhaps the earliest surviving building within the study area is the Cherry Street Hotel, originally built as a school house in 1859. The upper end of the West Don Lands precinct developed somewhat earlier than the lower end, and King Street contained industrial buildings such as carriage works and small shops and businesses. Both sides of Eastern Avenue remained vacant land throughout much of the nineteenth century, and part of the area was not developed until after 1890 because it formed part of the original channel of the Don River.

The area, in general, consisted of low-lying land, which formed the floodplain of the Don River. This floodplain extended northwards to where King Street meets the river today, and roughly followed the diagonal alignment of King Street on its western edge. This area was considered unhealthy due to its proximity to the marshes at the mouth of the Don River and the dumping of effluent in the adjacent Ashbridge’s Bay. The river carried considerable silt, which clogged the harbour to the south and required ongoing dredging to maintain navigability. As development of the area proceeded, the river was also used as a convenient and inexpensive sewer outfall, which added to the silting of the harbour and to the real and perceived unsanitary character of the marshes. Pollution of the waters was exacerbated after

1872 when Gooderham & Worts opened a vast cattle-feeding operation on the east bank of the Don.

The lands within the study area became more attractive to businesses and for residential purposes following the Don Improvement project in the mid-1880s and in the decades which followed. City Council allocated funds, in 1886, to straighten and deepen the lower Don. The work extended downstream from Winchester Street (approximately where the Canadian Pacific Railway today crosses the Don River, north of Gerrard Street) to the Grand Trunk Railway bridge near the mouth of the river. Improvements within the West Don Lands consisted of removing bends in the river, dredging the channel to 12 feet below lake level, and reinforcing the waterway with timber piling. On either side of the channel, 23 feet was reserved for dock space, 52 feet for railways, and 50 feet for roads. To prevent further flooding, low-lying land adjacent to the river was raised three feet above the lake high-water mark. The bulk of this work was completed in 1887. It seems to have done little good, however, as complaints about the shallowness of the east end of the harbour persisted and, in 1901, the city engineer noted that the reinforcing piles had completely rotted away in many cases, and needed replacing.

Three major industrial concerns played a key role in shaping the development of the West Don Lands. In 1832, James Worts and William Gooderham constructed a mill west of Trinity Street and south of Mill Street on top of a steep bank overlooking a broad beach on what was once the lakeshore (Otto 1994:8). By 1837, Gooderham & Worts were distilling alcohol from surplus and low-grade grain and a building for that purpose was constructed on the west side of Trinity Street. As the business prospered, and technologies changed, more buildings and wharves were added to the complex, which grew to include portions of the study area. These included rack and barrel warehouses on the north side of Mill Street, and a large cooperage for manufacturing new barrels that operated until at least 1890 on the north side of Front Street near Cherry.

Similarly, the Toronto Gas Light & Water Company, which was founded in 1841, established its original building at the foot of Prince’s Street, a block east of the west limits of the study area. This company was purchased by The Consumers’ Gas Company of Toronto following its incorporation in 1848. In 1855, Consumers’ Gas constructed a new gas works on a three-acre site on the east side of Parliament, south of Front Street. This was expanded between 1883 and 1890 to include most of the block of land between Parliament, Trinity, Front and Mill streets as well as

lands west of Parliament, and became known as Station A of the Consumers' Gas Company.

However, the largest industrial land user in the Don Lands precinct was the pork packing plant of the Davies Meat Packing Company. The company established its first slaughterhouse at Front and Frederick streets in 1861, later relocating to a site at the end of Front Street at the Don River. This plant expanded enormously until it occupied most of the property east of Overend Street. In 1927, it became Canada Packers.

In addition, numerous iron-working mills were established in the precinct from a very early date. The first of these may have been the Don Foundry at modern 511 King Street (outside of the precinct), which was in operation by 1853. The St. Lawrence Foundry, established, in 1851, on the block bounded by Berkeley, King, Front and Parliament was another large iron-working mill; in 1873 the company opened a railway car wheel foundry at the northwest corner of Front and Cherry streets, which was sold to the Toronto Car Wheel Company the following year. In 1857, the prominent railway contractor, Casimir Gzowski, in partnership with D.L. Macpherson and the Pomeroy Brothers of Pittsfield, Massachusetts, established the Toronto Rolling Mills at the southwest corner of Mill and Water streets, to re-profile worn rails of the Grand Trunk Railway. Gzowski initially obtained a ten-year contract, which must have been extended since the plant remained open until 1873. Alternatively, the facility may have tried to branch out into other iron products. The building and plant were demolished shortly after its closure.

When Eastern Avenue was developed between St. Lawrence Street and the Don River it became home to businesses connected with the burgeoning city such as lumber yards and paving companies. By the twentieth century, these sites had been partly taken over and had to share their space with scrap metal and paper dealers, and oil and soap manufacturers among others.

Industrial development was soon accompanied by the establishment of railway corridors and yards along the lake shore to the south of the precinct. Rail yards, repair and service shops, and sidings to serve the factories became a prominent feature of the development of the area. The Grand Trunk Railway occupied all the land south of Mill Street to the Don River. Over the years, this area contained cattle yards, a railway shop and the original site of the Don Station, as well as the

company's mainline from Toronto to Montreal. The company also built a wharf along the north bank of the Don, east of Cherry Street, served by a railway spur. By 1910, all of these facilities had been removed, and the area became a local yard and freight sheds for the Grand Trunk Railway. The Grand Trunk Belt Line, built in 1892, turned northward from the mainline at Overend Street. When the mainline was elevated during the viaduct construction of the 1920s, a new connection to the Belt Line was built between the Canada Packers abattoir and the Don River.

Residential development was concentrated north of Mill Street, providing housing for the workers employed by various industries. Many of these people were Irish immigrants from County Cork, leading to the neighbourhood being called Corktown. Originally a low-density mix of industry and workers' cottages, Corktown's population grew and the area was traversed by numerous small laneways that were built to squeeze additional housing into the area. An extensive photographic record undertaken in 1906-1907 by the City documents the poor quality housing that characterized the area. At the other end of the spectrum, both William Gooderham and James Gooderham Worts initially constructed their residences in the area, near their distillery. Worts' stately mansion, Lindenwold, was located on the north side of Mill Street, east of Trinity Street. By circa 1910, it had been demolished and replaced by the distillery's Rack House. Limited foundation remains and a massive rubble layer associated with the demolition of the house were documented during a 1996 assessment (ASI 1996). Gooderham's residence, consisting of the main house and several outbuildings, was located south of Mill Street between Parliament and Trinity. These features gradually disappeared between the 1860s and 1890s to make room for new factory buildings.

The area changed dramatically when the Canadian Pacific and Canadian Northern (today Canadian National) railways acquired permission to use the Don valley and harbour front to build access lines to Union Station. In 1903, the Canadian Pacific

Railway purchased all the housing south of Front and north of the Grand Trunk. In 1905 the Canadian Northern Railway applied to have access to Toronto over the same route, and it purchased the residential and industrial properties bounded by Trinity, Eastern, Olive, and Front in the following year. Thus, within a few years almost all of the land that is today the West Don Lands became railway yards. Together, the two railways purchased and then demolished over 200 houses for about \$500,000. The Canadian Northern also acquired the municipal St. Lawrence Park for about \$14,000.

With completion of the railway yards prior to 1914, the basic pattern of land use within the study area was established for the next 50 years. Railway yards occupied most of the land while Canada Packers and Consumers Gas were the major industrial concerns. Other industries were scattered through the precinct. By the late twentieth century, the transportation and industrial functions of the area declined and much of the land had become derelict.



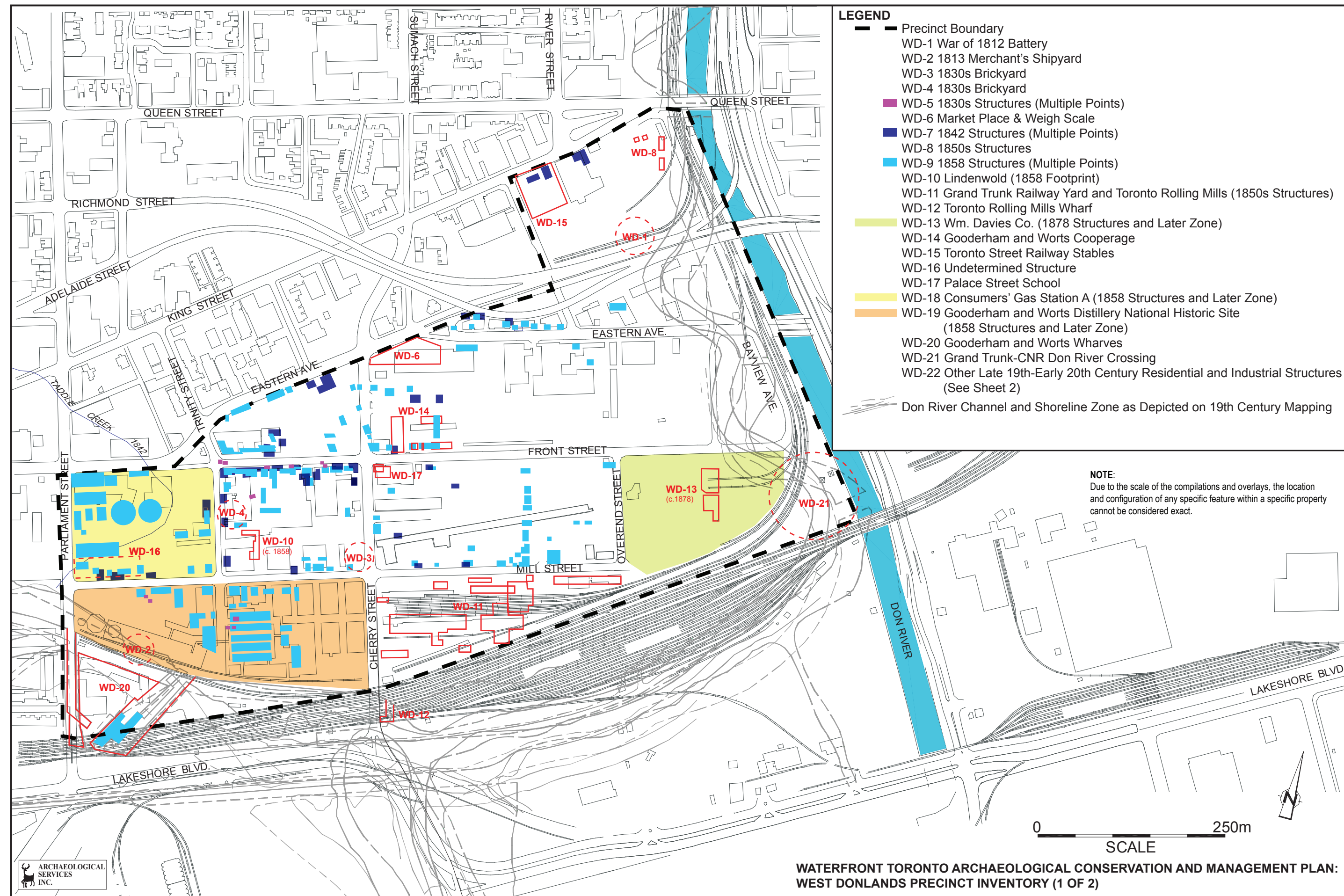
The West Don Lands area as depicted by the 1876 Bird's Eye View of Toronto.

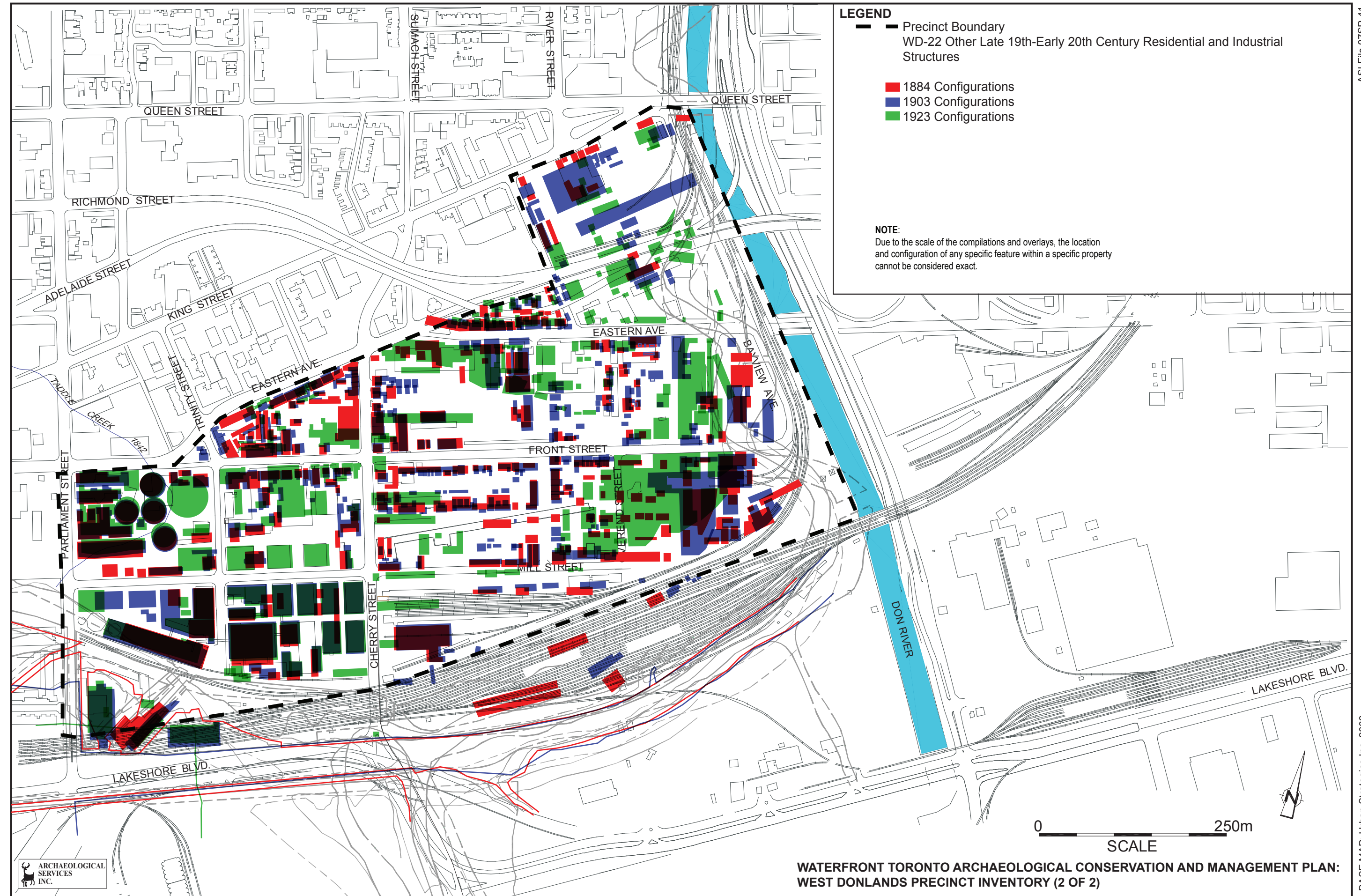
| West Don Lands Archaeological Inventory | | |
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| No. | Resource/Feature | Description |
| WD-1 | War of 1812 “tete-du-Pont” battery | The general location of the southernmost of the pair of flanking batteries that supported the “tete du Pont” earthwork fortifications constructed during the War of 1812 on the east side of the river (Williams 1814). It is not known whether traces of this feature remain in situ, or if they were destroyed by the straightening of the Don River and subsequent developments on the lot. The area appears largely open and undeveloped on the 1876 <i>Bird’s Eye View</i> . By the 1920s the <i>Goad’s Atlas</i> shows use of these lands for storage and stockpiling of material that was loaded and offloaded from a spur line. The area was occupied by industrial concerns between the 1930s and 1950s, as can be seen on the 1931 <i>Goad’s Atlas</i> maps that were revised to 1938 and 1951, which illustrate the appearance of many structures of various sizes and longevity A large structure, built sometime between 1950s and the 1970s but since demolished, covered most of the area, which is otherwise occupied by heavily graded terrain. Based on the land use history of the general area, it was concluded in the <i>Stage 1 Archaeological Resource Assessment of the West Donlands Land Assembly [D60573] Flood Protection Landform, City of Toronto, Ontario</i> that any remains of the “tete-du-Pont” battery, if it was indeed located in this area, have likely been destroyed (ASI 2005). Nevertheless, construction activities associated with the flood protection landform in the immediate area are currently subject to archaeological monitoring. |
| WD-2 | Merchant’s Shipyard | The 1813 Williams plan of Toronto depicts a “Merchant’s Shipyard” on the east shore of Toronto’s bay between the mouths of Taddle Creek and the Don River on the lands later occupied by the Gooderham & Worts Distillery. The feature does not appear on his 1814 plan, suggesting that it was only a temporary war-time facility. It is highly unlikely that physical remains of this feature have survived the long sequence of shoreline reconfigurations in this area. |
| WD-3 | Circa 1830 brickyard | J.G. Chewett’s survey of 1830 shows a brickyard near the northwest corner of Cherry and Mill streets. Typically, short-lived, early nineteenth century brickyards featured few permanent or large scale fixtures. The only traces of these works that may potentially have survived are the quarry pits themselves, assuming they were excavated to any great depth. They would in any case, likely have been filled before later developments took place. This fill would likely be dominated by imported material and debris. |
| WD-4 | Circa 1830 brickyard | J.G. Chewett’s survey of 1830 shows a brickyard on east side of Trinity Street between Front and Mill streets. Typically, short-lived, early-nineteenth-century brickyards featured few permanent or large scale fixtures. The only traces of these works that potentially may have survived are the quarry pits themselves, assuming they were excavated to any great depth. They would in any case, likely have been filled before later developments took place. This fill would likely be dominated by imported material and debris. |
| WD-5 | Circa 1830-1835 residences | J.G. Chewett’s survey of 1830 shows that a number of small plots of land had been occupied and fenced in by squatters along Front Street between Trinity and Cherry streets. These were succeeded by a long sequence of nineteenth and twentieth century residential housing developments as well as later twentieth century commercial developments. In addition to the “squatters” cabins, William Hawkin’s 1835 <i>Plan of building lots ...</i> shows a log cabin partly within the Mill Street road allowance just east of Trinity. Another structure on the southwest corner of Trinity and Mill may be William Gooderham’s house. As outlined in the <i>Stage 1 Archaeological Resource Assessment of the West Donlands Phase 2 Lands (D92037), City of Toronto, Ontario</i> there is no potential for the survival of significant deposits associated with the earliest phases of occupation along this stretch of Front Street (ASI 2006). |
| WD-6 | Market Place and Weigh Scale | The gore or apex of land on the south side of Eastern Avenue, east of Cherry Street and opposite Sumach Street may have functioned as a market place as early as 1834, as it appears on Chewett’s <i>City of Toronto and Liberties</i> map of that year. Among the maps consulted for this study, only the 1880-1890 <i>Goad’s Atlas</i> plates illustrate the configuration of buildings on this plot, which consisted of a series of one-and two-storey frame structures located, for the most part along the peripheries of the market place. The 1880 Goad map also identifies “City Weigh Scales.” After 1890, the market was demolished and replaced by the short-lived St. Lawrence Square Park. This park then disappeared into the morass of railway yards and, later still, became the site of a foundry that still occupies the property. Even though weigh scales were massively-built, it is unlikely that any remains associated with the feature survive, given the repeated and extensive redevelopments in the area, and the character of the current modern structures present on the property. Likewise it is unlikely that any other features associated with the operation of the market remain. These conclusions are consistent with those outlined in the <i>Stage 1 Archaeological Resource Assessment of the West Donlands Phase 2 Lands (D92037), City of Toronto, Ontario</i> (ASI 2006). |
| WD-7 | Circa 1842 Structures | Multiple structures (residential, commercial, small scale industrial) depicted on the 1842 Cane <i>Topographical Plan</i> . Detailed land use histories of the majority of the relevant properties have been compiled during the course of previous archaeological assessments within the West Don Lands (ASI 2004, 2005, 2006). The archaeological potential for the balance of these buildings has been considered at a general level in terms of later land use changes and occupations. In no case is there potential for the survival of significant archaeological deposits or features associated with these occupations. |
| WD-8 | Circa 1850 Structures | Four structures on the south side of the intersection of King and Queen streets adjacent to the Don River depicted on the 1851 Dennis and Fleming <i>Topographical Plan</i> . Two of these buildings face King Street, and two or three structures lay further east directly on the west bank of the river. These buildings do not appear on later mapping. Four structures, each with a detached outbuilding, had been erected in the same general area by 1884. These structures were all cleared from the site between 1903 and 1910. The general location of the 1851 buildings had been re-built upon by 1923. Various spur lines traversed the area as well. Consequently, it was concluded that there was no potential for the survival of significant archaeological deposits or features associated with these occupations (ASI 2006). |
| WD-9 | Circa 1858 Structures | Multiple structures (residential, commercial, small scale industrial) depicted in the 1858 <i>Boultons’ Atlas</i> . Detailed land use histories of the majority of the relevant properties have been compiled during the course of previous archaeological assessments within the West Don Lands (ASI 2004, 2005, 2006). The archaeological potential for the balance of these buildings has been considered at a general level in terms of later land use changes and occupations. In no case is there potential for the survival of significant archaeological deposits or features associated with these occupations. |
| WD-10 | Lindenwold: J.G. Worts Estate | The Worts residence first appears on the 1851 Dennis and Fleming <i>Plan of the City of Toronto</i> . Although it is difficult to discern the house because of all of the trees laid out around it, a rectanguloid structure is identifiable. As the house was not depicted on the 1842 Cane map, a rough date for its construction would be 1842-1851. The elaborate gardens on the lot no doubt were meant to define the estate and to buffer it from the surrounding |

