Archaeological Monitoring and Documentation of the Remains of the Queen's Wharf, Block 7, Fort York Neighbourhood, City of Toronto, Ontario

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#### **1.0 INTRODUCTION**

Archaeological Services Inc. was retained by McCarthy Tetrault LLP on behalf of Malibu Investments Inc. to document the remains of those portions of the Queen's Wharf encountered during the redevelopment of Block 7 within the Fort York Neighbourhood, City of Toronto (Figure 1). The study area, which measures approximately 0.5 hectare in area, is located at the northwest corner of Fleet and Bathurst streets.



Figure 1: The location of the Block 7 monitoring area.

This work was conducted under the project direction of Ms. Debbie Steiss under archaeological license P050 (MCL CIF P049-139-2006) issued to Ms. Steiss pursuant to the Ontario Heritage Act (2005). Dr. Ronald Williamson served as the Project Manager for the study. Monitoring of the construction excavations and documentation of the remains of the wharf was carried out by Mr. David Robertson.

Permission to access the project area and carry out the activities necessary for the completion of the monitoring and documention was granted to Archaeological Services Inc. by Malibu Investments Inc. and McCarthy Tetrault LLP on March 15, 2006.

# 2.0 BACKGROUND RESEARCH

# 2.1 Physiographic Setting

The Toronto waterfront is an area in which massive landscape changes have occurred. In the vicinity of the subject property, the most dramatic changes began to occur during the mid-nineteenth century, in association with the development of the railways below Fort York to the immediate north of the study area.

The property lies within the Iroquois Plain physiographic region (Chapman and Putnam 1984), which is the former bed of glacial Lake Iroquois. In the Toronto area, the Lake Iroquois strand is situated approximately 4.5 kilometres inland from the current Lake Ontario shore. Below the strand, the Quaternary sediments are dominated by outwash sands typical of nearshore deposits. The balance of the plain, towards the modern lake shore, is dominated by fine sediments of silt and clay, typical of off-shore deposits, overlying till (Chapman and Putnam 1984; Gravenor 1957).

Glacial Lake Iroquois came into existence by about 12,000 B.P, as the Ontario lobe of the Wisconsin glacier retreated from the Lake Ontario basin. Isostatic uplift of its outlet, combined with blockage of subsequent lower outlets by glacial ice, produced a water plain substantially higher than modern Lake Ontario. Beginning around 12,000 B.P., water levels dropped stepwise during the next few centuries in response to sill elevations at the changing outlet. By about 11,500 B.P., when the St. Lawrence River outlet became established, the initial phase of Lake Ontario began, and this low water phase appears to have lasted until at least 10,500 B.P. At this time the waters stood as much as 100 metres below current levels. However, isostatic uplift was already raising the outlet at Kingston so that by 10,000 B.P., the water level had risen to about 80 metres below present. Uplift since then has continued to tilt Lake Ontario upward to the northeast, propagating a gradual transgressive expansion throughout the basin. The flooded mouths of creeks and rivers that rim the basin–such as are preserved at Grenadier Pond and the mouth of the Humber (and which likely existed at the mouth of Garrison Creek to the northwest of the study area)–provide visible reminders of this process (Anderson and Lewis 1985; Karrow 1967:49; Karrow and Warner 1988, 1990).

In the vicinity of the study area it has been estimated that 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 at the time of the founding of York in the 1790s.

The forests out of which York was carved had become established shortly after 7,000 B.P. Under median moisture regimes and eco-climates the climax forest of the Toronto lakeshore region was likely co-dominated by hard maple (*Acer saccharum*) and beech (*Fagus grandifolia*), in association with basswood (*Tilia americana*), red oak (*Quercus rubra*), white oak (*Quercus alba*), shagbark hickory (*Carya ovata*) and bitternut hickory (*C. cordiformis*) (Hills 1958; Burgar 1993).

# 2.2 The Pristine Nineteenth Century Lakeshore

Early mapping of the Toronto waterfront indicates that prior to the lake filling projects of the midnineteenth through early twentieth centuries, the position of the lakeshore varied from approximately 50 to 150 metres to the south of the present alignment of Front Street. Consequently, throughout much of the Toronto waterfront, the original shoreline lies buried beneath the present railway tracks south of Front Street. In the immediate vicinity of the study area, however, the shore swung to the southwest. Running roughly diagonally across the northwest corner of Block 36 to the northwest of the subject property, it crossed the Bathurst Street right-of-way to continue roughly parallel to the southern limits of the Fort York Boulevard right-of-way, forming a slight embayment to the southwest of Fort York. The original location of the shoreline below the fort was confirmed in one locale to the immediate west of the present study area during a recent archaeological assessment (ASI 2002).

A distinctive feature of the nineteenth century shore was its narrow limestone shingle beach, just wide enough for the passage of vehicles, lying below six to eight metre high shore cliffs (Historica Research Limited 1989:50). Garrison Creek emptied into Lake Ontario near the northwestern corner of the study area, its course entrenched within an outwash valley that was marked by level peninsulas or promontories on either side of its mouth that were defined by the steep slopes of the lake shore and the Garrison Creek ravine. It was on the west bank that the first and third (1793-present) Fort York complexes were built. The second fort complex (circa 1797-1813) stood on the promontory on the east side of the creekmouth, partially within Block 36.

The estuary of the creek likely provided an environment in which a variety of food resources were available to any aboriginal or early Euro-Canadian occupants of the region. Salmon, for instance, were reported in some abundance prior to alterations of the watercourses due to the clearance of the local forest cover (Scadding 1873:36). Early nineteenth century maps depict several other minor stream outlets along the shore of the lake to the west of the fort, however, the inland paths of these streams are not indicated.

Despite the fact that the Toronto lakeshore in general, and more particularly the mouths of the creeks and rivers flowing into it, would have been extremely attractive to precontact aboriginal peoples, the potential for the recovery of precontact aboriginal material within the study area is essentially nil. Sites dating to the circa 5,000-3,000 B.P. period, when it is possible that the Lake Ontario shore corresponded roughly with the location of the Block 7 subject property, are unlikely to have survived the historic development activities (i.e., dredging, wharf bed levelling, filling, etc.) that have disturbed the original topography of the lakebottom.

## 2.3 The Development of the Queen's Wharf

#### 2.3.1 