| West Don Lands Archaeological Inventory | | |
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| No. | Resource/Feature | Description |
| | | <p>industrial development. The 1855 Kingsford <i>Plan of the Grand Trunk Railway Right-of-Way</i> shows the layout of the Worts Estate in more detail. It would appear that a rectangular stable was located directly behind the house, and fence lines for the stable/work yard were indicated. Although the 1855 plan indicated that the railway was to extend along Front Street, directly in front of the Worts estate it was in fact relocated further to the south. In the 1858 <i>Boulton Atlas</i>, the Worts house is coloured and numbered to indicate that it was a two storey brick structure. The small stable shown in 1855 had been removed and two new structures were attached to the house, a one storey wood structure, perhaps a summer kitchen or breezeway, and a two-storey, rectangular brick structure, probably a new stable range. The stable and breezeway are shown within the boundary of the stable/work yard, while a rectangular boundary associated with the entrance to the house off Front Street was likely a formal garden. Between 1858 and 1880, the configuration of the Worts estate had changed. As illustrated on the 1880 <i>Goad's Insurance Plan</i>, it appears that two side wings had been added to the original two storey brick house, and the stable range and breezeway had been removed. The house is labelled “to be pulled down,” as it is completely within the industrial complex. Front Street is now labelled Mill Street. Although the 1880 Plan indicated that the Worts estate house was to be destroyed, it was still illustrated on <i>Goad's</i> 2nd edition of 1890, as well as on 1893, 1899 and 1903 revisions. The 1910 edition, however, indicated that the house had been demolished and replaced by the Gooderham & Worts Distillery Rack Houses.</p> <p>A Stage 2 and 3 archaeological assessment of a portion of the Worts residence was undertaken in 1996 (ASI 1996). The primary objective of this work was to determine whether or not the foundations or any other archaeological deposits associated with this mid- to late- nineteenth century occupation had survived the numerous land use changes that have occurred within the area. A test trench was excavated by backhoe throughout the area of the former residence located between Rack Houses D and I. It measured 25 metres in length and two metres in width and was situated in order to traverse the presumed area of the house. Where necessary, this trench was expanded, or shorter lateral trenches were excavated in order to more fully expose the features encountered. In the course of excavations, an extensive brick rubble layer, a number of possible rubble foundation trenches, a small one metre segment of fieldstone wall foundation, a section of iron gas pipe and a portion of a mid-nineteenth century brick cistern were documented (ASI 1996:8-16). The archaeological remains were registered as the Worts Estate (AjGu-35). This portion of the property has since been developed as a condominium tower, which incorporates the rack house. The balance of the house and the stables site are occupied by a modern office building (373 King Street East). Based on the preceding considerations, it was concluded in the <i>Stage 1 Archaeological Resource Assessment of the West Donlands Phase 2 Lands (D92037)</i>, <i>City of Toronto, Ontario</i> that there is no potential for the survival of any additional remains associated with the Worts estate (ASI 2006).</p> |
| WD-11 | Grand Trunk Railway Yard (incl. the Toronto Rolling Mills) | <p>By the 1860s, the Grand Trunk Railway, which became Canadian National Railway, had acquired virtually all the land south of Mill Street to the Don River. Over the years, this area contained cattle yards, frame-constructed freight sheds, a brick-built railway shop and a brick and frame-built station, as well as the company's mainline from Toronto to Montreal. A related facility was the Toronto Rolling Mills, which was in operation between 1857 and 1873, after which time it was demolished. While the mill was furnished with a large steam hammer that would have required massive foundations (ASI and HRL 2004:Figure 5), some vestiges of which may survive, the former site of the operation has been redeveloped numerous times as a result of reconfigurations to the railway yards south of Mill Street. The Grand Trunk station had been demolished by 1884 and by 1910, all of the remaining facilities had been removed or were substantially modified, and the area became a local yard and freight sheds. The Grand Trunk Belt Line, built in 1892, turned northward from the mainline at Overend Street. When the mainline was elevated during the viaduct construction of the 1920s, a new connection to the Belt Line was built between the Canada Packers abattoir and the Don River. The <i>Stage 1 Archaeological Resource Assessment of the West Donlands Phase 2 Lands (D92037)</i>, <i>City of Toronto, Ontario</i> concluded that it is unlikely that significant vestiges of the complex have survived the demolition activities (ASI 2006). Monitoring of excavations undertaken along the Mill Street frontage in the location of one of the structures depicted on 1858-1903 maps confirmed that the area has been thoroughly disturbed.</p> |
| WD-12 | Toronto Rolling Mills Wharf | <p>Small waterfront wharf constructed to service the Toronto Rolling Mills as depicted on the 1862 Browne and Browne <i>Plan of the City of Toronto</i>. It was also intended to reduce silting from the Don River. In this latter capacity it was succeeded by the Don Breakwater in 1870 (see inventory LDP-1). Remnants may survive buried in fill if the structure was not removed during reconfiguration of the Don River channel.</p> |
| WD-13 | Wm. Davies Co. Plant | <p>The Wm. Davies Co. pork packing plant was the largest industrial land user in the precinct, apart from railways. The company established its first slaughterhouse at Front and Frederick streets in 1861, later relocating to the site at the end of Front Street at the Don River. This plant expanded enormously until it occupied most of the property east of Overend Street. In 1927, Wm. Davies Co. merged with several other companies to become Canada Packers. The Don Lands plant was sold shortly thereafter and most of the building demolished. The remaining structures were demolished in the 1990s. Core buildings of the processing plant are depicted on 1878 <i>Historical Atlas</i>. Few traces of these early features are likely to have survived redevelopment and expansion of the plant or its ultimate demolition.</p> <p>A published report of a cemetery on the grounds of the plant (Bliss 1992) standing as a hindrance to expansion of the company's operations on the Don in the early 1900s is erroneous. No cemetery was located in the area. The incident cited by Bliss took place within the context of a proposed merger between the Davies Company and the Harris Abattoir Co., whose plant was located in west Toronto. Part of these plans involved the Davies Company relocating some of their operations to the south of the Western Cattle Market stockyards near the southeast corner of Strachan Avenue and Wellington Street West to the west of Fort York. In order to do so, the Davies Company petitioned the federal government for lands that included the Strachan Avenue Military Burying Ground. The request was denied, in part because of the presence of the cemetery. Ultimately this particular planned merger between the two companies was abandoned and the Davies Company remained on their Don Lands site (ASI 2005).</p> |
| WD-14 | Gooderham & Worts Cooperage | <p>Numerous structures are depicted within this block of land on mid-nineteenth century maps. Those that appear on the 1858 <i>Boulton Atlas</i> are identified as being of frame construction. The <i>Goad's Atlas</i> maps indicated that these lands formed part of the Gooderham & Worts Cooperage complex between 1880 and 1903. The structures included a brick cooper's shop, a brick moulding shop and frame storage and ancillary buildings surrounded by work yards. This site was cleared by the Canadian Northern Ontario Railway between 1903 and 1910, and by 1923, railway sidings, an ice house, and a series of freight transfer sheds owned by the CNR occupied this location. These</p> |

| West Don Lands Archaeological Inventory | | |
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| No. | Resource/Feature | Description |
| | | were demolished over the course of the twentieth century, although a long freight shed survived on the site until 2006-2007. The <i>Stage 1 Archaeological Resource Assessment of the West Donlands Phase 2 Lands (D92037)</i> , <i>City of Toronto, Ontario</i> concluded that it is unlikely that significant vestiges of the cooperage have survived the demolition of the complex (ASI 2006). |
| WD-15 | Toronto Street Railway Co. Stables | The Toronto Street Railway was one of Toronto’s first urban transit services, being granted the first franchise for a street railway by the City in 1861. It came to own a large building plus outdoor storage yard on the south side of King Street at St. Lawrence Street. Along with the Toronto Civic Railways, the Toronto Street Railway Company was acquired by the City, and merged into The Toronto Transportation Commission in 1921. The land use history of this property was previously subject to detailed research (ASI 2005). The first major occupations included circa 1858-1880 commercial establishments (grocery store/hotel). The stable operations began circa 1887. The site was reconfigured by circa 1884, and reconfigured repeatedly 1903-2003. It was concluded that the modern building present on the site was a remnant of the circa 1903-1923 Toronto Railway barn. The building has been demolished. |
| WD-16 | Undetermined Structure | A large structure of indeterminate use is depicted on the very generalized Wadsworth and Unwin map of 1872. The building does not appear on any other map source consulted for this study. As plotted on the 1872 map, the structure spans nearly the entire width of two building lots and encompassed the foot prints of earlier buildings which were likely cleared from the site, assuming the 1872 structure was a real feature. In any case, by the time of the compilation of the 1884 <i>Goad Atlas</i> , the configuration of buildings in this area is sufficiently different to suggest that the these lands had been redeveloped with detached and semi-detached frame structures. These, in turn, were razed by 1893 to make way for a Grand Trunk Railway spur line into the Consumers’ Gas plant. The <i>Stage 1 Archaeological Resource Assessment of the West Donlands Phase 2 Lands (D92037)</i> , <i>City of Toronto, Ontario</i> concluded that it is unlikely that significant vestiges of the nineteenth century occupations in this area have survived (ASI 2006). |
| WD-17 | Palace Street School | In 1857, the land on which the building stands was purchased for use as the Palace Street School, which was designed by Toronto architect Joseph Sheard. Additions were designed for the building by William Irving in 1869. The school continued in operation until at least 1890 when the lot was sold to brewer Robert Davies. In 1890, it was the site of the D’Arcy Hotel. Further additions were designed for the structure by David Roberts Jr. (1890) and Sproatt and Rolph (1891). The building was listed in the City Directory of 1895 as the Cherry Street Hotel. It was vacant in 1900, and it appears to have operated as the Eastern Star Hotel in 1905. In 1906 it was re-named the Cherry Street Hotel. It later became a warehouse, and then the Canary Restaurant in 1965, which is still standing today. The structure is listed in the Inventory of Heritage Properties maintained by the City of Toronto’s Heritage Preservation Services on the basis of its architectural merits. The <i>Stage 1 Archaeological Resource Assessment of the West Donlands Land Assembly [D60573] Flood Protection Landform</i> , <i>City of Toronto, Ontario</i> concluded that the extant building retains elements of the original school within its fabric, however, it is unlikely that significant exterior archaeological deposits dating from the early phases of the occupation have survived subsequent structural alterations and additions. Given the multiple functions of the structure over the past century, no significant research questions concerning the building or its use are likely to be addressed by archaeological investigation of any remaining subsurface deposits exterior to the current building on the property (ASI 2005). |
| WD-18 | Consumers’ Gas Station A | In 1855, Consumers’ Gas constructed a new gas works on a three-acre site on the east side of Parliament, south of Front Street. This was expanded between 1883 and 1890 to include most of the block of land between Parliament, Trinity, Front and Mill streets as well as lands west of Parliament, and became known as Station A of the Consumers’ Gas Company. Five large gas storage tanks stood on the site until at least 1923. As these features entailed the excavation of a deep subsurface pit (Theil 2002:20, 22), it is likely that the construction of these tanks resulted in the removal of any subsurface remains of the earlier occupations. Typically, the soils around these tanks are highly contaminated (Pyne 1989:59, 62). As noted in the <i>Stage 1 Archaeological Resource Assessment of the West Donlands Phase 2 Lands (D92037)</i> , <i>City of Toronto, Ontario</i> , the Consumers Gas A Plant was a major industrial activity, and the main structure has been preserved and reused. The site of the original gas works was extensively rebuilt in 1883-1890. The gas industry is reasonably well documented, as are the post-1883 changes. Although remains of the 1850s gas works would be of interest, they have probably disappeared in the rebuilding. As well, the potential toxicity of the land would make any archaeological investigation a high-risk proposition (ASI 2006). |
| WD-19 | Gooderham & Worts Distillery Complex | Perhaps the most well known industrial activity in the precinct was the Gooderham & Worts Distillery, founded, in 1832, when James Worts and William Gooderham constructed a mill west of Trinity Street and south of Mill Street on top of a steep bank overlooking a broad beach on what was once the lakeshore (Otto 1994:8). The Gooderham Windmill, built in 1832, served as a prominent local landmark, effectively designating the eastern boundary of the city until the 1850s. It also formed one end of the original Windmill Line defining the limit of lakefilling along the waterfront. The foundation of the windmill was documented through an archaeological assessment (ASI 2003). By 1837, Gooderham & Worts were distilling alcohol from surplus and low-grade grain and a building for that purpose was constructed on the west side of Trinity Street. The original distillery burned to the ground in 1842. 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 continued to function). 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. 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. Cattle sheds were moved to the mouth of the Don River to make way for these new land developments. Both William Gooderham and James Gooderham Worts lived on the site for many years. Gooderham’s house is included under this inventory entry. Worts’ house, located outside the present National Historic site is listed separately (WD-10). |

| West Don Lands Archaeological Inventory | | |
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| No. | Resource/Feature | Description |
| | | <p>The only archaeological investigations other than the documentation of the wind mill foundations that have been undertaken in the designated National Historic Site area were limited to a test trench in an area that the heritage planners for the redevelopment of the Distillery District had identified as being of “precontact archaeological potential” along the original nineteenth-century shoreline, as map sources indicated that this locale had never been developed, although it had been used as a junk yard. No intact soils were encountered (ASI 1996).</p> <p>The National Historic Site is not subject to the Waterfront ACMS study. Individual features within the defined site have not been inventoried.</p> |
| WD-20 | Gooderham & Worts Distillery Wharves | <p>Circa 1850-1884 wharves serving the distillery industrial complex. The orientations of the two wharves served to create a triangular basin. By 1855, the east wharf supported a grain elevator and store houses. Test trenches were excavated in 2000 to determine the location of harbour crib walls along the north edge of the basin, south of the stone distillery building in the main Gooderham & Worts complex. A test excavation was also undertaken on a section of cribbing to determine the construction methods (ASI 2000). A complex layout of crib structures exists in the area to the south of the stone distillery. The excavated crib was very roughly built. It seems that a timber structure was used in the lower levels and that a rock embankment was raised above the water level. The test trenches suggest that cribbing ended somewhere in the vicinity of Trinity Street. The character of the shoreline seemed to be at variance with the way the distillery had been depicted in art. All paintings made from the waterfront show a very level and neat crib structure. The reality seems to be a much more crudely built facility, although other sections observed during the redevelopment of the distillery complex entailed the use of much finer carpentry. Additional remains of the shore wall and wharf cribbing may be expected to have survived buried in the later lake fills.</p> |
| WD-21 | Grand Trunk-CNR Crossing | <p>The first, single-track bridge across the Don was completed by the Grand Trunk in 1857. A second track was completed across the river in 1884. An entirely new bridge was completed in 1892. This structure was replaced by the present Canadian National bridge in the 1920s. The 1857 and 1884 bridges were completely replaced by the 1892 structure. The abutment for this later bridge survived until it was demolished in 2006. Several railway structures (signal cabins, water pump, etc.) were located on the east and west bank of the Don until the 1920s grade separation was built. It is unlikely that significant vestiges of these features have survived.</p> |
| WD-22 | Late 19th-early 20th-century Structures | <p>Multiple structures (residential, commercial and industrial) depicted on the 1884-1923 <i>Goad's Atlases</i>. Residential development was concentrated north of Mill Street, providing housing for the workers employed by various industries. There is little potential, however, for the survival of significant archaeological remains associated with the domestic properties. This conclusion is based on consideration of the general type of housing stock within the area, which as can be seen from the City's photographic record, was characterized by frame buildings built on footings or shallow timber sleepers. Such ephemeral structural elements and any shallow features or deposits in the surrounding yards are far more fragile than the more massive structural remains of which only vestiges were found to survive at the less extensively redeveloped site of Lindenwold Estate (WD-10). As later nineteenth century industry developed within the study area, lands held by small owners and proprietors were gradually taken over. Many properties were eventually consolidated within the large tracts of land assembled by larger operations such as the railways and related industries, such as the Dominion Wheel & Foundries, Many of the earlier structures were razed to make space for factories, warehouses and spur lines to service the industries within the West Don Lands. Aside from the major industrial concerns other commercial enterprises in the area included carriage makers, machinists, lumber yards, paving companies, scrap metal and paper dealers, and oil and soap manufacturers, etc. While subsurface remains of the later industrial activities will be ubiquitous throughout the study area, archaeological remains of this period of the precinct's history are not considered to be of potential high heritage value. This assessment is consistent with the criteria outlined in the Ministry of Culture 2006 Draft Archaeology in Ontario Standards and Guidelines (MCL 2006a).</p> |





7.5 Maritime Equipment, Cargo Spills, and Shipwrecks

Previous archaeological projects along the Toronto waterfront have, from time to time, resulted in the documentation of isolated examples of maritime equipment derived from the ships that plied the waters of Lake Ontario. One of the most puzzling of such finds was that of a decommissioned eighteenth-century French cannon recovered from lakefills deposited between approximately 1894 and 1910 in the area now occupied by the Rogers Centre (MPPA 1986). It is possible that the piece had been used as a bollard and/or ship's ballast prior to its disposal (MPPA 1986:10).

The random discovery of items such as the cannon in apparent isolation, or of concentrated deposits of cargo accidentally lost or deliberately discarded during the transfer of goods from ship to shore is possible. The potential locations of any such remains, however, cannot be predicted in any meaningful way.

The remains of at least two ships have been uncovered during previous work along the waterfront. The first of these was a section of a boat keel from circa 1894 fill deposits at the SkyDome/Rogers Centre site. These remains were likely derived from a vessel built circa 1850-1870 (MPPA 1986). The fragmentary nature of the discovery suggested that the remains were likely deposited in the 1890s fill as scrap from the earlier demolition of the vessel (MPPA 1986:9). It is possible that portions of other ships were incorporated within lakefills in a similar manner.

In 1995, the remains of part of a ship were documented during the construction of the Air Canada Centre. The *Commodore Jarvis* was a wooden 109x27 foot, 287 ton twin screw steamer built in 1904 that was burnt in an accidental fire in 1921, stripped of its fittings, and ultimately sunk in 1922, to be buried in lakefill as the waterfront was again extended southwards in the 1920s (ASI 1998). The presence of this ship had been predicted by several previous background research studies (HRL 1989; ASI 1995), as period photography showed the abandoned hulk disappearing under fill. The Knapp's Roller Boat (see section 7.6) met a similar type of fate.

While Toronto's harbour was the scene of numerous shipwrecks, chiefly the result of fires, it is unlikely that any well preserved wrecks are submerged in the waters of the immediate portside areas, as they would have posed unacceptable hazards to navigation. Moreover, the extensive dredging campaigns that were undertaken over

the years to deepen the waters would also have had significant effects. In many parts of the harbour, dredging extended to bedrock. Such work will have destroyed or dispersed any wrecks that may have been present. Fragmentary remains of any such vessels may, however, have been incorporated in the shoreline fills, similar to the occurrence at the SkyDome/Rogers Centre.

7.6 Knapp’s Roller Boat and the Polson’s Iron Works

Introduction

The Knapp’s Roller Boat is the only specifically identified feature within the inventory that represents a “mobile” resource For this reason, particular effort has been devoted to reconstructing the likely final resting place of the vessel.

Polson’s Iron Works

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 Polson’s Iron Works, located between Frederick and Sherbourne streets from The Esplanade to just south of the current alignment of Lakeshore Boulevard (Figure 7.6.1).

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 firm 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 from Georgian Bay to the shore of Lake Ontario. The 1893 and 1903 Goad’s maps show the configuration of the site on two 430 foot (130 metre) wharves separated from one another by a slip. By 1907, the yards employed around 500 men. The *Goad’s Atlas* of 1910 shows an expanded and reorganized complex on a single wharf that took

almost all of the shore between Frederick and Sherbourne and stretched from the rail lines of the Esplanade south approximately 1,050 feet (320 metres) into the harbour. These changes reflect, in part, the 1906 acquisition of the municipal wharf to the east of Frederick Street, the principal purpose of which had been to handle the transfer of street sweepings for dumping at the Toronto Islands.

The Polson Iron Works operation 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.

At first, business was steady, 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

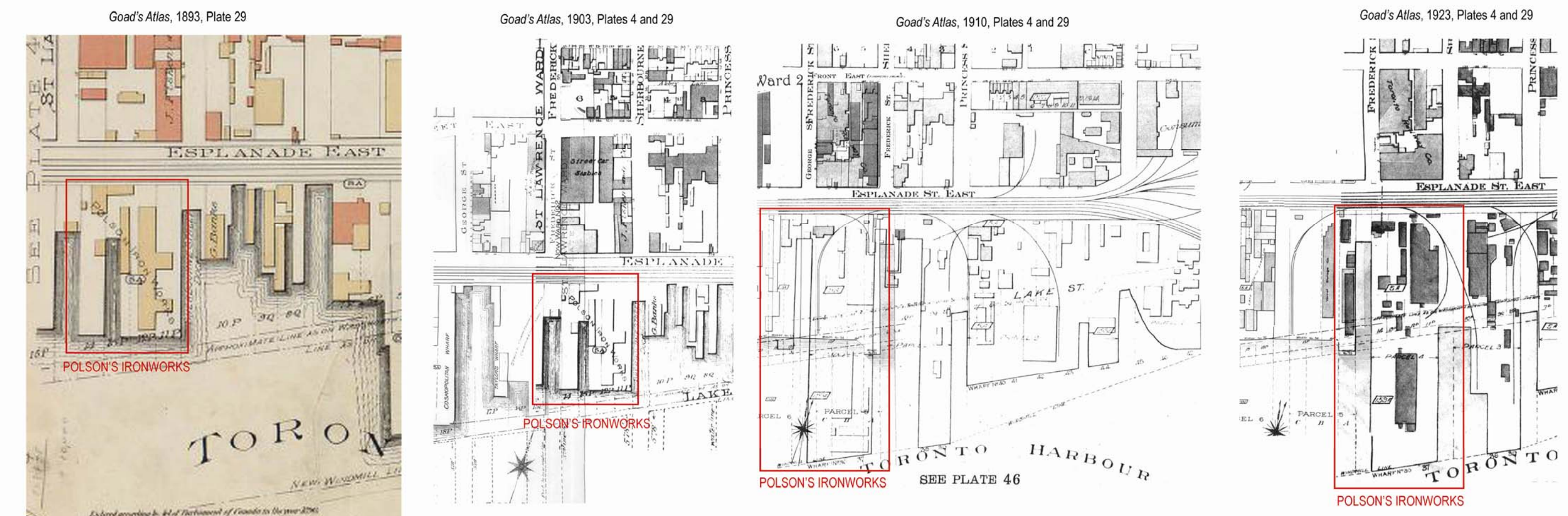


Figure 7.6.1: The changing configuration of Polson’s Iron Works as reflected in the Goad’s atlases.

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). Much of the property lay dormant until the buildings were demolished and the site was subsumed by lake fill, mainly sand dredged from the harbour, between 1926 and 1928. Ironically, two of the dredges used in this operation, the *Cyclone* and *Tornado* had been built at the shipyard (Stinson and Moir 1991).

As noted in Section 7.2, the only portion of the Polson complex that falls within the ACMS study area is a roughly 40 metre long stretch that made up the extreme head of the wharf, and a short-lived building that stood on its surface circa 1910. Any remains within the study area other than the foundation cribs (that is those parts below the former waterline) are unlikely to have survived later developments, such as the existing building at 215 Lakeshore Boulevard East, the construction of which will have included driving hundreds of piles to bedrock. There is, however, greater potential for the survival of those portions of the site located north of the road and rail corridors, between Lower Sherbourne and Frederick Streets.

Knapp’s Roller Boat

Polson’s is perhaps best remembered for building the experimental “Knapp’s Roller Boat.” This unique cylindrical ship, designed by Prescott lawyer Frederick Knapp, was launched in 1897.

Knapp’s Roller Boat has been described by one writer as perhaps the “most exotic Canadian invention ever conceived” (Peacock 1995b:36). This unique ship has been ordinarily referred to as Knapp’s Roller Boat, but it was also named “Knapp’s Barrel Boat” and derisively called “Knapp’s Folly” by the press of 1899 (Anonymous, *Mail and Empire*, January 16, 1899).

The vessel was the invention of Frederick Augustus Knapp (1854-1942) of Prescott, Ontario. Knapp was the son of VanRensselaer Knapp (1819-1890) and his wife Amelia Spencer (1828-1878), the descendants of two Loyalist farming families who had settled in Augusta Township in Grenville County, in eastern Ontario.⁷

⁷ Knapp appears to have been unrelated to the family of James and William Knapp, who were boat builders at Green Bay on Howe Island in Pittsburgh Township, just east of Kingston, Ontario, during the early 1870s (Patterson 1989:94).

Knapp was educated at McGill University, and was a lawyer by profession and a hobbyist inventor (Peacock 1995b:33). It is unclear as to when, or how, Knapp became interested in the idea of the construction of this boat. It has been suggested that Knapp’s idea sprang from his admiration for Queen Victoria:

It was a well-known fact that his queen refused to travel great distances by boat because of her predisposition to sea sickness. Now, if Knapp could invent a vessel that precluded the motions that brought on this distress, Her Majesty would agree to cross the Atlantic and pay a visit to her dominion in North America. While in Canada, she would no doubt request an audience with this remarkable boat’s inventor. There could even be a knighthood in it for Knapp (Shaver 2007).

It is known that the basic idea for a Roller Boat was originally developed by an inventor named C. Baillairge in Quebec in the early 1850s. The plans for this vessel, known as “Baillairge’s Marine Revolving Steam Express,” were exhibited at the New York World’s Fair of 1853 where it did not attract much attention “on account of its coming from such an end-of-the-world sort of place as Quebec” (Baillairge 1897:166). The idea was again taken up by a Messr. Bazin in France during the 1890s. This craft also proved to be unsuccessful during its sea trials, mainly due to engines of insufficient power. Bazins’ ship only made a top speed of six or seven knots per hour instead of the expected thirty knots. A second cylindrical boat, invented by a Canadian named Charbonneau, was under construction at Montreal at the same time when Knapp’s boat was on the stocks in Toronto (Anonymous, *Canadian Engineer* 3 1897:73).

Knapp made a prototype of his invention which worked satisfactorily, and he estimated that a proportionally full-sized boat could achieve 200 miles per hour. Knapp made a scale model of his invention which he took with him to Glasgow. Unfortunately, naval architects and industrialists there did not provide him with the necessary funding to construct his ship. In early 1897, an Ottawa financier named George Goodwin provided Knapp with \$25,000 for the construction of the first roller boat. Sometime during October of that year, Knapp received additional funding from the “Great Farini” who purchased an interest in any future company that Knapp might establish connected with the Roller Boat. By 1907, Farini owned a 15% interest in Knapp’s invention and companies (Peacock 1995a:398, 401, 407; 1995b:33).

The “Great Farini” or Guillermo Antonio Farini was actually the stage name of William Hunt (1838-1928), who was born in Bowmanville. During his youth he displayed great feats of athleticism and daring. In the 1870s, he thrilled audiences with a tight-rope walk across the Niagara Gorge, much as Blondin had done during the late 1850s and early 1860s. Farini later went on to greater fame as the “Human Cannonball” in the Greatest Show on Earth. In later life, he became an explorer, author, botanist, painter and inventor. It has been suggested that Farini helped to redesign the Roller Boat and provided more powerful steam engines for the ship. He undoubtedly invested heavily in this enterprise, possibly as much as \$125,000, and he later acquired large blocks of company shares from Knapp in 1905. Between 1905 and 1907, Farini obtained British, Canadian and American patents for a tubular shaped boat, similar in design to the modified Roller Boat, which was strengthened with interior beams (Peacock 1995a:400, 406-407). The ship itself (Figures 7.6.2 and 7.6.3) was an annular cylinder, made out of steel rings and heavy boiler plate, approximately 110 feet long and 22 feet in diameter. Each end tapered to a 12 foot width, which encased a 12 foot diameter inner cylinder. There was five feet of space between the inner and outer cylinders. Two, 150 horse-power steam engines and their boilers were located at either end of the

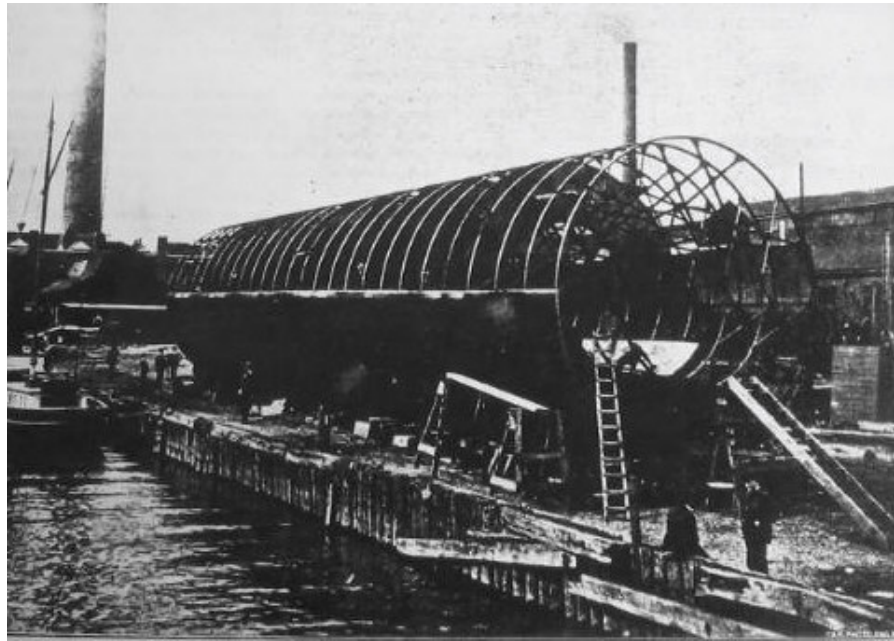


Figure 7.6.2: The Roller Boat under construction at Polson’s Iron Works during the summer of 1897.

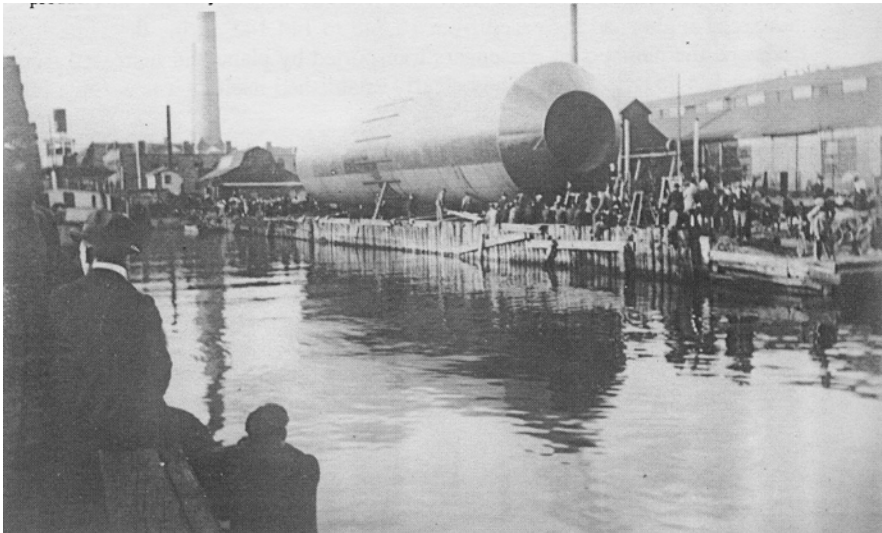


Figure 7.6.3: The launching of Knapp's Roller Boat from the ways of Polson's Iron Works, September, 1897.

ship on a 15 ton weighted platform.⁸ These engines powered a driving wheel which caused the outer shell of the ship to revolve. The engines, platform and inner cylinder were mounted on four separate driving wheels which kept them in a horizontal position and did not turn with the boat. Paddles about one foot in width were riveted to the exterior of the hull which assisted to propel the ship through the waves, although the drum was largely driven through the inertia of its own weight, which was an estimated 15,000 tons. A system of chains and rudders, or a lee board principal, was used as a steering mechanism at either end of the craft. Unfortunately for the engineers, the ship was steered from the unprotected, open ends of the craft which would have been unpleasant during stormy weather. The principal idea behind the ship was metaphorically compared to that of a squirrel which “might turn the cylinder in its cage” (Anonymous, *Canadian Engineer* 3 1897:73). Knapp hoped that under favourable conditions, this prototype would travel at the rate of one mile per minute on Lake Ontario.

The ship was built on Toronto's lakeshore at the Polson Iron Works between Frederick and Sherbourne streets during the spring and summer of 1897. A photograph published in the *Canadian Engineer* magazine showed the ship under construction that year. One of the weaknesses inherent in Knapp's design was the lack of space available for passengers and crew, cargo and fuel storage. This shortcoming, which later haunted the inventor, was pointed out by the *Canadian*

Engineer 3 (1897:73). Knapp responded with his belief that less fuel was required by his design since the inertia of motion would keep the ship rolling over the waves. There were fears regarding the performance of the ship in rough weather:

It seems ungracious to have to discourage a thing before its trial, but it is to be feared that Mr. Knapp has not made any mathematical calculations of the enormous force of a gale acting on the broadside of so large a drum elevated so largely out of the water, and he has evidently not considered that though his engines are to be 150 horse-power, their effective power will be limited to a proportion of their weight plus that of the framework, etc., in which they are set (Anonymous, *Canadian Engineer* 3 1897:73).

It was also noted that although each engine ran separately, if one failed it would effect the performance of the other engine and, consequently, that of the entire ship. In short, the Roller Boat “was doomed because it had no practical features” (Taws 1991).

The Roller Boat was launched into the harbour at the Polson Iron Works on September 8, 1897, but it did not take its maiden voyage until several weeks later on October 21st (Taws 1991). We know that those on board the Roller Board during this historic event included Knapp himself, G.A. Farini, the engineer Mr. Robinson, a shareholder named Mr. Serens and A.H. Jeffrey, who was an employee of the Polson Iron Works (“Knapp's Roller Boat,” undated newspaper clipping; Peacock 1995b). On that first trial, the Roller Boat only achieved seven revolutions per minute. Although Knapp claimed that the vessel attained a speed of six miles per hour, eyewitnesses calculated it at half that rate, or three miles per hour. Afterwards, the paddles on the exterior were extended and a second trial in April 1898 produced a slightly faster speed (Anonymous, *Canadian Engineer* 7 1897:192; Peacock 1995b:33).

During all of the ensuing year 1898, the Roller Boat remained moored in Toronto Harbour. The reasons for this are unclear, although it is not unreasonable to suppose that during this time Knapp was engaged in the process of redesigning the ship and possibly searching for additional financial backers. It was during this period that Knapp established a joint stock company known as the “Knapp Ocean Navigation Company Limited” (Peacock 1995a:403). One of the design changes

may have included reverting to Knapp's original plan for a single engine to be mounted in the centre of the vessel.

During the Spanish-American War, which was fought during the spring and summer of 1898, Knapp proposed to construct a roller boat large enough to carry 30,000 troops and equipment between Florida and Cuba. “This action would ensure a victory over the Spanish troops who occupied the island and help in the liberation of Cuba” (Shaver 2007). These plans did not materialize.

During the late spring of 1899, Knapp decided to take the Roller Boat to Prescott where the design was to have been modified. Thereafter, it was hoped that the vessel would be used as an international ferry across the St. Lawrence River between Prescott and Ogdensburg, New York. The Roller Boat embarked on this voyage on June 9th, but unfortunately the steering mechanism malfunctioned and the ship ran out of fuel about 15 miles off shore at Pickering, near Frenchman's Bay. Knapp and Farnini were obliged to row into Pickering for coal and then back out to the boat. The ship was restarted and managed to sail as far as Mann's Point or Raby Point off Port Darlington near Bowmanville, where it ran aground again a few days later on June 12th. There the ship was moored to a tree until Knapp arranged to have it towed to Prescott by the Kingston Wrecking Company for its refitting (Peacock 1995a:404; 1995b:36; Taws 1991).

Knapp's Tubular Boat

On September 26, 1902, the *Mail and Empire* reported that the former Roller Boat had arrived at the Brockville dock, after covering twelve miles in three hours (Anonymous, *Mail and Empire*, 1902). The design of the ship had been modified and the “roller boat” element eliminated so that it sailed like a regular ship (Figure 7.6.4). The over-all length was extended to 118 feet, with a diameter of 22 or 23 feet. The single engine had been removed from the centre of the ship to the stern, with a single screw propeller and steering gear. The space between the inner and outer hull had been divided into compartments for carrying from between 700 to 800 tons of freight. It was described as resembling a “whaleback” or “pontoon.” Knapp estimated that it would cost about \$12,000 to construct what was then referred to as “Knapp's Tubular Boat.” Plans were afoot to sail the vessel to Sydney, Nova Scotia, “where the projector of his barge system is trying to start a shipbuilding industry to manufacture these freight barges.”

⁸ Originally Knapp had wanted to place a single engine in the centre of the ship, but engineers persuaded him to alter his design and place two engines at either end (Peacock 1995b:33).

It appears that the Tubular Boat remained moored for an entire season along the St. Lawrence, but in August 1904 it was towed back to Toronto. There, the design of the ship was to have been modified yet again at Bertram's Shipyard Docks. The vessel "is rather a dilapidated looking craft. Her plates are rusty in spots, while her engines look rather the worse for her long idleness." She was to have twin screws installed and the ends enclosed in steel. Part of the hull was to be opened up, with a deck and pilot houses built at the bow. "The accommodations for her officers and crew will be in the dome of the cylinder" (Anonymous, *Daily Star*, August 10, 1904; Peacock 1995a:406).

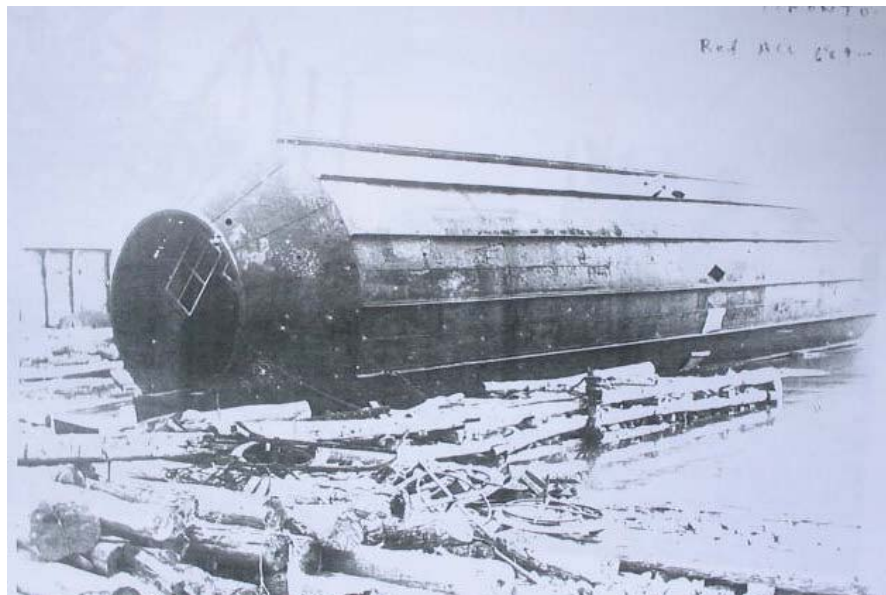


Figure 7.6.4: The Roller Boat undergoing renovations, possibly those of 1902. Note the exterior paddles had been extended along the entire length of the hull, although by 1902 the roller function was abandoned.

It is unclear as to where the Tubular Boat sailed during the next few years, although the newspapers reported that she successfully ran the Lachine Rapids and made several trips to Montreal. It was brought back to Toronto from Kingston in the autumn of 1906, where the ship was again radically reconstructed. The new Tubular Boat measured 242 feet long and was given a "cigar" or "pig nose" (Figure 7.6.5) The lower plates were made of heavier gauge than the upper ones, and cement was poured into her for ballast. This was thought to enable her to "cut through the roughest weather without a roll" at an expected 14 knots an hour. The reporter noted that she "looks like a long tub as she lies at the Polson Iron Works docks." The refurbishing would cost an estimated \$45,000, and she was expected to

transport either coal for the Eastern Coal Company or oil between Lake Erie ports via the Welland Canal and Toronto (Anonymous, *Evening Telegram*, July 6, 1907).

It was later reported that the vessel "never carried freight out of the Port of Toronto. With but an occasional lonely ramble around the Bay on dark and stormy nights, she lay at Polson's dock until 1908" ("Knapp's Roller Boat," undated newspaper clipping).

Sometime in 1908, the Tubular Boat collided with a laker named the *Turbinia*, which caused an estimated \$250 in damages. On November 25th of that year, the Tubular Boat was sold at auction for \$595 to pay for these damages. The fittings were sold for \$295 and the hull for \$300, a mere fraction of the total building and refurbishing costs of the original Roller Boat (Anonymous, *Evening Telegram*, November 25, 1908; Peacock 1995a:408).

It has been erroneously reported that Knapp's boat sank in 1908, and was then scrapped for the war effort during the First World War (Taws 1991).

Correspondence from the Polson Iron Works stated that while at their docks for repairs "she broke loose and drifted to the Toronto Electric Light dock where she was tied up." This business was located on the lakeshore at the foot of Church Street. "From there she broke away and drifted to her present position," which was partly on the Polson property and partly on that of the Canadian Pacific Railway. Polson's Iron Works claimed that since the vessel was "in the hands of the Admiralty Court, we have therefore nothing whatever to do with this boat." The manager of Polson's further requested that the Harbour Commissioners remove the

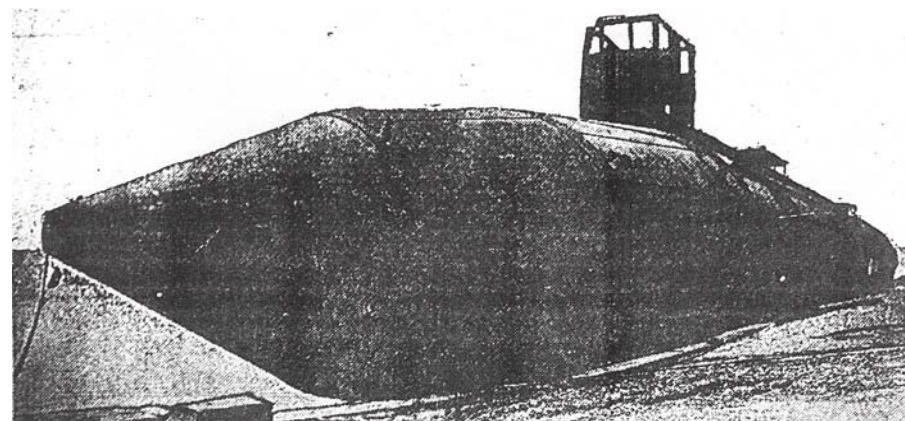


Figure 7.6.5: The remodelled boat in 1907.

boat since "we intend to launch a big car ferry early this spring and are afraid that the suction will either draw the roller boat into the deep cut to the east of her and damage the car ferry, or block the channel." The Commissioners concluded that since the boat was in Polson's charge, "I cannot see that it devolves upon the Harbor Commissioners to undertake to have it removed" (Polson 1915).

Photographs were taken of the Roller Boat or Tubular Boat where she lay at the Polson Iron Works dock in September-October 1914 (Figures 7.6.6 and 7.6.7) and again in September-October 1915. The Tubular Boat is clearly shown along side the car ferry *Ontario* in a photograph taken on September 22, 1915 (Figure 7.6.8).

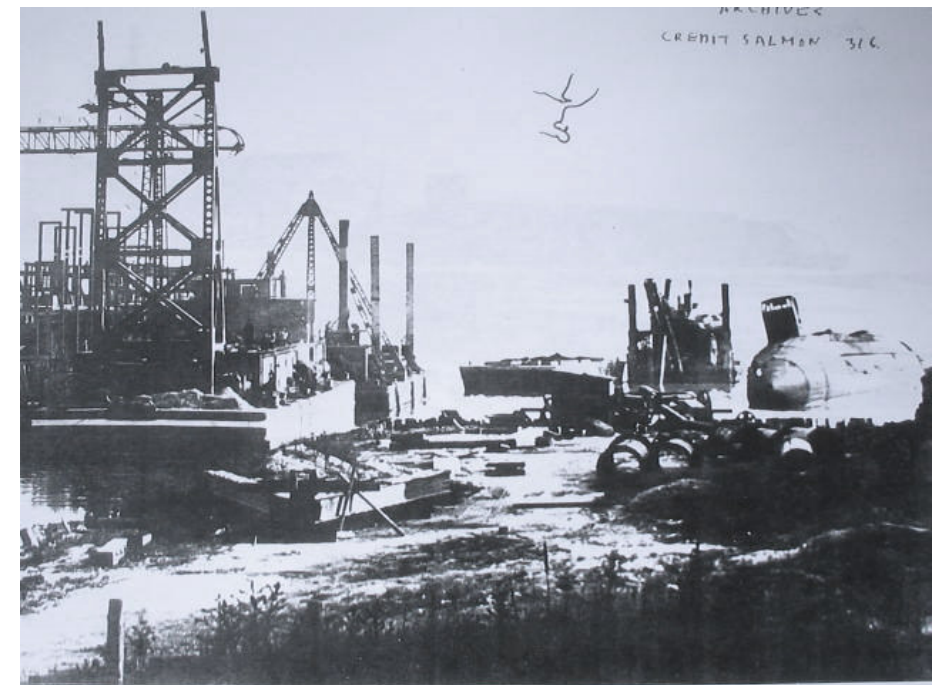


Figure 7.6.6: Knapp's Roller Boat in the Frederick Street Slip, viewed from the shore, September 1914.

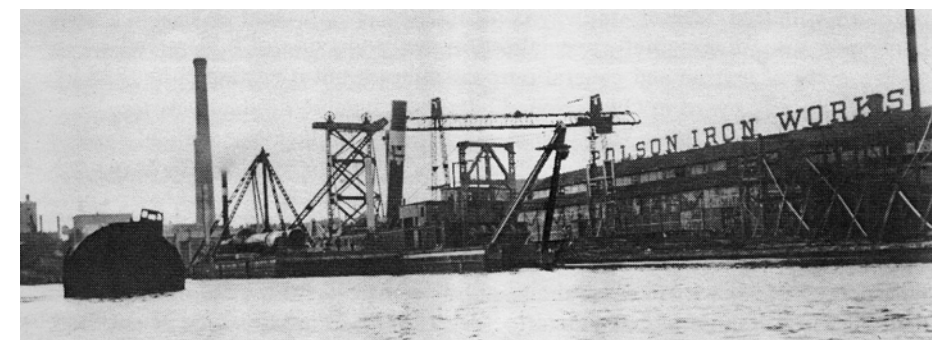


Figure 7.6.7: Knapp's Roller Boat in the Frederick Street Slip, viewed from the lake, September 1914.

Following the impasse with the Harbour Commissioners, the Tubular Boat remained moored off in the shallow waters off the end of the Frederick Street slip for another decade. Oblique aerial views of Toronto Harbour taken by McCarthy Aero Services circa 1921 clearly showed the Tubular Boat moored opposite the Polson Iron Works. It was situated off the end of the Frederick Street slip, approximately two-thirds of the way along the length of the Polson’s wharf (McCarthy 1921). A plan of the harbour, taken in April 1923, showed the vessel lying in water which varied from between 7 to 14.8 feet in depth at the bow, and 15.7 to 15.9 feet at the stern.



Figure 7.6.8: Photo taken September 1915, showing the Roller Boat moored beside/in front of the car carrier *Ontario*. This larger ship was the subject of the 1915 correspondence between Polson’s and the Harbour Commissioners.

The Final Resting Place of Knapp’s Vessel

The final resting place for the Roller Boat has been debated for a number of years. Most people who have looked into the question agree that she lies somewhere along the harbour front, but the location has varied between as many sites as those to which she drifted during her years of abandonment. Some have placed the location at or near the ends of either the Frederick or Sherbourne Street slips, while others have argued that she was deeply buried beneath the railway viaduct which was constructed during the late 1920s and early 1930s. Still others have stated that the Harbour Commissioners considered the roller boat a “serious impediment to

harbour traffic” (Filey 1981) and paid to have her hull dragged to the foot of Parliament Street where she was buried in the lakefill.

In August 1981, *Toronto Sun* columnist Mike Filey surmised that she was buried close to or beneath the Gardiner Expressway: “Rumor has it that when the Gardiner Expressway was being built it was necessary to make a slight detour in the routing when one of the footings being sunk for the overhead roadway struck the old hulk, forcing a repositioning of the support” (Filey 1981). Filey, however, did not disclose the specific location of the remains if it was known to him.

Evidence shows that when the Toronto Harbor Commissioners began to extend the lands along the lakeshore beyond the Windmill Line during the 1920s, the Tubular Boat remained in situ and was gradually buried in the sand which was dredged up from the lake bottom. Photographs taken on May 28th (Figure 7.6.9) and August 11, 1927 (Figure 7.6.10) clearly show the beached remains of the ship in shallow water with an ever-encroaching shoreline (PC1/1/7375, PC1/1/7455). By April 18, 1928, a final photograph (Figure 7.6.11) shows the remains of the boat nearly completely buried in the dredged fill material. The appearance of the boat in this photograph seems to indicate that some of her exterior plating and superstructure may have been stripped from her before she finally disappeared from view in the fill (PC1/1/7810). The evidence provided on the Toronto Harbour Commissioners survey map of April 1923 (Figure 7.6.12), provides scaled measurements, which are consistent with the views in the final photographs of the ship. This makes it possible to pinpoint the present location of the centre point of “Knapp’s Folly” with some accuracy. The remains of this unusual ship lie buried 356 feet (108.5m) south of the Frederick Street slip and 140 feet (42.7m) west of the Polson Iron Works dock (wharfs 35 and 36) as they existed in 1923.⁹ Today, this location corresponds to the area between Lakeshore Boulevard and the Gardiner Expressway, between Richardson and Lower Sherbourne Streets and north of the property currently known as 215 Lakeshore Boulevard East (Figure 7.6.13). Placement of the vessel under these roads is generally consistent with that proposed earlier by Sinson and Moir (1991:112). According to City of Toronto records, this area is traversed by a large number of service lines including a 300mm sanitary sewer, a 1050mm storm sewer, a 2100mm filtered water main, and two 500mm gas mains, one of which is abandoned (David Spittal, City of Toronto,

⁹ This is the part of the harbour lying south of wharfs 44 and 45 (*Goad’s Atlas* 1880) and water lot parcels 14 and 15 (*Goad’s Atlas* 1884-1903 editions).

personal communication, 2007). This suggests that the integrity of the vessel, assuming it has survived construction of the Gardiner Expressway and Lakeshore Boulevard, is highly compromised.



Figure 7.6.9: The view west from Sherbourne Street, May 1927.



Figure 7.6.10: The view west from Sherbourne Street, August 1927.



Figure 7.6.11: The view west from Sherbourne Street, April 1928. It appears that many elements of the upper hull have been stripped.

The potential depth at which any remains may be located is also an important consideration. Historic documentation from the late nineteenth-early twentieth century indicates that Lake Ontario’s water levels varied from a low annual mean level of 74.1 metres ASL in 1895 to a high annual mean of 75.8 metres ASL in 1870 (HHI 1994:75). The present mean annual lake level is 75.2 metres ASL

there has been little overall change during the intervening period. The April 1923 Toronto Harbour Commission plan showed the vessel lying in water which varied from between 7 to 14.8 feet (2.1-4.5 metres) in depth at the bow, and 15.7 to 15.9 feet (4.8 metres) at the stern. The current grade in the vicinity of the boat has an average elevation of approximately 77 metres ASL, suggesting that the lakebed surface on which the boat rests is buried by approximately 13 to 23 feet (3.9-7.0 metres) of fill.

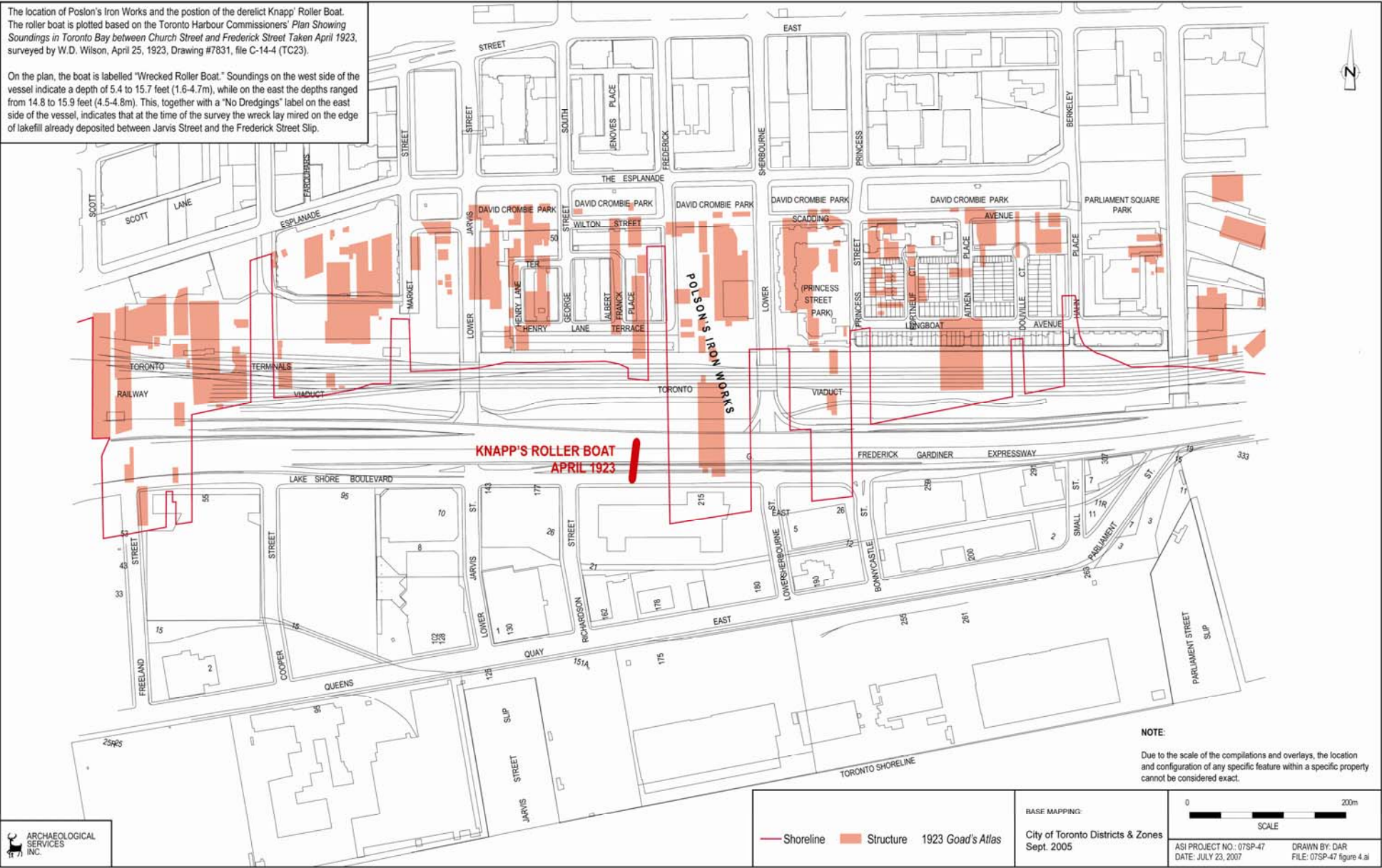
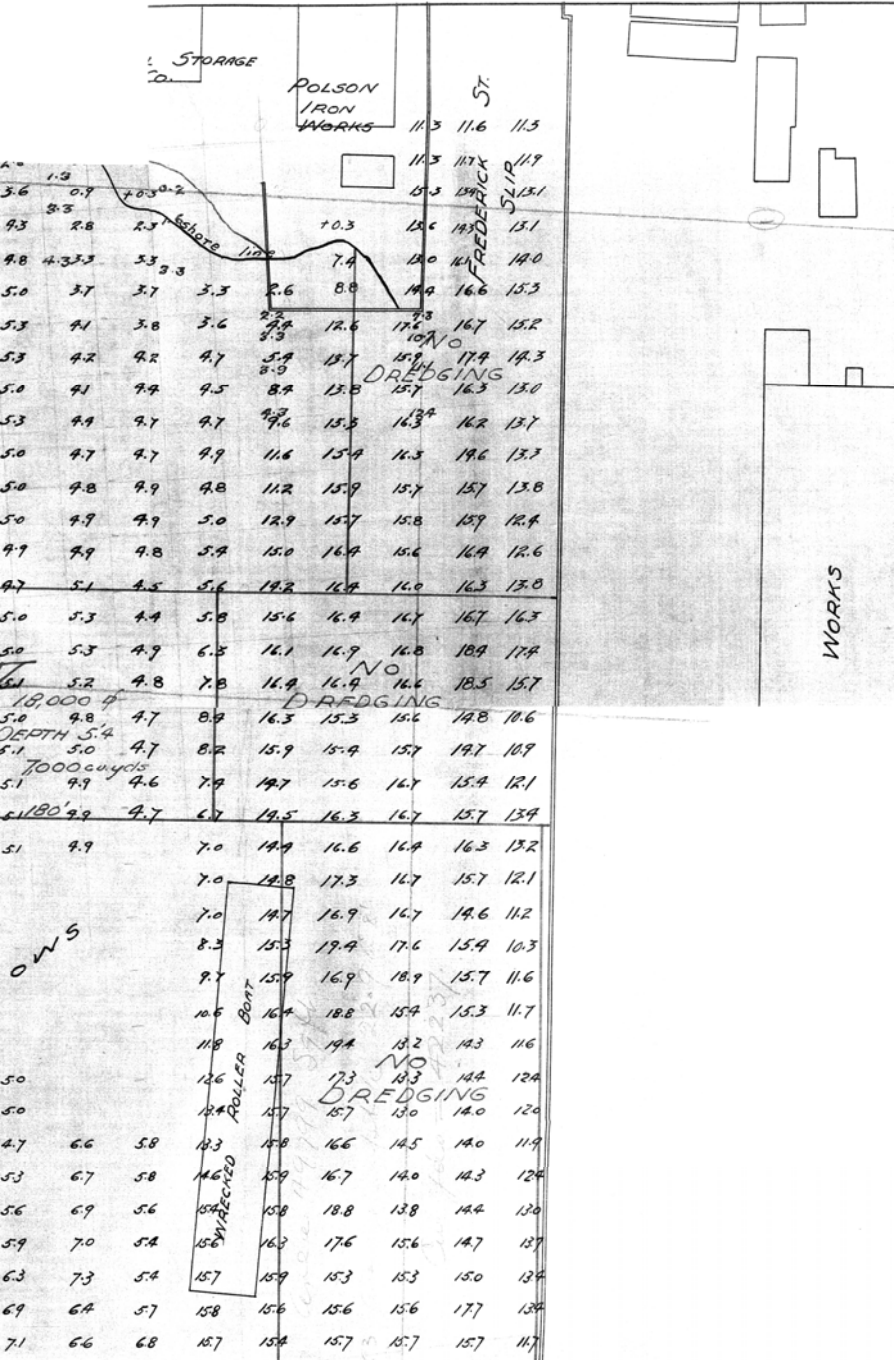


Figure 7.6.13: The reconstructed location of Knapp’s Roller Boat, buried in late 1920s lakefill.

Figure 7.6.12: Section of the 1923 Toronto Harbor Commissioners Plan Showing Soundings in Toronto Bay between Church Street and Frederick Street, Taken April 1923, prepared by W.D. Wilson. The main Polson’s wharf is to the right and is only partially shown here. The fragility of the original linen document prevented its full reproduction.

8 Resource Evaluations

8.1 Evaluation on the Waterfront

The first comprehensive archaeological evaluation system for the Toronto Waterfront was developed, in the 1980s, by Historica Research Limited for “Railway Lands Precinct A,” which consisted of major portions of the lands between Spadina and Yonge, and the railway lines and Lakeshore Boulevard (HRL 1986). This system was adapted from the then Toronto Historical Board’s evaluation process for built heritage features and involved the definition of a series of overlapping evaluation criteria, to be applied on a case-by-case-basis, to rank sites according to their relative significance.

In the subsequent 20 years, the basic evaluation criteria were used, with slight modifications, in numerous studies carried out along portions of the waterfront, both large-scale, broad-brush reviews and detailed, property-specific studies (e.g., ASI and HRL 1992, 2003, 2004; HHI 1994; HRL 1989; MPAAI 1986). The most recent explicit use of these criteria was in the Stage 1 Archaeological Assessment of the East Bayfront, West Don Lands and Port Lands Areas (ASI and HRL 2004:21-22):

Site/Feature Type: the site/feature is illustrative of patterns of cultural, political, military, economic or industrial history (e.g. an industry typical of a particular activity in Toronto).

Site/Feature Integrity: the degree to which a site/feature has been physically altered or disturbed. The integrity of the site/feature will affect the importance of the feature type.

Age: importance of sites/features is often based upon arbitrary time periods (e.g., pre-1850). Nevertheless, age alone is not a criterion of significance; it must be combined with another characteristic. A relatively unique twentieth-century site/feature for which little documentation exists, for example, may be important. Conversely, an older site/feature which is typical of numerous others may be relatively unimportant.

Historical Importance: the site/feature is associated with a person, or group of people, of local, provincial, national or international importance; or associated with an event or process of local, provincial, national or international importance. This may include a short time period, such as a military battle, or an activity that occurred over a long time period. A process may include manufacturing, repair or servicing that form an integral part of the design of a structure.

Landscape Setting: applies to sites/features manifested as visible ruins or earthworks. The removal of the ruin or earthworks, even if fully documented, or changes to the surrounding landscape, may modify society's perception of the area. From an archaeological perspective, this type of feature would be community landmark; one that forms an essential part of a distinctive skyline; or defines or terminates a vista.

Quality of Documentary Material: 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.

Consideration of these basic criteria was used to assign significance ratings to individual features to one of four basic categories:

- **Grade 1:** Historically significant feature for which field work (e.g., archaeological test excavations, possible mitigation) is recommended.
- **Grade 2:** Historically important feature for which limited archaeological fieldwork, typically monitoring¹⁰, is recommended. This grade also applies

to sites that would otherwise be ranked as Grade I, but cannot be mitigated as such for technical reasons or because of economic constraints.

- **Grade 3:** Feature of little historical significance, or for which the significance is not apparent; no form of mitigation or monitoring is necessary.
- **Grade 4:** Lakefill within Toronto Harbour.
 - i. municipal waste (including sewage, municipal garbage, and material from construction sites): analysis of this type of material may add to a better social and economic understanding of Toronto’s development in the nineteenth century
 - ii. material dredged from the harbour bottom: fill may contain unique artifacts such as ship remains that might contribute to a better understanding of unique processed
 - iii. train fill from borrow pits in Scarborough. This material is not expected to yield any significant historical information

For all assessments that have utilized this HRL-derived approach, the evaluation exercise has taken place as part of the Stage 1 study due, in part, to the detailed level of research that these typically entail. Since the 1990s, however, the grading system has been used less extensively. This is partially because of the general difficulty in balancing the assignment of a Grade 1 ranking to many features with the practical constraints inherent in the accompanying mitigation requirements. The logistics of working along the waterfront are such that, for the most part, only large scale excavations conducted during construction, with the resources that these projects can bring to bear, are feasible. Excavations in areas of made land typically extend two to nine metres below modern grade—dewatering is necessary as the archaeological features of interest are generally found at or below the historic surface of Lake Ontario. The hazards posed by the unstable character of the fills and contaminants left over from previous uses of these lands must also be managed.

archaeological salvage excavations may still be required. Monitoring agreements typically recognize that should the work result in the discovery of unexpected features, deposits or object of high heritage value, those resources will be protected until they have been adequately documented and, if feasible, recovered.

¹⁰ Adopting a monitoring program does not rule out the possibility that detailed

This inevitably has meant that a monitoring approach is required. The logistics of working along the waterfront are such that, in most cases, only large scale excavations conducted during construction, with the resources that these projects can bring to bear, are feasible.

Moreover, the Grade 4 category for fill as a distinctive class of resource is highly problematic, from an archaeological perspective. The lakefills that produce the greatest quantities of material are generally associated with post-1893 landmaking operations. These made use of all of the coal ashes and domestic refuse collected from the area south of College Street, between Spadina Avenue and Sherbourne Street—the most densely occupied part of the city. Archaeological interest in domestic refuse is in its utility as a means to reconstruct aspects of the through examining the way in which a more or less identifiable families or social groups manipulated this material culture. Key issues include examining how people selected and combined items as reflections of their self-identity, or as a means of expressing their identity, aspirations, and so on to others. Yet this material in the lakefills represents the waste of literally thousands of households. It is anonymous and without any meaningful archaeological context that would allow pursuit of any useful archaeological research questions that would further our social and economic understanding of Toronto’s development.

To all intents and purposes, therefore, this system has been reduced to two levels of significance in day-to-day practice along the waterfront: those resources that require some form of Stage 4 mitigation (typically monitoring), and those that do not. Coincidentally, this situation is mirrored, in some respects, by the generic significance evaluation process outlined in the Ministry of Culture’s 2006 Draft *Standards and Guidelines for Consultant Archaeologists*, even though this document largely is focused on the archaeological assessment process in rural/greenfield contexts (and the site types encountered in those settings) and generally assumes that the evaluation exercise for specific identified archaeological resources will not be carried out until the completion of at least Stage 2 of the assessment process.

The Ministry of Culture system (MCL 2006a: Unit 1E) divides the evaluation criteria to be considered into three basic categories: information value, community value and value as a public resource.

Information value refers to the likelihood that investigation of a site will contribute to an increased understanding of the past. Such an assessment must be carried out

through consideration of several major criteria: the degree to which a site will contribute to our understanding of the past (its cultural, historical and scientific value); the relative rarity or ubiquity of similar sites locally or regionally; the site’s productivity or richness in terms of the artifacts it contains; and the degree to which the site has been disturbed by more recent land uses or natural processes.

Value as a public resource refers to the degree that a site will contribute to an enhanced understanding and appreciation of Ontario’s past on the part of the general public.

Value to a community refers to whether or not the site has intrinsic value to a particular community, First Nation or other group.

It seems that consideration of these criteria is also expected to lead to a comparatively straight-forward “yes/no” decision; either the archaeological resource is of “high heritage value or interest” (i.e., significance) and requires further investigation and/or mitigation, or it is of “low or no heritage value or interest” and does not require further action.

Although there are differences in terminology and organization between the criteria outlined in the original HRL Toronto waterfront system and the generic system presented in the Ministry of Culture’s 2006 Draft *Standards and Guidelines for Consultant Archaeologists*, the fundamental criteria and the concepts behind them are, essentially, the same. Likewise, there is also overlap between the HRL system and that presented in the Ministry of Culture’s *Ontario Heritage Tool Kit: Heritage Property Evaluation* document (MCL2006b:23).

8.2 The ACMS Inventory Evaluations

The evaluation of the archaeological significance of the potential resources identified in the ACMS inventory follows the same general outline originally developed by Historica Research Limited for the Toronto waterfront, with the following modifications:

- The ranking of a particular resource as either Grade 1, 2 or 3 should be regarded as a statement concerning its potential *archaeological* significance, rather than its overall *historical* significance, as expressed in the original

HRL-based system. This is a subtle but important distinction. While a feature may be of relatively high historical significance in the development of the waterfront, its archaeological investigation may not lead to any new insights into its character or function, or have any meaningful role in any effort to preserve, commemorate and interpret the visible physical remains of the site.

- The *Quality of Documentation* criterion has not been used in this exercise. The inventory compilation has not entailed the extensive research that would be carried out for a specific property during the course of a formal Stage 1 Archaeological Resource Assessment. Thus the necessary data to permit a sound evaluation of the physical character—or extent of the documentation that is available—for individual features is lacking. This hinders the development of any research questions that archaeology is particularly well-suited to addressing.

The Grade 4 category, which included lakefills of all types, has not been utilized, as such materials, in and of themselves, are not considered to be archaeological resources. Notwithstanding the limitations of the forms of domestic refuse that make up so much of the lakefills, it should be noted these deposits may, on occasion, contain more “unique” items of material culture that deserve to be recovered during the course of any archaeological activity. Such artifacts are comparatively rare and their presence within the ubiquitous lakefills of the waterfront is largely unpredictable, hence there is little need to maintain fills as a distinct resource category.

Each resource within the inventory has been ranked on a scale of 0 to 5 points for each significance criterion, to arrive at a total score out of a possible total of 25 points.

Features that score 10 points or less are assigned a Grade 3 ranking (no form of mitigation or monitoring is considered necessary).

Those that score from 11 to 17 are assigned a Grade 2 ranking (for which limited archaeological fieldwork [monitoring] may be recommended). It should be noted, however, that some resources that fall within this category score quite high for criteria such as feature type, age or historical importance, but clearly have little or

no surviving integrity due to subsequent land use alterations. In such cases the requirement for monitoring may be waived.

Finally, Grade 1 resources (for which archaeological test excavations and possible mitigation efforts are necessary) are those that score 18 or higher. No such rankings were assigned to the features inventoried within the ACMS study area.

| Central Waterfront Archaeological Inventory: Summary of Features and Significance Evaluations | | | | | | | | | | | | |
|---|----------------------------------|--|---|-------------------|-----|-----------------------|-------------------|--------------------------|-------------|--|--|--|
| Inventory No. | Feature/Resource | Summary Description | Significance Evaluation Criteria (Each criterion rated on a scale of 0-5) | | | | | | | | | |
| | | | Feature Type | Feature Integrity | Age | Historical Importance | Landscape Setting | Quality of Documentation | Total Score | Significance Ranking and Recommended Action | Comments | |
| CW-1 | Yonge Street Wharf | The head of the City Corporation wharf (also known as Wharves 21 and 22). | 3 | 3 | 3 | 2 | 0 | — | 11 | Grade 2: Documentation during construction monitoring. | Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. | |
| CW-2 | City Wharf | The head of the City wharf (also known as Wharf 20). | 3 | 0 | 3 | 2 | 0 | — | 8 | Grade 3: No archaeological action required. | No remains of this wharf survive. | |
| CW-3 | Toronto Electric Light Co. Wharf | The head of the Toronto Electric Light Co. wharf (also known as Wharves 23, 24, and 25). | 3 | 3 | 3 | 2 | 0 | — | 11 | Grade 2: Documentation during construction monitoring. | Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. | |
| CW-4 | Toronto Canoe Club Wharf | The head of the Toronto Canoe Club wharf (also known as Wharf 16). | 3 | 3 | 3 | 2 | 0 | — | 11 | Grade 2: Documentation during construction monitoring. | Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. | |
| CW-5 | Argonaut Rowing Club Wharf | The head of the Argonaut Rowing Club wharf (also known as Wharf 17). | 3 | 3 | 3 | 2 | 0 | — | 11 | Grade 2: Documentation during construction monitoring. | Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. | |
| CW-6 | Unidentified Wharf | The head of an unidentified wharf. | 3 | 3 | 3 | 2 | 0 | — | 11 | Grade 2: Documentation during construction monitoring. | Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. | |
| CW-7 | Harbour Square Wharf | The head of the Harbour Square wharf (also known as Wharf 20). | 3 | 3 | 3 | 2 | 0 | — | 11 | Grade 2: Documentation during construction monitoring. | Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. | |

| Central Waterfront Archaeological Inventory: Summary of Features and Significance Evaluations | | | | | | | | | | | |
|---|--|---|---|-------------------|-----|-----------------------|-------------------|--------------------------|-------------|--|--|
| Inventory No. | Feature/Resource | Summary Description | Significance Evaluation Criteria (Each criterion rated on a scale of 0-5) | | | | | | | | |
| | | | Feature Type | Feature Integrity | Age | Historical Importance | Landscape Setting | Quality of Documentation | Total Score | Significance Ranking and Recommended Action | Comments |
| | | | | | | | | | | | |
| CW-8 | Toronto Ferry Terminal Wharf | The head of the Toronto Ferry Terminal wharf (also known as Wharf 20). | 3 | 0 | 3 | 2 | 0 | — | 8 | Grade 3: No archaeological action required. | No remains of this wharf survive. |
| CW-9 | Dominion Shipbuilding Company | World War I and II shipyard. | 3 | 0 | 2 | 3 | 0 | — | 8 | Grade 3: No archaeological action required. | No significant remains of this operation are expected to have survived later redevelopment activities. |
| CW-10 | Concrete Shorewall | Modern limit of lakefilling operations achieved in the 1920 and 1930s. | 1 | 3 | 1 | 1 | 4 | — | 10 | Grade 3: No archaeological action required. | From an archaeological perspective, none of these features are considered to be of potential high heritage value. |
| CW-11 | Air Harbour | 1929-1939 seaplane base. | 3 | 3 | 1 | 2 | 0 | — | 9 | Grade 3: No archaeological action required. | From an archaeological perspective, none of these features are considered to be of potential high heritage value. |
| CW-12 (=EB-5) | Bulkhead/Pierhead Line | Circa 1925 limit of lake fill operations between Yonge and Berkeley Streets. | 1 | 3 | 1 | 1 | 4 | — | 10 | Grade 3: No archaeological action required. | Substantial portions of the feature may be expected to have survived. It is probable that roughly contemporary secondary fill retaining structures, sewage outfall features, etc. survive to the north of the Bulkhead Line. From an archaeological perspective, none of these features are considered to be of potential high heritage value. |
| CW-13 (=EB-6) | Royal Canadian Air Force Equipment Depot No. 1 | 1940-1946 military base. | 3 | 2 | 1 | 2 | 0 | — | 8 | Grade 3: No archaeological action required. | While subsurface remains of this occupation may survive within portions of the study area, archaeological remains of this period of the precinct's history are not considered to be of potential high heritage value. |
| CW-14 | Harbourhead Line and Modern Shore | Modern limit of lakefilling operations achieved in the 1950s. | 1 | 3 | 1 | 1 | 2 | — | 8 | Grade 3: No archaeological action required. | From an archaeological perspective, none of these features are considered to be of potential high heritage value. |
| CW-15 | Toronto Water Supply Pipe System | 1872-1905 intake pipes between the John Street Pumping Station and Toronto Island | 3 | 4 | 2 | 3 | 0 | — | 12 | Grade 2: Documentation during construction monitoring. | The pipes survive as deeply buried features. |

| East Bayfront Archaeological Inventory: Summary of Features and Significance Evaluations | | | | | | | | | | | |
|--|---|---|---|-------------------|-----|-----------------------|-------------------|--------------------------|-------------|--|--|
| Inventory No. | Feature/Resource | Summary Description | Significance Evaluation Criteria (Each criterion rated on a scale of 0-5) | | | | | | | | |
| | | | Feature Type | Feature Integrity | Age | Historical Importance | Landscape Setting | Quality of Documentation | Total Score | Significance Ranking and Recommended Action | Comments |
| EB-1 | Don Breakwater | The head of the 1870 breakwater built at the mouth of Don. | 3 | 3 | 3 | 2 | 0 | — | 11 | Grade 2: Documentation during construction monitoring. | Deeply buried remains may survive, although it is highly unlikely that the cribbing forms a continuous feature. |
| EB-2 | Shoreline Fill Zone | Small area of circa 1900 made land associated with the re-engineering the mouth of the Don River. | 1 | 2 | 1 | 1 | 0 | — | 5 | Grade 3: No archaeological action required. | |
| EB-3 | Polson Iron Works | The head of the Polson’s wharf (also known as Wharves 36 and 37). | 3 | 3 | 3 | 4 | 0 | — | 13 | Grade 2: Documentation during construction monitoring. | Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. |
| EB-4 | City Corporation Yard | The head of the City Corporation wharf (also known as Wharves 38 and 39). | 3 | 3 | 3 | 2 | 0 | — | 11 | Grade 2: Documentation during construction monitoring. | Substantial portions of the foundation cribs may be expected to have survived. It may be assumed that the wharf featured timber cribbing ballasted with rock and miscellaneous fills. It is less likely that remains of the superstructure (i.e., the active working surface of the facility) are preserved. |
| EB-5 (=CW-12) | Bulkhead/Pierhead Line | Circa 1925 limit of lake fill operations between Yonge and Berkeley Streets. | 1 | 3 | 1 | 1 | 0 | — | 6 | Grade 3: No archaeological action required. | Substantial portions of the feature may be expected to have survived. It is probable that roughly contemporary secondary fill retaining structures, sewage outfall features, etc. survive to the north of the Bulkhead Line. From an archaeological perspective, none of these features are considered to be of potential high heritage value. |
| EB-6 (=CW-13) | Royal Canadian Air Force Equipment Depot No. 1. | 1940-1946 military base. | 3 | 2 | 1 | 2 | 0 | — | 8 | Grade 3: No archaeological action required. | While subsurface remains of this occupation may survive within portions of the study area, archaeological remains of this period of the precinct’s history are not considered to be of potential high heritage value. |
| EB-7 | Harbourhead Line | Modern limit of lakefilling operations achieved in the 1950s. | 1 | 3 | 1 | 1 | 2 | — | 8 | Grade 3: No archaeological action required. | From an archaeological perspective, none of these features are considered to be of potential high heritage value. |
| EB-8 | Knapp’s Roller Boat | The buried remains of Knapp’s Roller Boat most likely lie to the north of the precinct study area, beneath Lakeshore Boulevard and the Gardiner Expressway. | 4 | 1 | 3 | 3 | 0 | — | 11 | Grade 2: Documentation prior to and possibly during construction monitoring. | Given the reconstructed location of the ship’s remains, the only opportunity for investigation appears to be a remote sensing survey on the adjacent portions of the 215 Lakeshore Boulevard East property and possibly monitoring of any construction excavations there during the course of redevelopment. |

| Lower Don and Port Lands Archaeological Inventory: Summary of Features and Significance Evaluations | | | | | | | | | | | |
|---|--|---|---|-------------------|-----|-----------------------|-------------------|--------------------------|-------------|--|--|
| Inventory No. | Feature/Resource | Summary Description | Significance Evaluation Criteria (Each criterion rated on a scale of 0-5) | | | | | | | | |
| | | | Feature Type | Feature Integrity | Age | Historical Importance | Landscape Setting | Quality of Documentation | Total Score | Significance Ranking and Recommended Action | Comments |
| LDP-1 | Don Breakwater | The head of the 1870 breakwater built at the mouth of Don. | 3 | 3 | 3 | 2 | 0 | — | 11 | Grade 2: Documentation during construction monitoring. | Deeply buried remains may survive, although it is highly unlikely that the cribbing forms a continuous feature. |
| LDP-2 | Government Breakwater | 1882 structure built to prevent further migration of the marshes of Ashbridge’s Bay into the Harbour. | 3 | 3 | 3 | 2 | 0 | — | 11 | Grade 2: Documentation during construction monitoring. | Deeply buried remains may survive, although not as a continuous feature. |
| LDP-3 | Toronto Dry Dock | Short-lived dry dock built circa 1882. The feature survived for approximately 20 years after its abandonment before the area was filled. | 4 | 3 | 3 | 2 | 0 | — | 12 | Grade 2: Documentation during construction monitoring. | Deeply buried remains may survive, however the area was heavily redeveloped by British American Oil. |
| LDP-4 | Sand Bar and Fisherman’s Island Peninsula | The area of the original nineteenth century sand spit, which theoretically is of precontact and early contact period aboriginal archaeological potential. Euro-Canadian uses of area include fishing and recreational pursuits (LDP-6). | 4 | 1 | 4 | 4 | 0 | — | 13 | Grade 2: Documentation during construction monitoring. | The one section of the former landform that has been investigated revealed that no original soils had survived twentieth century filling and development within the area. |
| LDP-5 | Simcoe Beach Park Cottages, Boat Houses, etc. | Small scale fishing operations and recreational cottages, primarily of late nineteenth-early twentieth century date. | 2 | 1 | 2 | 3 | 0 | — | 8 | Grade 3: No archaeological action required. | Few traces may be expected to have survived subsequent development of the area. |
| LDP-6 | Fisherman’s Island Cottages, Boat Houses, etc. | Small scale fishing operations and recreational cottages, primarily of late nineteenth-early twentieth century date. | 2 | 1 | 2 | 3 | 0 | — | 8 | Grade 3: No archaeological action required. | Few traces may be expected to have survived subsequent development of the area. |
| LDP-7 | National Iron Works | Early twentieth century iron works. | 2 | 2 | 2 | 2 | 0 | — | 8 | Grade 3: No archaeological action required. | Foundations may remain. Previous studies have recommended that these be exposed for interpretation. Such work need not be accompanied by archaeological investigation. |
| LDP-8 | British Forgings | World War 1 steel production plant. Demolished during the 1920s and 1930s. | 2 | 2 | 3 | 3 | 0 | — | 10 | Grade 3: No archaeological action required. | Foundations may remain. Previous studies have recommended that these be exposed for interpretation. Such work need not be accompanied by archaeological investigation. |
| LDP-9 | Toronto Shipbuilding Company | World War 1 shipyard superseded by coal storage facilities. A modern building occupies part of the former site. | 2 | 3 | 2 | 3 | 0 | — | 10 | Grade 3: No archaeological action required. | Deeply buried remains may survive on the lands south of the Keating Channel. These might be exposed for interpretation. Such work need not be accompanied by archaeological investigation. |
| LDP-10 | Foundry Specialties Ltd. | One of the two earliest foundries established in the Port Lands. | 2 | 1 | 2 | 2 | 0 | — | 7 | Grade 3: No archaeological action required. | The site has been continuously occupied, therefore there is little potential for the survival of any early features or deposits with any degree of integrity. |
| LDP-11 | Toronto Iron Works Ltd. | One of the two earliest foundries established in the Port Lands | 2 | 1 | 2 | 2 | 0 | — | 7 | Grade 3: No archaeological action required. | Few traces may be expected to have survived subsequent development of the area. |
| LDP-12 | British American Oil | The earliest of the fuel operations established in the Port Lands | 2 | 2 | 2 | 2 | 0 | — | 8 | Grade 3: No archaeological action required. | Foundations may remain. Previous studies have recommended that these be exposed for interpretation. Such work need not be accompanied by archaeological investigation. |

| West Don Lands Archaeological Inventory: Summary of Features and Significance Evaluations | | | | | | | | | | | |
|---|---|---|---|-------------------|-----|-----------------------|-------------------|--------------------------|-------------|---|---|
| Inventory No. | Feature/Resource | Summary Description | Significance Evaluation Criteria (Each criterion rated on a scale of 0-5) | | | | | | | | |
| | | | Feature Type | Feature Integrity | Age | Historical Importance | Landscape Setting | Quality of Documentation | Total Score | Significance Ranking and Recommended Action | Comments |
| WD-1 | War of 1812 “tete-du-Pont” battery | Earthworks and artillery emplacement guarding the Kingston Road-Don River crossing depicted on the 1814 Williams <i>Plan of the Town and Harbour of York</i> | 5 | 0 | 5 | 4 | 0 | — | 14 | Grade 2: Documentation during construction monitoring. | Feature unlikely to have survived subsequent redevelopments of the area. |
| WD-2 | Merchant’s Shipyard | Shipyard depicted only on the 1813 Williams Sketch of the <i>Ground in Advance of and Including York...</i> | 5 | 0 | 5 | 4 | 0 | — | 14 | Grade 2: Documentation during construction monitoring. | No traces of such a very short-lived feature are likely to have survived the many reconfigurations of the shoreline. |
| WD-3 | Circa 1830 brickyard | Brickyard depicted on the 1830 Chewett <i>Plan Shewing the Survey of part of the Park East of the Town of York</i> near present intersection of Cherry and Mill streets | 2 | 0 | 5 | 2 | 0 | — | 9 | Grade 3: No archaeological action required. | Short-lived, early nineteenth century brickyards featured few permanent or large scale fixtures. Few traces would be expected to survive redevelopment of the area. |
| WD-4 | Circa 1830 brickyard | Brickyard depicted on the 1830 Chewett <i>Plan Shewing the Survey of part of the Park East of the Town of York</i> on east side of Trinity Street between Front and Mill streets | 2 | 0 | 5 | 2 | 0 | — | 9 | Grade 3: No archaeological action required. | Short-lived, early nineteenth century brickyards featured few permanent or large scale fixtures. Few traces would be expected to survive redevelopment of the area. |
| WD-5 | Circa 1830 “squatter” residences | Structures and garden/yard plots depicted on the 1830 Chewett <i>Plan Shewing the Survey of part of the Park East of the Town of York</i> on Front Street between Trinity and Cherry streets | 3 | 0 | 5 | 4 | 0 | — | 12 | Grade 2: Monitoring requirement waived. No archaeological action required | Features have not survived subsequent redevelopments of the area. |
| WD-6 | Market Place and Weigh Scale | Market Place depicted on the 1834 Chewett map of the <i>City of Toronto and Liberties</i> . Converted to a park by 1890. | 4 | 0 | 3 | 3 | 0 | — | 10 | Grade 3: No archaeological action required. | Market place reconfigured through time, razed for park space, razed again by railways. A large scale modern structure occupies much of the former market area. Even though weigh scales were massively built features it is unlikely that any remains have survived, given the repeated and extensive redevelopments. |
| WD-7 | Circa 1842 Structures | Multiple structures (presumed residential, commercial, small scale industrial) depicted on the 1842 Cane <i>Topographical Plan</i> . | 3 | 0 | 4 | 3 | 0 | — | 10 | Grade 3: No archaeological action required. | Features have not survived subsequent redevelopments of the area. |
| WD-8 | Circa 1850 Structures | Four structures on the south side of the intersection of King and Queen streets adjacent to the Don River depicted on the 1851 Dennis and Fleming <i>Topographical Plan</i> . Structures do not appear on later mapping. | 3 | 0 | 4 | 3 | 0 | — | 10 | Grade 3: No archaeological action required. | Features have not survived subsequent redevelopments of the area. |
| WD-9 | Circa 1858 Structures | Multiple structures (presumed residential, commercial, small scale industrial) depicted in the 1858 <i>Boultons’ Atlas</i> . | 3 | 0 | 4 | 3 | 0 | — | 10 | Grade 3: No archaeological action required. | Features have not survived subsequent redevelopments of the area. |
| WD-10 | Lindenwold: J.G. Worts Estate | James Gooderham Worts residence built between 1842 and 1851, demolished by 1910 and replaced by the Gooderham & Worts distillery rack house | 3 | 0 | 3 | 3 | 0 | 2 | 11 | Grade 2: Monitoring requirement waived. No archaeological action required | Feature has not survived subsequent redevelopments of the area. Stage 2-3 archaeological assessment completed 1996. |
| WD-11 | Grand Trunk Railway Yard (incl. the Toronto Rolling Mills | Complex of railway structures (storage buildings, repair shops, mills) forming part of the Grand Trunk’s Don Station south of Mill Street between Cherry and Overend streets as depicted on the 1858 <i>Boultons’ Atlas</i> and (with changes) on later sources . Most structures removed by circa 1910. Balance cleared by 1923. | 3 | 0 | 3 | 4 | 0 | — | 10 | Grade 3: No archaeological action required. | Features have not survived subsequent redevelopments of the area. |
| WD-12 | Toronto Rolling Mills Wharf | Small waterfront wharf constructed to service the Toronto Rolling Mills as depicted on the 1862 Browne and Browne <i>Plan of the City of Toronto</i> . Obsolete by circa 1884, if not earlier. | 3 | 3 | 3 | 2 | 0 | — | 11 | Grade 2: Documentation during construction monitoring. | Limited cribwork remains may survive below active railway corridor. |

| West Don Lands Archaeological Inventory: Summary of Features and Significance Evaluations | | | | | | | | | | | | |
|---|---|---|---|-------------------|-----|-----------------------|-------------------|--------------------------|-------------|---|--|--|
| Inventory No. | Feature/Resource | Summary Description | Significance Evaluation Criteria (Each criterion rated on a scale of 0-5) | | | | | | | | | |
| | | | Feature Type | Feature Integrity | Age | Historical Importance | Landscape Setting | Quality of Documentation | Total Score | Significance Ranking and Recommended Action | Comments | |
| WD-13 | Wm. Davies & Co. | Core buildings of processing plant first depicted on 1878 <i>Historical Atlas</i> . The plant expanded in subsequent years until is closure circa 1927. All buildings have been demolished. | 2 | 2 | 2 | 3 | 0 | — | 9 | Grade 3: No archaeological action required. | Twentieth century subsurface remains likely survive. | |
| WD-14 | Gooderham & Worts Cooperage | Structures depicted on the 1884-1903 <i>Goad's Atlases</i> . Demolished to make room for the Canadian Northern Ontario Railway between 1903 and 1910. | 2 | 0 | 2 | 2 | 0 | — | 6 | Grade 3: No archaeological action required. | Features have not survived subsequent redevelopments of the area. | |
| WD-15 | Toronto Street Railway Co. Stables | Post-dates a circa 1858-1880 commercial establishment (grocery store/hotel). Major stable operations began circa 1887, reconfigured by circa 1884, reconfigured repeatedly 1903-2003. | 2 | 0 | 2 | 2 | 0 | — | 6 | Grade 3: No archaeological action required. | Existing structure on property (likely incorporating major portions of the 1930s building) demolished 2003. | |
| WD-16 | Undetermined Structure | Large structure of indeterminate use depicted on the Wadsworth and Unwin map of 1872. Does not appear on any other sources. May be spurious. | 2 | 0 | 1 | 0 | 0 | — | 3 | Grade 3: No archaeological action required. | Veracity of feature unknown, but subsequent redevelopments in area suggest that remains are unlikely to have survived. | |
| WD-17 | Palace Street School | Circa 1860-1890 school. Later uses include D'Arcy Hotel/Eastern Star Hotel/Cherry Street Hotel/warehouse/Canary Restaurant. | 3 | 1 | 3 | 3 | 4 | — | 14 | Grade 2: Monitoring requirement waived. No archaeological action required | Archaeological vestiges of original function are unlikely to have survived. | |
| WD-18 | Consumers' Gas Station A | Origins in 1850s. Site extensively rebuilt in 1883-1890. Expansions throughout the early twentieth century | 2 | 1 | 2 | 3 | 2 | — | 10 | Grade 3: No archaeological action required. | Twentieth century subsurface remains likely survive. Extant building redeveloped (51 Division Police Station) | |
| WD-19 | Gooderham & Worts Distillery Complex | 1832-1990 distillery complex. | — | — | — | — | — | — | — | — | National Historic Site not subject to consideration in the Waterfront ACMS study. | |
| WD-20 | Gooderham & Worts Distillery Wharves | Circa 1850-1884 wharves serving the distillery industrial complex. | 3 | 3 | 3 | 2 | 0 | — | 11 | Grade 2: Documentation during construction monitoring. | Stage 2 archaeological assessment uncovered shoreline cribbing between the two wharf structures in 1999. | |
| WD-21 | Grand Trunk-CNR Crossing | 1857-1920 bridges and associated railway features | 3 | 0 | 3 | 3 | 0 | — | 9 | Grade 3: No archaeological action required. | Features have not survived subsequent redevelopments of the area. | |
| WD-22 | Late 19th-early 20th century Structures | Multiple structures (residential, commercial, small scale industrial) depicted on the 1884-1923 <i>Goad's Atlases</i> . | 2 | 1 | 1 | 2 | 0 | — | 6 | Grade 3: No archaeological action required. | Built up areas progressively razed throughout the twentieth century, beginning with railway clearances circa 1910. | |

9 Interpretation Plan

9.1 Purpose and Approach

The social aspects of interpreting urban heritage tend to be focused almost entirely on tourism. Visitors to historic resources in urban settings can be divided into four distinct audiences: intentional users from outside the region (heritage tourists), intentional users from inside the region (recreating residents), incidental users from outside the region (non-recreating visitors) and incidental users from inside the region (non-recreating residents and workers). Although the non-recreating residents are the largest of these groups, heritage destinations are most often geared towards attracting the smallest group, the heritage tourists.

The interpretation of urban historic sites is generally regarded to be an activity which mostly benefits local people indirectly through economic profit related to tourism. However, it is not exclusively the tourists who can enjoy having a greater awareness of Toronto’s heritage. It is difficult to define, but there are social and cultural reasons for interpreting the historic environment to local people, too. Toronto residents receive intangible advantages from heritage interpretation; it instills the city’s sense of place, it strengthens civic pride and it helps to define local identities.

Toronto has a rich and diverse local heritage but it is rarely perceived as being a place with history, even by those who live here. Through exploring and understanding Toronto’s past, life-long residents and new Canadians alike can develop a deeper connection to the city. It is an opportunity for people to place themselves within the ongoing story of Toronto. Representation in the historic environment of different social groups, including immigrant communities, can build a sense of belonging and cohesiveness. The feeling of being connected to “something larger” can be a pleasant and unexpected experience and it helps residents to identify with Toronto as home. It may be anticipated that the development of appropriate heritage interpretation and commemoration initiatives within the ACMS study area will be effective in reaching all of these potential audiences.

The purpose of this tourism assessment is to identify heritage interpretation opportunities afforded by the archaeological resources within the study area. The basic premise underlying this assessment is that for an archaeological site within the ACMS study area to contribute positively to the foregrounding of the heritage character of the area during the revitalization process it must:

- Support or contribute meaningfully and substantively to visitor experiences that are attractive to visitors; and
- Relate directly to interpretive themes that are authentic to the study area.

The research undertaken for this study has resulted in the identification of the following interpretive themes that are appropriate to the ACMS study area:

- The location and character of the original shore and Aboriginal occupations
- Landmaking to create new shore(s) – the evolution of the waterfront
- Nineteenth-century shipping
- Nineteenth-century railway development
- Nineteenth-century industrialization and infrastructure
- Twentieth-century shipping
- Twentieth-century railway development
- Twentieth-century industrialization and infrastructure
- Commerce and domestic life in the City – the impacts of waterfront shipping, railway and industrial development
- Nineteenth- and twentieth-century recreational activities – sailing, canoe clubs, etc.

Any number of secondary or sub-themes, relating to either more specific subjects that fall within the rubrics of the primary themes, or which provide linkages to other parts of the City may suggest themselves during the course of more detailed interpretive plan development.

There are three parts to the tourism assessment discussed in this section of the ACMS report.

The first is a **situation assessment**, which identifies proposed archaeologically-based heritage interpretation opportunities contained within current waterfront development plans.

The second is the identification of potential “in-situ” archaeologically-based **heritage interpretation opportunities and options** through the application of an opportunities and options framework to the current archaeological inventory within the study area.

The third is the identification of **heritage interpretation “attractions” in other jurisdictions** that provide examples of approaches that might be considered for the Toronto waterfront.

These are preceded by a brief overview of heritage tourism and interpretive opportunities and issues as they relate to the Toronto waterfront.

9.2 Overview of Heritage Tourism in the City of Toronto

Market Demand

The 2007 Travel Activities and Motivations Survey (TAMS) Research reports provide some useful insights into the importance of historical sites and exhibits for both tourists and local residents. In 2006, when respondents in Canada (a representative sample of Canadians) were asked what entertainment activities they participated in frequently or occasionally, 36% of total Canadian residents and 39% of travellers indicated historic sites/heritage buildings. This proportion was higher than the proportions participating in live theatre, museums, professional sports events or zoos or aquariums. Shopping and dining were two of the most common activities in which both American and Canadian travellers participated on their vacations (79% of Americans and 82% of Canadian travelers). Participating in activities related to exhibits, architecture or historic sites (54% of Americans and 57% of Canadian travelers) was a very common activity for travellers, ranking above festivals and events, spectator sports and theme parks. Interpretation of historical resources can be an important part of the tourism appeal in urban destinations.

Tourism Development

In 2001, ^{the} Tourism Company, working with Cameron Hawkins & Associates, completed a *Tourism Needs Assessment for the City of Toronto*. This work resulted in a tourism investment strategy for Toronto. Some of the conclusions and recommendations from this work are relevant to this Archaeological Conservation and Management Strategy.

From a competitive perspective, successful urban destinations increasingly recognize the following three relevant trends:

- Festivals and events are key travel motivators (including major commemorative events if they are considered within a long term strategy)
- Waterfront redevelopments have been major tourism catalysts in many North American communities
- Many cities have invested heavily in publicly funded attractions and infrastructure including heritage attractions, which, in turn, have stimulated significant private sector investment

Successful urban destinations have a mix of attractions, with cultural, heritage and educational attractions playing an important role by allowing the city to differentiate itself. In an era of increasing uniformity in North American cities, it becomes increasingly important to develop indigenous attractions – historical resources are critical in this regard. For Toronto, focusing on attributes that cannot be duplicated in competitive cities suggests the following key elements:

- The waterfront
- Our multi-cultural heritage
- Indigenous industries such as film and entertainment, telecommunications
- Proximity and access to other natural heritage attractions like the Niagara Escarpment, the Niagara wine region, Algonquin Park etc.
- Some of the relevant recommendations from the study were as follows:
- Focus on the waterfront as a major tourism destination within the city
- Create linkages into the neighborhoods providing visitors with first hand experience with Toronto’s cultural diversity
- Consider developing a Toronto-themed showcase built around permanent and rotating exhibits of Toronto’s culture and heritage
- Consider developing an Aboriginal showcase with the concept being developed by the First Nations people to tell the Aboriginal story in Ontario and Canada

The waterfront is a major undeveloped asset for Toronto tourism and the use of local residents. It represents an obvious location for the interpretation and showcasing of Toronto’s historic and archaeological assets. These are assets that can help to differentiate the Toronto experience.

In recent (September 2007) discussions with key stakeholders in the City of Toronto tourism sector (i.e., Toronto Tourism Division and Tourism Toronto) a number of perceived heritage interpretation development opportunities and issues were noted.

- Interpretive kiosks can be an effective addition if they are incorporated into a linear experience at key rest nodes along a multi-use trail system.
- To be more responsible to the range of visitor origins and cultures in Toronto (be they tourists or residents) it will be important to provide translation opportunities of the stories – i.e. through the use of innovative technology like cell phones or websites to access translated versions.
- The current hotspots where the interpretive stories could be incorporated most effectively for the benefit of tourism are the proposed Toronto Museum Project, the Old Town BIA plans for a smaller museum in St Lawrence Hall, and the Sony Centre redevelopment concept for a unique interpretive concept in the L (Liebskind) Tower. Ireland Park, located at the foot of Bathurst and commemorating the 1847 wave of Irish immigrants to the City is a successful recent example of such an initiative, as is the Drum in the Fort York Boulevard stair at Bathurst Street. The proposed “Watertable” public art project on Fort York Boulevard near Old Fort York provides another similar type of opportunity.
- An Aboriginal attraction or experience of some kind would be a logical addition to the waterfront, if it could be realized.

9.3 Situation Assessment

Waterfront Planning Context

The *Waterfront Culture and Heritage Infrastructure Plan, 2001 and 2003*, prepared for the City of Toronto, called for the development of a high-profile cultural zone on Toronto’s Central waterfront to enrich the cultural and recreational lives of Torontonians and to revitalize the area as a major tourism destination. The vision outlined in this plan includes creation of a high profile cultural zone that would

become an important destination for local, national and international visitors and enhance the quality of life for residents. The vision also calls for protection, enhancement and promotion of the natural, cultural and heritage resources of the waterfront. The overall goal is to turn the waterfront into a place of learning, reflection, commemoration, and celebration and to tell the stories connected to the aboriginal, settlement, immigration and industrial development themes, to name a few. Specific recommendations were included, in addition to the cultural corridors described below:

- A Cultural Centre/Museum of Toronto
- An Aboriginal Centre
- A Waterfront Festival Site

The plan defined seven cultural/natural/heritage resource corridors and twelve cultural opportunities. The corridors that fall within the current study area were as follows:

- Yonge Street – to enhance Yonge Street’s role as the cultural, commercial and civic core of the city. The foot of Yonge will be the location for a major cultural facility and a major destination for public celebrations.
- Jarvis Street – connecting with the waterfront and improving the streetscape can help turn Toronto’s Old Town into a major attraction.
- Waterfront Trail – from the Canadian National Exhibition to the Hearne Generating Station this route presents opportunities to expand downtown waterfront trails, and develop a cultural centre and festival site.
- Don River Valley – bringing back the Don will strengthen one of Toronto’s most important natural and cultural landscapes (including naturalizing the mouth of the Don as a place of public art and heritage interpretation.
- Front Street – from Fort York to the Gooderham & Worts Distillery, this route has potential to commemorate and celebrate Toronto’s relationship with the waterfront using interpretive kiosks, walking tours and public art.

The cultural opportunities that have relevance to the study area include:

- Bathurst Quay – transforming the Canada malting silos into a new cultural centre
- Harbourfront Centre – supporting programming strengths through partnerships in the arts, culture and heritage programs
- The Roundhouse – used in a way to commemorate Toronto’s history as a railroad town



- Foot of Yonge – ideal site for a major destination for public celebrations – possibly as a festival site
- Foot of Jarvis – reusing old buildings as cultural facilities
- Gooderham & Worts Distillery – for historical commemoration
- Port Lands – using the waterfront industrial landscape to accommodate new cultural festivals and increase public access to the water’s edge
- Toronto Islands – strong potential for historical interpretation such as aboriginal history

The Precinct Plans

Waterfront Toronto is overseeing the revitalization of Toronto’s waterfront. The five key priorities are:

- West Don Lands
- East Bayfront
- Central Waterfront Promenade
- Waterfront Parks & Public Realm
- Port Lands Development

Precinct Plans have been completed for the West Don Lands and East Bayfront. Of these two areas, the East Bayfront seems to have a stronger tourism orientation.

West Don Lands Precinct Plan

The Precinct Plan for the West Don Lands presents a section on Heritage resources, recognizing some of the major historical eras and features within the precinct. The report states that “the history of this area, both human-made and natural, has had a significant affect on the Precinct Plan for the West Don Lands.” It was acknowledged that any findings from any Stage 2 archaeological investigations would be appropriately integrated into new development. The potential sites included:

- Toronto Rolling Mill – early railway development
- Nineteenth-Century Housing, Commercial Establishments, Palace Street School (Canary Restaurant)
- Street Railway Stables – Toronto Street Railway using horse drawn carriages
- Grand Trunk Railway Shop – provincial transportation
- Gooderham Cooperage – barrel making for distillery
- Market and Weigh Scale –local market place

Subsequent detailed Stage 1 archaeological assessments carried out within the area (ASI 2005, 2006) concluded that there was, in fact, little to no potential for the presence of significant physical remains of any of these features due to the disturbances brought about by later land uses (see Sections 7 and 8) and that Stage 2 assessments were not required. The lack of physical remains, however, does not negate the interpretive potential of these former sites in terms of the overall redevelopment plans for the precinct.

A number of historical (landmark) buildings are identified in the Precinct Plan as being important to preserve or adaptively re-use (i.e., Dominion Foundry, Canary Restaurant, CN Police Building). The Precinct Plan recommended a feasibility study into the possible restoration of the original Don River train station back into the area adjacent to the historic railway switching station. The Plan further noted that the local history will be reflected in the design and layout details for the area, for example re-use of historic street patterns, retention of red brick gutters, historic style lighting fixtures and the industrial motifs, and the possibility of using sidewalk text or symbols to express archaeological/historical themes or locations of key features (i.e., the original shoreline).

The Plan also suggests that interpretive kiosks with an industrial character will be built and remaining industrial sites will be investigated for their potential as points of reference in Urban Design Parcel Guidelines. The only specific location identified for a major interpretive element is in the entry plaza to the Don River Park.

The Distillery District has become a significant cultural destination within the city for both tourists and local residents. The Plan recognizes the following historic themes for this Precinct:

- Industrial history
- Railways
- Urban settlement

East Bayfront Precinct Plan

The Precinct Plan for East Bayfront presents a section on Heritage resources. In this Plan historical elements will be referenced in the design of public spaces:

- Using historic street patterns, road surfaces and rail spur footprints as design features
- Marking the Bulkhead Line and the Knapp’s Roller Boat locations

- Retaining the Victory Soya Mill silos as a focus of historical interpretation
- Referencing the Marine Terminal Buildings, rail line and Queen Elizabeth dock line within the promenade and public space designs
- Drawing from history in public art commissions

Once again, Stage 2 archaeological investigations are referenced and the Plan indicates any findings will be appropriately integrated into new development. The following potentially significant features are mentioned in the Plan, as being located in either the primary East Bayfront Precinct planning area or in the adjacent Lower Don Lands:

- Knapp’s Roller Boat – ship building – buried under Lakeshore Boulevard
- Toronto Dry Dock – ship building/repair (within the Lower Don Lands area)
- Don Breakwater – navigation on the Don (within the Lower Don Lands area)
- Government Breakwater – defined Ashbridge’s Bay
- British Forgings – early industry (within the Lower Don Lands area)
- Summer cottages – late nineteenth- early twentieth-century (within the Lower Don Lands area)

Based on the research undertaken as part of the ACMS study, it is clear that, for the most part, Stage 2 archaeological assessments are not feasible or necessary for the majority of these features. Rather, archaeological monitoring has been recommended in three instances (the Toronto Dry Dock, the Don Breakwater and the Government Breakwater), while a combination of remote sensing survey and possibly archaeological monitoring has been recommended for the area of the Knapp’s Roller Boat. No formal archaeological activities are recommended for the site of the British Forgings plant or the summer cottages, although exposure and interpretation of the foundations of the former are recommended (see Section 8).

The foot of Jarvis is identified in the Plan as a unique opportunity to celebrate the past, present and future, with Redpath Sugar providing an opportunity to establish a waterfront interpretation and education centre. The foot of Parliament is identified as a location for a larger, local, national and international institutional use (i.e., National Theatre School, Film and Media Centre, University of the Arts, Conservatory of Music).



The Plan recognizes the following historic themes:

- Port development
- Industrial history
- Railways
- Boatworks
- Wharves
- Windmill Line

Conclusions

The Precinct Plans do recognize the archaeological and historical resources contained within the waterfront area, and provide for heritage interpretation through:

- passive interpretive kiosks;
- preservation of historic buildings and artifacts (where possible); and
- extensive use of key elements as design inspiration.

The interpretation opportunities with respect to these resources, however, are not just limited to signage, kiosks, and preserving historic buildings.

There is significant opportunity to interpret in other creative ways and in more interactive ways to enhance the visitor experience. Interpretation is, after all, a way to bridge the gap between the form (the material objects) and the content (how the information is shaped to provide an experience and tell the stories), allowing visitors to discover and appreciate the Toronto waterfront environment.

There is also the broader opportunity to use the waterfront interpretive experiences as a gateway, by interpreting the broader context within which the object exists and extending the stories into other parts of Ontario.

9.4 Heritage Interpretation Opportunities & Options

Assessment Framework

Figure 9.1 illustrates a framework¹¹ for assessing “in-situ” archaeological site based heritage interpretation opportunities and options. This framework applies only to archaeological sites and artifacts that are historically significant. Sites and artifacts

lacking historical significance are of little or no interest from a heritage tourism perspective, as they are highly unlikely to attract visitor attention or, more importantly, visits.

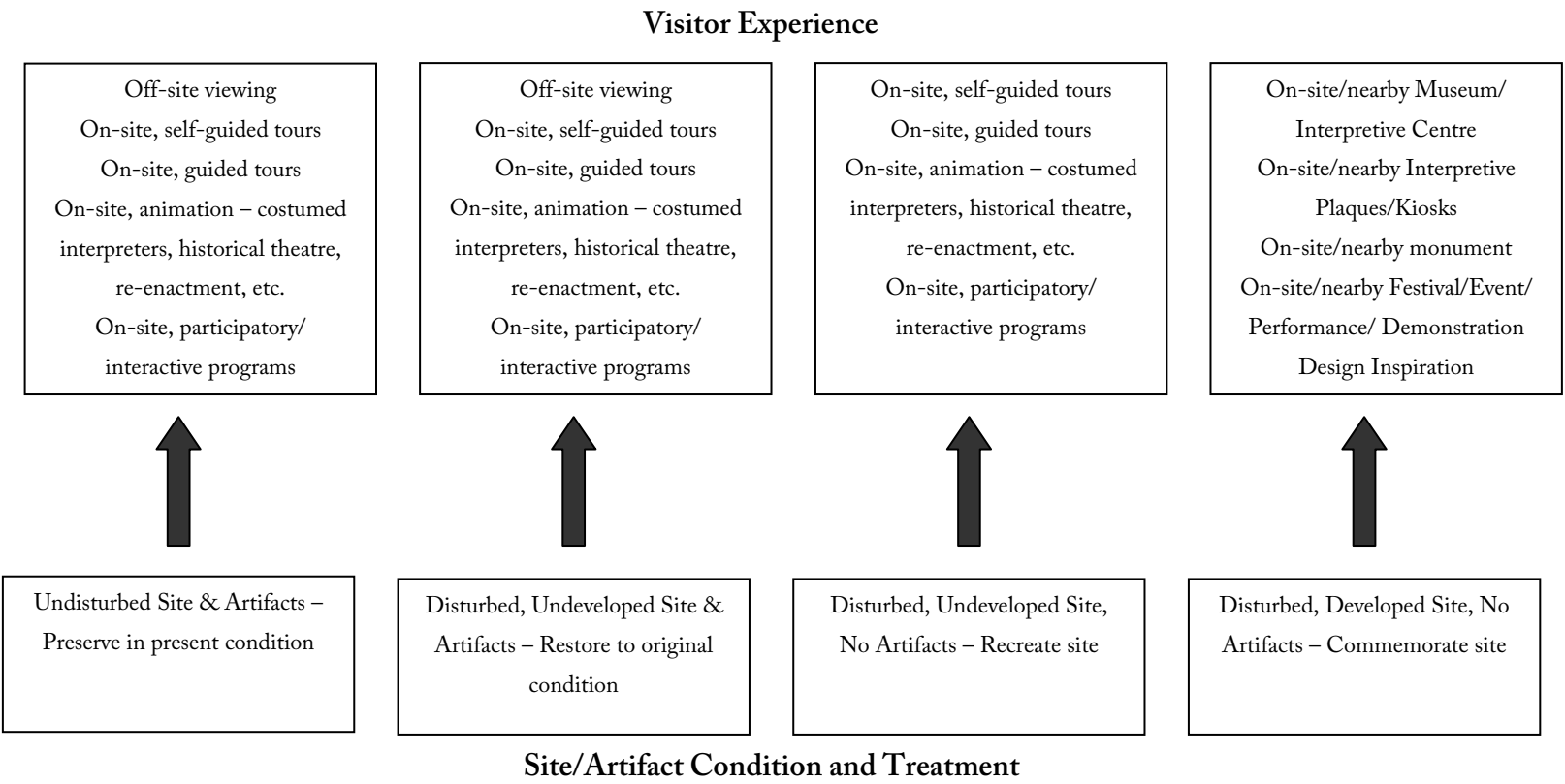
A site and artifact condition and treatment continuum with four nodes is used to identify substantive differences in types of archaeologically-based tourism development opportunities. These opportunities include:

- Preservation of a site and/or artifacts;
- Restoration of a site and/or artifacts;
- Re-creation of a site and/or artifacts; and
- Commemoration of a site.

For each type of opportunity, a range of visitor experience options are identified within the context of protecting the integrity of an archaeological site and/or artifact (where applicable), while offering a range of ways for visitors to interact with an opportunity that would provide motivation for visiting.

For the first two opportunity nodes, where a preserved or restored archaeological site and/or artifacts exist, the visitor experience options differ in the level of visitor interaction with the site and/or artifacts, and include the following:

- **Off-site viewing** or looking at a site and/or artifacts from a distance but not entering onto the site nor touching the remains – no interaction;
- **On-site self-guided tours** where visitors explore a site and or examine artifacts with minimal assistance, typically one or more of a map, interpretive pamphlet, guide book or interpretive panel(s) – limited interaction, initiated by the visitor, directed and controlled by site management;
- **On-site guided tours** where visitors explore a site and or examine artifacts with assistance provided either through technology (audio guide, motion activated audio and video, etc.) or interpretive guides (human contact) – moderate interaction is possible, particularly if human guide, initiated by the visitor but directed and controlled for the most part by site management;



¹¹ The assessment framework was developed by the Tourism Company in November 2007, specifically for use in this study.

Figure 9.1: The interpretive opportunities and options framework.



- **On-site animation** such as costumed interpreters, historical theatre, re-enactment, etc., where visitors are encouraged to immerse themselves cognitively and in a sensory way, in a previous time and setting that typifies how the archaeological site and/or artifacts would have functioned – substantial interaction is possible, initiated and to some extent directed and controlled by the visitor within parameters established by site management;
- **On-site participatory and interactive programs** where visitors are invited and encouraged to go beyond cognitive and sensory immersion to actual physical participation in events and activities typifying the operation of a site and/or artifacts in their original state – full interaction is possible, initiated, directed and controlled by the visitor within parameters established by site management.

For the third opportunity node, where a site has been re-created, “off-site viewing” is not a necessary or appropriate option, but the other options appropriate to preserved and restored sites are applicable.

For the fourth opportunity node, commemoration, the range of options changes substantially, given the absence of a preserved, restored or recreated site and/or artifacts. The visitor experience options include:

- On-site or nearby **museum or interpretive centre**, which can interpret a single theme or multiple themes with a wide variety of types of displays and programs;
- On-site or nearby **interpretive plaques or kiosks**, which typically mark the location of an historically significant site and/or event while providing interpretive information, usually as written text on a display board or panel;
- On-site or nearby **monument or artistic impression**, which typically marks the location of an historically significant site and/or event while providing symbolic or artistic interpretive content;
- On-site or nearby **festival, event, performance or demonstration** intended to celebrate and/or provide interpretive information about a historically significant place, event or person(s); and
- **Design interpretation** which seeks to commemorate a historically significant era or place through the use of design elements that link present day places or buildings with the era or place.

Assessing Toronto Waterfront Opportunities & Options

Table 9.1 presents the assessment of “in-situ” archaeologically based heritage interpretation opportunities and options for the current archaeological inventory within the ACMS study area, based on the primary themes identified above.

For the purpose of reducing repetition and duplication in the assessment, the 10 themes identified above have been consolidated into 7. This was accomplished by:

- Combining the “nineteenth-century shipping” and “twentieth-century shipping” themes;
- Combining the “nineteenth-century railway development” and “twentieth-century railway development” themes; and
- Combining the nineteenth-century industrialization and infrastructure” and “twentieth-century industrialization and infrastructure” themes.

A ranking system based on a hierarchical scale ranging from “no opportunity,” to “limited opportunity,” to “fair opportunity,” to “attractive opportunity” was used to identify potential, archaeologically-based heritage interpretive development opportunities related to the primary interpretive themes associated with the study area. Positions on the scale were determined by examining attributes that collectively influence the attractiveness of a potential heritage tourism development opportunity. These attributes include:

- The existence of a high quality archaeological site and/or attribute has the potential to be fair or attractive opportunities for preservation or restoration. Less significant or more degraded resources are generally associated with limited or no opportunity. By definition, for re-creation or commemoration opportunities, the existence of an archaeological site is not a factor. However, availability of a suitable development site “nearby” the location of a historically significant facility or event is required.
- The anticipated market appeal of an interpretive theme – in general, attractive tourism development opportunities have broad, general market appeal. Fair development opportunities are associated with niche market appeal, while limited development opportunities have narrow market appeal.
- Uniqueness of the interpretive theme – if a theme is unique in Toronto and the rest of Ontario it has the potential to be an attractive opportunity. If it is unique in Toronto only, the opportunity is fair, while generally if it is not unique in Toronto, the opportunity is limited at best, at least in terms of the out-of-town tourist market.

As indicated in Table 9.1, the **highest potential opportunities** include:

- Commemoration of the “original shore and Aboriginal occupation” and “landmaking” themes (attractive) through the full range of visitor experience options excluding festival/event/performance or demonstration;
- Commemoration of the “commerce and domestic life” theme (fair) through a full range of visitor experience options;
- Commemoration of the “nineteenth-and twentieth-century recreation” theme (fair) through a full range of visitor experience options;

In addition, there are some limited to fair opportunities for all of the themes as re-creation opportunities, for some of the themes (those not identified as the most attractive opportunities, above) as commemoration opportunities and for a few themes as restoration opportunities.

None of the themes appear to have potential as preservation opportunities while almost half of the themes have no potential as restoration opportunities.

Detailed assessment of the opportunities and options related to each theme are presented in Table 9.2.

Table 9.1: Assessment of “in situ” heritage interpretation opportunities.

| Theme | Interpretive Option | | | |
|--|---------------------|----------------|-----------------|-----------------|
| | Preserve | Restore | Recreate | Commemorate |
| Original Shore & Aboriginal Occupation | No Opportunity | No Opportunity | Limited | Attractive |
| Landmaking & evolution of the waterfront | No Opportunity | No Opportunity | Limited | Attractive |
| 19th- & 20th-Century Shipping | No Opportunity | No Opportunity | Limited to Fair | Limited to Fair |
| 19th- & 20th-Century Railway Development | No Opportunity | No Opportunity | Limited to Fair | Limited to Fair |
| 19th- & 20th-Century Industrialization | No Opportunity | Limited | Limited | Limited |
| Commerce & Domestic Life | No Opportunity | Limited | Limited to Fair | Fair |
| 19th- & 20th-Century Recreation | No Opportunity | Limited | Limited to Fair | Fair |

Table 9.2: Detailed assessment of opportunities and options

| Interpretive Themes | Archaeological Resource | | | |
|---|---|--|---|--|
| | Preserve | Restore | Re-create | Commemorate |
| Original Shore & Aboriginal Occupation | No Opportunity – no suitable sites or artifacts | No Opportunity – no suitable sites or artifacts | Limited to Fair Opportunity – if suitable site available, broad market appeal possible with compelling visitor experiences; theme would be unique in and possibly to Toronto Multiple Options – broad range of visitor experiences, likely excluding on-site animation, possible and would be unique in and to Toronto | Attractive Opportunity – broad market appeal possible with compelling visitor experiences; theme would be unique in and possibly to Toronto Multiple Options – broad range of visitor experiences, likely excluding festival/event, possible and would be unique in (and possibly to) Toronto |
| Landmaking & evolution of the waterfront | No Opportunity – no suitable sites or artifacts | No Opportunity – no suitable sites or artifacts | Limited to Fair Opportunity – if suitable site available, broad market appeal possible with compelling visitor experiences; theme would be unique in and possibly to Toronto Multiple Options – broad range of visitor experiences, likely excluding on-site animation, possible and would be unique in and to Toronto | Attractive Opportunity – broad market appeal possible with compelling visitor experiences; theme would be unique in and possibly to Toronto Multiple Options – broad range of visitor experiences, likely excluding festival/event, possible and would be unique in (and possibly to) Toronto |
| 19th- & 20th-Century Shipping | No Opportunity – no suitable sites or artifacts | No Opportunity – no suitable sites or artifacts | Limited to Fair Opportunity – if waterfront sites made available, possible to recreate examples of shipping infrastructure; “enthusiast” market appeal, potential to expand to broader markets with compelling visitor experiences; theme not unique in or to Toronto Multiple Options – full range of visitor experiences possible and would be unique in Toronto | Limited to Fair Opportunity – “enthusiast” market appeal, potential to expand to broader markets with compelling visitor experiences; theme not unique in or to Toronto Multiple Options – full range of visitor experiences possible; museum/interpretative centre, plaques already exist in Toronto |
| 19th- & 20th-Century Railway Development | No Opportunity – no suitable sites or artifacts | Limited to Fair Opportunity – some waterfront sites where some infrastructure (artifacts) still exists; international “enthusiast” market appeal with potential to expand to broader markets with compelling visitor experiences; theme unique in Toronto but not in Ontario (numerous restored heritage rail stations across Ontario, numerous restored heritage passenger railways operating in Ontario) Multiple Options – full range of visitor experiences possible and would be unique in Toronto | Limited to Fair Opportunity – if site in waterfront area made available; international “enthusiast” market appeal with potential to expand to broader markets with compelling visitor experiences; theme unique in Toronto but not in Ontario Multiple Options – full range of visitor experiences possible and would be unique in Toronto | Limited to Fair Opportunity – international “enthusiast” market appeal with potential to expand to broader markets with compelling visitor experiences; theme unique in Toronto but not in Ontario Multiple Options – full range of visitor experiences possible and would be unique in Toronto |
| 19th- & 20th-Century Industrialization and Infrastructure | No Opportunity – no suitable sites or artifacts | Limited Opportunity – some sites where some infrastructure (artifacts) still exists; narrow market appeal with limited potential to broaden; theme not unique in Toronto Multiple Options – full range of visitor experiences possible; self-guided and guided tours not unique in Toronto | Limited Opportunity – if site in waterfront area made available; narrow market appeal with limited potential to broaden; theme not unique in Toronto Multiple Options – full range of visitor experiences possible; self-guided tours not unique in Toronto | Limited – narrow market appeal with limited potential to broaden; theme not unique in Toronto Multiple Options –broad range of visitor experiences, likely excluding festival/event, possible; plaques and monuments not unique in Toronto |

Table 9.2: Detailed assessment of opportunities and options

| Archaeological Resource | | | | |
|---------------------------------|---|--|---|--|
| Interpretive Themes | Preserve | Restore | Re-create | Commemorate |
| Commerce & Domestic Life | No Opportunity – no suitable sites or artifacts | Limited Opportunity – some sites where some infrastructure (artifacts) still exists; general market appeal; theme not unique in Toronto Multiple Options – full range of visitor experiences possible; self-guided and guided tours not unique in Toronto | Limited to Fair Opportunity – if site in waterfront made available; general market appeal; theme not unique in Toronto Multiple Options – full range of visitor experiences possible; self-guided and guided tours not unique in Toronto | Fair Opportunity – general market appeal; theme not unique in Toronto Multiple Options – full range of visitor experiences possible; none would be unique in Ontario |
| 19th- & 20th-Century Recreation | No Opportunity – no suitable sites or artifacts | Limited Opportunity – some sites where some infrastructure (artifacts) still exists; general market appeal; theme not unique in Toronto Multiple Options – full range of visitor experiences possible; self-guided and guided tours not unique in Toronto | Limited to Fair Opportunity – if site in waterfront made available; general market appeal; theme not unique in Toronto Multiple Options – full range of visitor experiences possible, all would be unique in Toronto | Fair Opportunity – general market appeal; theme not unique in Toronto Multiple Options – full range of visitor experiences possible; museum/interpretive centre, plaques, monuments not unique in Toronto |

Examples from Other Jurisdictions

Globally, there are many examples of historically significant archaeological sites that have been developed as” in-situ” archaeologically-based tourist attractions through a compelling combination of opportunity and options. For the purposes of this study, a number of examples of re-creation and commemoration – the types of waterfront opportunities with the highest potential – from a wide variety of locations and venues have been identified:

Re-creation/Restoration

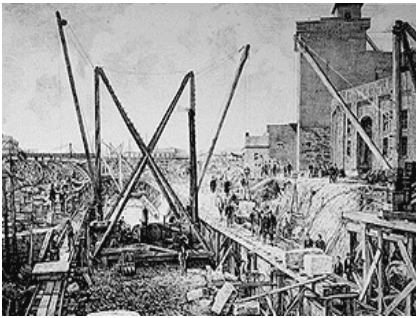
- *Lachine Canal National Historic Site, Montreal, Quebec (Restoration/Commemoration)*
- *Parc de la decouverte, Latenium, Switzerland (Commemoration/Re-creation)*
- *Los Angeles Waterfront Heritage Trolleys, Los Angeles, California (Recreate)*
- *Thunderbird Park, Victoria, BC (Restoration/Recreate)*

Commemoration

- *Cargo Boxes, Geelong, Australia (Commemorate)*
- *Historic Arkansas Riverwalk of Pueblo (Preservation/Monuments)*
- *Hudson River Way Pedestrian Bridge (Monument)*
- *[murmur] — Spadina, The Annex, Kensington Market, Little India, Toronto, Ontario (Monuments with technology)*
- *Restoring the Waters, Fairfield (Commemorate)*
- *The Forks, Winnipeg, Manitoba (Restoration/Monuments)*
- *Working Waterfront Maritime Museum, Tacoma, Washington (Monuments)*

Lachine Canal, Montreal, Quebec

- Stretches for a distance of almost 15 kilometres from Lake Saint-Louis to the Old Port in the City of Montreal.
- Represents three important developments in Canadian history: canalization and shipping, hydraulic energy development, and industrialization.
- Since 1997, the revitalization of the canal and adjacent industrial areas has resulted in the restoration of the locks, and the development of a multi-use recreational amenity consisting of pedestrian and cycling trail systems, recreational open spaces, and interpretive features.
- The installation of interpretive displays and markers is an ongoing project, the aim of which is to remind visitors of the bustling industries that dominated the canal landscape for over a century. Guided tours of some features within the National Historical Site are available through Parks Canada.
- Funding for these initiatives has come from various levels of government, community organizations and private businesses. Many of the former industrial buildings adjacent to the canal have been renovated for commercial and residential purposes.



Parc de la découverte – Laténium, Switzerland

- The Laténium is an archeology museum located in a suburb of Neuchâtel, Switzerland on the northwestern shore of Lake Neuchâtel.
- The archaeology museum includes a 2,500 m² ‘discovery park’ which is accessible to the public at all hours; there is no admission fee. At the discovery park, visitors can explore the lifestyles of people who have lived on the banks of Lake Neuchâtel since the last ice age. Environmental change along the lakeshore is represented in the open-air displays. For example, a pond indicates the ancient water level of the lake while the ‘tundra garden’ recreates the vegetation of the area as it would have been during glacial periods.
- The park features prehistoric and historic reconstructions, notably a La Tène house, a Celtic bridge and a Gallo-Roman lock system containing a ship. Also on display are the reconstructed archaeological remains of a Magdalenian hunting camp which was discovered locally.
- The outdoor reconstruction exhibits at the Laténium adhere to the theme of human adaptation to the lakeshore environment.



Los Angeles Waterfront Heritage Trolleys

- 1920s-era trolley ride
- 1.5 mile long electric rail trolley route linking the World Cruise Center with various attractions along the San Pedro waterfront
- Two new historic-replica electric railcars, carefully patterned after an actual 1909 PE Red Car design
- Uses an existing rail corridor, much of which is actually a former PE right-of-way, and will initially have four stations
- New downtown Red Car station is sited approximately where the PE’s San Pedro depot stood
- Expected to be an attraction in its own right, tapping into the nostalgia for LA’s famous Red Cars



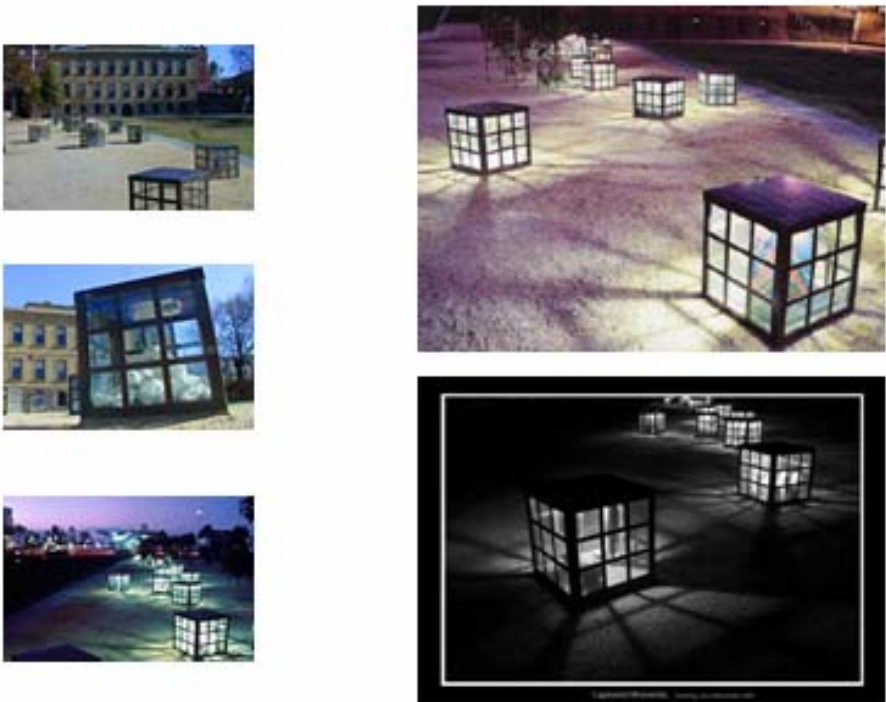
Thunderbird Park

- Adjacent to and part of the Royal British Columbia Museum
- Thunderbird Park is one of downtown Victoria’s most extraordinary features
- Display of poles and big houses
- First Nations artists carve and paint totem poles in the Kwakwaka’wakw big house during the summer months



Geelong Cargo Boxes

- Public art project called "Cargo Boxes" installed in bay-side Customs House Park which adjoins the historic Geelong Customs House.
- Large bronze and glass boxes contain sculptures that represent items which were shipped through the Port of Geelong over the past 200 years.
- Each box is inscribed with the name of the vessel that carried the goods, the dates the vessel operated, the types of cargo it carried and the origin or destination of the vessel.
- The symbolic sculptures educate waterfront visitors about the local shipping trade and Geelong’s links to other port cities around the world.
- The boxes have a secondary use as street furniture: they provide seating and they are internally lit to illuminate the park at night.



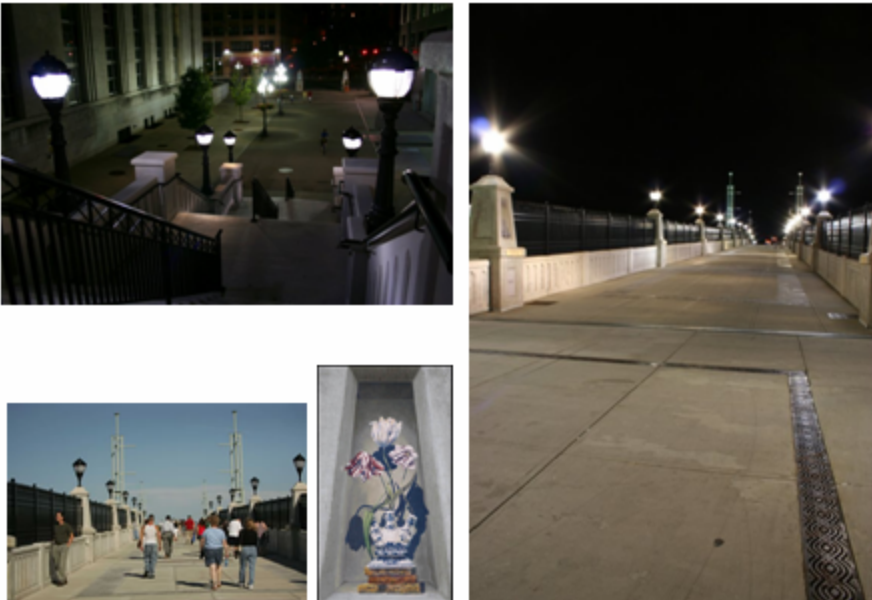
Historic Arkansas Riverwalk

- 26 acre urban waterfront public space: visitors access pedestrian paths surrounding the entire area as well as bike paths, which connect to bike trails leading to Lake Pueblo
- Lake Elizabeth, located on the west side of the project, has a lakeside promenade designed to provide a natural area for waterfowl, fish and other wildlife
- The original Arkansas River stone wall has been incorporated into the design, creating a historic setting and theme that is carried throughout the project.



Hudson River Way Pedestrian Bridge

- The project is the culmination of an effort to reconnect modern downtown Albany and its historic waterfront
- Provides physical access and serves as an outdoor museum to celebrate the community’s historic link to the Hudson River
- The bridge is lined with 30 concrete obelisks, each featuring unique artwork created by local artists. Each work represents a time period in Albany’s history by depicting artifacts uncovered in nearby archaeological excavations.
- Included in the project is a pedestrian plaza, a decorative concrete staircase, an elevator building, an access ramp, drainage and streetscape improvements, engraved granite blocks on the bridge deck, ornamental lighting and fencing and the integration of decorative elements and artwork reflecting Albany’s history.



[murmur]

- A documentary oral history project focused on stories and memories about specific locations in the City
- People’s personal histories and anecdotes about places in their neighbourhoods are made accessible
- In each featured location, a [murmur] sign lists a telephone number that anyone with a mobile phone can call to listen to that story while standing in that exact spot and engaging in the physical experience of being right where the story takes place. Some stories suggest that the listener walk around, following a certain path through a place, while others allow people to wander with both their feet and their gaze.
- All stories are available on the [murmur] website, but their details truly come alive as the listener walks through, around and into the narrative
- [murmur] was first established in Toronto’s Kensington Market in 2003. That same year projects were launched in Vancouver’s Chinatown and along St. Laurent Boulevard in Montreal. Over the past two years [murmur] has expanded across other neighbourhoods in Toronto and grown to include Calgary, San Jose, Edinburgh and Dublin



Restoring the Waters

- Restoring the Waters” was developed by two artists as a response to local residents who did not realize that a natural creek had pre-existed a 1970s concrete stormwater canal
- The artists transformed the diverted creek’s concrete banks into a water-themed mural with the help of local children. Volunteers collected oral and written stories about the history of the creek to highlight the cultural significance of water
- Lastly, the artists created the “Memory Line”. This environmental sculpture is a 2.7 kilometre long band of rye grass which has been planted to mark the original course of Clear Paddock Creek prior to its channelization
- The Memory Line is an ephemeral artwork which commemorates change within the landscape



The Forks

- The Broadway Promenade is the new pedestrian connection between the Esplanade Riel pedestrian bridge to Union Station and Broadway Avenue
- In keeping with the area’s history, the Promenade restores the original linear connection between downtown Winnipeg and St. Boniface, and includes an Aboriginal interpretive site, a fountain and over 200 elm and oak trees



Working Waterfront Maritime Museum

- Located in a century-old wheat transfer facility that is one of two remaining wooden warehouses originally built as a “mile long” complex in 1900 along Tacoma’s Thea Foss Waterway
- When completed, the Seaport will be the largest maritime heritage and educational centre on the west coast and he only authentic facility in the Pacific Northwest to showcase the region’s maritime history in a location where that history actually took place
 - Today, activities housed and sponsored by the Thea Foss Waterway Seaport and the Working Maritime Museum include a 10,000 square foot maritime museum, boat shop facilities where volunteers work on boat restoration and new boat construction projects, and a hands-on area to expose children to nautical terms and help them gain an appreciation for boats



10 The Archaeological Conservation and Management Strategy: Recommendations

10.1 Planning Recommendations

- 10.1.1 The inventory of potential archaeological resources compiled for this study, and the evaluation system defined for them, should serve as the basis for future planning decisions with respect to the archaeological assessment process within the ACMS study area. As a condition of planning approval for both public and private lands, the City of Toronto will require that any Grade 1 (should they occur) or Grade 2 resources be commemorated and interpreted within the new development as a condition of draft plan approval. The City may also require that Grade 3 resources be interpreted and commemorated within the new development as a condition of draft plan approval and to the satisfaction of the Manager of Heritage Preservation Services.
- 10.1.2 All development plans within the ACMS study area should be reviewed against the archaeological inventory to determine if the proposed undertakings have the potential to impact upon an identified resource. Should any such impacts to a Grade 2 resource be identified, further archaeological mitigation, in the form of monitoring will be required. Should it be determined that a development proposal will impact a Grade 3 resource, or will not affect any known feature, then no further archaeological assessment activity will be required.
- 10.1.3 This process should be formalized with the City of Toronto and implemented following Waterfront Toronto's acceptance of the ACMS plan.
- 10.1.4 A protocol should be negotiated among City of Toronto Heritage Preservation Services, TRCA and Waterfront Toronto that coordinates and implements the ACMS for all land use development, and EA Process undertakings within Waterfront Toronto's jurisdiction.

- 10.1.5 All future development agreements and EA orders should include reference to the following contingency plan for the protection and management of unexpected archaeological resources.

The ACMS Contingency Plan

The inventory of potential archaeological resources was compiled using a wide variety of primary and secondary source materials, including previous archaeological assessments that have been completed within or adjacent to the ACMS study area. It includes all major features or feature types predating circa 1950 which characterize the development and use of this portion of Toronto's waterfront. While every effort has been made to ensure that the inventory is comprehensive, it must be recognized that unexpected heritage resources of interest or value may be encountered during redevelopment activities.

Public Lands

- 10.1.6 When an unexpected resource is found on public land, work should stop in the immediate vicinity of the discovery. The resource should be evaluated by a licensed archaeologist retained by the proponent. Its significance should be evaluated using the ACMS and reviewed with the City of Toronto Heritage Preservation Services.
- 10.1.7 Regardless of whether or not development approvals are already in place, should a large-scale (non-portable/structural) resource be evaluated as being of Grade 1 significance, the development agency and the City of Toronto Heritage Preservation Services will explore thoroughly opportunities for documentation and in situ preservation through design changes, or removal and preservation elsewhere within the development area, or in some other appropriate location in the immediate vicinity. The remains and any resultant information are to be used in the commemorative or public interpretive plan for the development, prepared to the satisfaction of the Manager of Heritage Preservation Services.

- 10.1.8 Should a small scale (portable) resource be evaluated as being of Grade 1 significance, it should be removed for conservation and interpretation.
- 10.1.9 Regardless of whether or not development approvals are already in place and the resource is evaluated as being of Grade 2 significance, it is to be documented through a formal archaeological monitoring agreement established between the development proponent and a licensed archaeologist. The resultant information is to be used in the commemorative or public interpretive plan for the development, prepared to the satisfaction of the Manager of Heritage Preservation Services.
- 10.1.10 In the case where Grade 1 resources are unexpectedly found on public lands, it is recommended that Waterfront Toronto establish a discretionary fund, of up to one million dollars (\$1,000,000), for assessment work, salvage excavation, retention and commemoration/interpretation of Grade 1 resources. These contingency funds may be sufficient to carry out these activities, or may be used to initiate the work while other sources of funding are investigated.

Private Lands

- 10.1.11 When an unexpected resource is found on private land, work should stop in the immediate vicinity of the discovery. The resource should be evaluated by a licensed archaeologist retained by the proponent. Its significance should be evaluated using the ACMS and reviewed with the City of Toronto Heritage Preservation Services.
- 10.1.12 If development approvals are already in place and should a large-scale (non-portable/structural) resource be evaluated as being of Grade 1 significance, it is to be documented *in situ* through archaeological excavation and recording. Where feasible, remains may be removed for conservation and reconstruction, as deemed appropriate by the archaeologist in consultation with the City of Toronto Heritage Preservation Services and the development proponent.

- 10.1.13 If development approvals are already in place and should a small scale (portable) resource be evaluated as being of Grade 1 significance, it should be removed for conservation and interpretation.
- 10.1.14 If all development approvals are already in place and the resource is evaluated as being of Grade 2 significance, it is to be documented through a formal archaeological monitoring agreement established between the development proponent and a licensed archaeologist. The resultant information is to be used in the commemorative or public interpretive plan for the development, prepared to the satisfaction of the Manager, Heritage Preservation Services.
- 10.1.15 In order that contingency funding is available for assessment work, salvage excavation, and commemoration/interpretation related to any unexpected Grade 1 resources that may be found on a private development site, it is recommended that the City of Toronto, with the support of Waterfront Toronto, require that a precondition of development approval be that the development proponent commit to provide funding, through, for example, a letter of credit. The sum of funding provided will be commensurate with the size and character of the development proposal and a general evaluation of the likelihood for the survival of any unexpected resources.

It should be noted that the recommendations for a Waterfront Toronto contingency fund for public lands and development proponent letters of credit for private lands are intended to address the unique situation that the waterfront presents in terms of the potential for the presence of unpredictable marine archaeological resources.

10.2 Conservation/Curation Recommendations

- 10.2.1 The City of Toronto should explore opportunities for the storage and conservation of artifacts and resources recovered through the archaeological assessment process.
- 10.2.2 The City of Toronto must provide the appropriate facility for the storage of the remains of any Grade 1 resource.

10.3 Inventoried Resource Recommendations

Section 7 of this report comprises the inventory of all identified sites or feature classes of potential archaeological concern that are located, whole or in part, within the ACMS study area. Section 8 presents the significance or heritage value evaluation system developed for these resources and the grading assigned to each feature.

No site within the study area has been ranked as a Grade 1 resource, that is, a feature of such high significance that archaeological assessment in the form of test excavations and possible mitigation efforts (salvage excavation or preservation in situ) undertaken in advance of development is necessary. The lack of Grade 1 resources within the study area is due to a number of factors, mainly the relatively recent formation of many parts of the study area through landmaking activities (e.g., the Central Waterfront, East Bayfront and the Lower Don and Port Lands precincts); the expected or demonstrated lack of integrity associated with features that might otherwise be considered Grade 1 (e.g., many of the nineteenth century features in the West Don Lands); and the logistical difficulties in carrying out such work within former waterfront zones (e.g., the depths at which remains are buried, dewatering etc.).

- 10.3.1 Twenty-one inventoried features or combinations of features within the study area have been ranked as Grade 2 resources. These are regarded as exhibiting moderate archaeological significance. Limited archaeological fieldwork, in the form of monitoring during construction excavations, is recommended for 18 of these sites. This requirement has been waived for the remaining three sites. Although these rate relatively highly in terms of historical criteria, there is little to no potential for the survival of intact associated archaeological deposits. For one site (Knapp’s Roller Boat) it is further recommended that remote sensing survey be carried out within adjacent 215 Lakeshore Boulevard East lands to determine whether or not the feature extends into this area.

Archaeological monitoring is undertaken once large scale excavations commence on a site. An archaeological monitoring protocol will be developed on a site-specific basis to the satisfaction of the Manager, Heritage Preservation Services and will address such matters as: informing site staff in advance of construction of their roles

| GRADE 2 ARCHAEOLOGICAL RESOURCES WITHIN THE ACMS STUDY AREA | | |
|---|---|---|
| Inventory No. | Feature/Resource | Recommendation |
| <i>The Central Waterfront Precinct</i> | | |
| CW-1 | Yonge Street Wharf | Archaeological construction monitoring. |
| CW-3 | Toronto Electric Light Co. Wharf | Archaeological construction monitoring. |
| CW-4 | Toronto Canoe Club Wharf | Archaeological construction monitoring. |
| CW-5 | Argonaut Rowing Club Wharf | Archaeological construction monitoring. |
| CW-6 | Unidentified Wharf | Archaeological construction monitoring. |
| CW-7 | Harbour Square Wharf | Archaeological construction monitoring. |
| CW-15 | Toronto Water Supply Pipe System | Archaeological construction monitoring. |
| <i>The East Bayfront Precinct</i> | | |
| EB-1 | Don Breakwater | Archaeological construction monitoring. |
| EB-3 | Polson Iron Works | Archaeological construction monitoring. |
| EB-4 | City Corporation Yard | Archaeological construction monitoring. |
| EB-8 | Knapp’s Roller Boat | Remote sensing survey (215 Lakeshore Boulevard East) and possibly archaeological construction monitoring. |
| <i>Lower Don and Port Lands Precinct</i> | | |
| LDP-1 | Don Breakwater | Archaeological construction monitoring. |
| LDP-2 | Government Breakwater | Archaeological construction monitoring. |
| LDP-3 | Toronto Dry Dock | Archaeological construction monitoring. |
| LDP-4 | Sand Bar and Fisherman’s Island Peninsula | Archaeological construction monitoring. |
| <i>West Don Lands Precinct</i> | | |
| WD-1 | War of 1812 “tete-du-Pont” battery | Archaeological construction monitoring. |
| WD-2 | Merchant’s Shipyard | Archaeological construction monitoring. |
| WD-5 | Circa 1830 “squatter” residences | Monitoring requirement waived. No archaeological action required. |
| WD-10 | Lindenwold: J.G. Worts Estate | Monitoring requirement waived. No archaeological action required |
| WD-12 | Toronto Rolling Mills Wharf | Archaeological construction monitoring. |
| WD-17 | Palace Street School | Monitoring requirement waived. No archaeological action required |
| WD-20 | Gooderham & Worts Distillery Wharves | Archaeological construction monitoring. |

and responsibilities; the frequency of site visits on the part of the consultant archaeologist (i.e., full time attendance or daily/weekly visits); the establishment of protocols and actions to be followed by site personnel in the event that resources are encountered; and the responsibilities of the consultant archaeologist during this process. A monitoring agreement must also include the proviso that the absence of the archaeological personnel on site, any significant feature encountered during the excavations must be preserved intact for a set period of time to allow the monitor to visit the site and record its salient attributes and carry out any other activities that may be necessary.



All archaeological monitoring and documentation activities must be undertaken in a manner that has due regard to worker safety.

Where practicable, the removal, in whole or in part, of well-preserved large-scale/structural remains documented through monitoring for their interpretation and commemoration on the waterfront is a desirable option. Interpretation and commemoration of these remains may include, for example, adaptive re-use of materials in open space landscape design schemes and public art projects in addition to more traditional conservation practices. Major features of interest in this regard include Knapp’s Roller Boat, the Polson Iron Works and the Gooderham & Worts wharves.

10.3.2 Thirty-two inventoried features or combinations of features within the study area have been assigned a Grade 3 ranking. For these sites it has been determined that archaeological investigation will not lead to any new insights into their character or function, or have any meaningful role in any effort to preserve, commemorate and interpret their physical remains. This does not mean that there should be no commemorative or interpretive initiatives undertaken for these features. As noted previously, the City may require that Grade 3 resources be interpreted and commemorated within the new development as a condition of draft plan approval and to the satisfaction of the Manager of Heritage Preservation Services.

It should be noted that one remaining site, the main complex of the Gooderham & Worts Distillery has not been ranked as this National Historic Site is not subject to consideration in the Waterfront ACMS study.

10.4 Interpretation Recommendations

10.4.1 It is recommended that Waterfront Toronto, the City of Toronto - Culture Division and City Planning - Heritage Preservation Services Unit, and Heritage Toronto co-ordinate commemoration/interpretation of the evolution of the shoreline from its original nineteenth century location to the present water’s edge. This could involve use of the major north-south streets/rights of way from Bathurst Street to Cherry Street south of Front Street within a unified design programme.

GRADE 3 ARCHAEOLOGICAL RESOURCES WITHIN THE ACMS STUDY AREA

| Inventory No. | Feature/Resource | Recommendation |
|--|---|------------------------------------|
| <i>The Central Waterfront Precinct</i> | | |
| CW-2 | City Wharf | No archaeological action required. |
| CW-8 | Toronto Ferry Terminal Wharf | No archaeological action required. |
| CW-9 | Dominion Shipbuilding Company | No archaeological action required. |
| CW-10 | Concrete Shorewall | No archaeological action required. |
| CW-11 | Air Harbour | No archaeological action required. |
| CW-12 | Bulkhead/Pierhead Line | No archaeological action required. |
| CW-13 | Royal Canadian Air Force Equipment Depot No. 1 | No archaeological action required. |
| CW-14 | Harbourhead Line and Modern Shore | No archaeological action required. |
| <i>The East Bayfront Precinct</i> | | |
| EB-2 | Shoreline Fill Zone | No archaeological action required. |
| EB-5 | Bulkhead/Pierhead Line | No archaeological action required. |
| EB-6 | Royal Canadian Air Force Equipment Depot No. 1. | No archaeological action required. |
| EB-7 | Harbourhead Line | No archaeological action required. |
| <i>Lower Don and Port Lands Precinct</i> | | |
| LDP-5 | Simcoe Beach Park Cottages, Boat Houses, etc. | No archaeological action required. |
| LDP-6 | Fisherman’s Island Cottages, Boat Houses, etc. | No archaeological action required. |
| LDP-7 | National Iron Works | No archaeological action required. |
| LDP-8 | British Forgings | No archaeological action required. |
| LDP-9 | Toronto Shipbuilding Company | No archaeological action required. |
| LDP-10 | Foundry Specialties Ltd. | No archaeological action required. |
| LDP-11 | Toronto Iron Works Ltd. | No archaeological action required. |
| LDP-12 | British American Oil | No archaeological action required. |
| <i>West Don Lands Precinct</i> | | |
| WD-3 | Circa 1830 brickyard | No archaeological action required. |
| WD-4 | Circa 1830 brickyard | No archaeological action required. |
| WD-6 | Market Place and Weigh Scale | No archaeological action required. |
| WD-7 | Circa 1842 Structures | No archaeological action required. |
| WD-8 | Circa 1850 Structures | No archaeological action required. |
| WD-9 | Circa 1858 Structures | No archaeological action required. |
| WD-11 | Grand Trunk Railway Yard (incl. the Toronto Rolling Mills | No archaeological action required. |
| WD-13 | Wm. Davies & Co. | No archaeological action required. |
| WD-14 | Gooderham & Worts Cooperage | No archaeological action required. |
| WD-15 | Toronto Street Railway Co. Stables | No archaeological action required. |
| WD-16 | Undetermined Structure | No archaeological action required. |
| WD-18 | Consumers’ Gas Station A | No archaeological action required. |
| WD-21 | Grand Trunk-CNR Crossing | No archaeological action required. |
| WD-22 | Late 19th-early 20th century Structures | No archaeological action required. |

10.4.2 It is recommended that Waterfront Toronto, the City of Toronto - Culture Division and City Planning - Heritage Preservation Services Unit and Heritage Toronto co-ordinate commemoration/interpretation of the landmaking, shipping, railway and industrial themes within the ACMS study area as these are fundamental to the history of the area. There are a variety of means by which this goal can be accomplished, in addition to traditional interpretive plaque and panel approaches. The case studies presented in Section 9 provide a range of options in this regard.

Specific features that may have a role to play in these efforts include Polson Iron Works, Knapp’s Roller Boat, the Air Harbour, the RCAF depot, Gooderham & Worts, Consumers’ Gas, Wm. Davies, nineteenth- and twentieth-century working class neighbourhoods, the Dominion Shipbuilding Company, etc.

Commemoration and interpretation of specific features and themes, in whatever manner (be it display of material remains, creation of interpretive panels, or by other means), while inevitably constrained by the disposition of open spaces and public realms within the ACMS study area should be structured with an appropriate regard to a historic sense of place. If possible, for example, the stories of Knapp’s roller boat and the Polson Iron Works could be best told in Sherbourne Park, and/or the Waterfront Promenade, as these are located in close proximity to the original site of these events. Likewise the most obvious place to feature the Gooderham & Worts wharves would be within the Distillery District itself. The likelihood that any such initiatives can incorporate associated physical remains is dependent upon many factors that cannot be determined with any precision until such remains are uncovered, but should be recognized as a desirable option. At a more general level of commemoration (evocation rather than the telling of a specific story), timbers from waterfront cribbing should be reused as landscape elements or park/street furniture within the public spaces on the waterfront.

Consistent with previous studies of the heritage of the East Bayfront and Port Lands (Stinson 1990; Stinson and Moir 1991), it is recommended that precinct design plans include opportunities for interpretation of industrial heritage remains through the exposure of foundations and interpretation of these features. Key sites include the National Iron Works, British Forgings, British American Oil and the Toronto Shipbuilding Company. In these cases, exposure of the remains need not be accompanied by archaeological investigation.

Furthermore, Waterfront Toronto and the City of Toronto should commemorate the historical development and heritage character of the area in its place-naming programme for public spaces, including parks and new roads (in accordance with the City of Toronto Street Naming Policy).

10.4.3 The interpretation of these themes should be co-ordinated with Heritage Toronto and the Royal Ontario Museum in order to allow integration with their interpretive programs, walks and tours.

10.4.4 In light of the foregoing considerations, it is recommended that Waterfront Toronto undertake a Cultural Heritage Interpretation Implementation Plan in order to co-ordinate this aspect of the revitalization of the waterfront and to develop concrete heritage interpretation plans and a uniform vision of their execution along the waterfront and their articulation with other aspects of open space/public realm design and development.

10.4.5 It is recommended that Waterfront Toronto develop a cultural heritage sub-directory within its website, wherein information concerning the history of the waterfront, its archaeological investigation, and the resultant discoveries are featured.

As noted in Section 5, Aboriginal occupation of the waterfront area, prior to its massive transformation in the nineteenth and twentieth centuries, was extensive. Physical remnants of these occupations have been removed or dispersed beyond systematic recovery in those portions of the study area that existed prior to the development of the modern waterfront. Consequently, the ACMS is heavily weighted towards the archaeological and historical legacy left by the metamorphosis of the waterfront during the growth of the city. Nevertheless, there remains a need ensure that this important legacy is highlighted in the waterfront of the future.

10.4.6 It is recommended that the feasibility of developing a means of interpreting and commemorating the history of the First Nations occupation of Toronto's waterfront should be investigated. Waterfront Toronto should form a First Nations Working Group to identify the appropriate First Nations groups and representatives with whom to explore this option.

Sources

Anonymous

n.d. untitled and undated photographs of the interior and exterior of Knapp’s Roller Boat, Archives of Ontario, C130-3-0-22-1, C130-3-0-22-2 and C130-3-0-22-3, accessions 6899-667 and 6899-681 (B116803, container A1831).

n.d. “Knapp’s Roller Boat, Built to Banish Sea-Sickness by Utilizing the ‘Inertia of Motion,’ Now Lies Buried Under Railway Tracks,” undated newspaper clipping held by the Toronto Harbour Commission Archives.

1897 “Novelties in Navigation,” *Canadian Engineer* volume 3 (July 1897) p. 73.

1897 “Knapp’s Roller Boat,” *Canadian Engineer* volume 7 (November 1897) p. 192.

1898 “The Knapp Roller Boat,” *Canadian Engineer* volume 10 (February 1898) p. 307-308.

1899 “Knapp and his Barrel Boat,” *Daily Mail and Empire*, January 16, 1899, p. 6 (Toronto Public Library microfilm reel 14/Canadian Library Association reel 2710).

1899 “The Roller Boat Will Be a Ferry,” *Daily Mail and Empire*, June 8, 1899, p. 5 (Toronto Public Library microfilm reel 15).

1899 “Knapp Boat Has Left Toronto,” *Daily Mail and Empire*, June 10, 1899, p. 9 (Toronto Public Library microfilm reel 15).

1899 “Roller Boat Rolls Ashore,” *Daily Mail and Empire*, June 13, 1899, p. 5 (Toronto Public Library microfilm reel 15).

1902 “News of the Great Lakes,” *Daily Mail and Empire*, September 26, 1902, p. 10 (Toronto Public Library microfilm reel 28).

1904 “Knapp Roller Boat Back in Toronto,” *Toronto Daily Star*, August 10, 1904, p. 1 (Toronto Public Library microfilm reel 41).

1904? “Victory—Out and Under,” undated newspaper clipping held by the Toronto Harbour Commission Archives.

1907 “The Remodeled Roller Boat,” *Evening Telegram*, July 6, 1907, p. 22 (Toronto Public Library microfilm reel 91).

1908 “Tis 365 for Roller Boat,” *Evening Telegram*, November 25, 1908, p. 13 (Toronto Public Library microfilm reel 99).

1922 “\$60,000 Worth of Invention,” undated newspaper clipping, held by the Toronto Harbour Commission Archives.

1929 *Plan Showing Proposed Subdivision of Part of Waterlot Patented to the Toronto Harbour Commissioners, November 4, 1925, and Part of Parcel 2 Plan 153E*. Plan dated December 17, 1929, and filed in the City of Toronto Land Registry Office as Plan 666E on February 27, 1930.

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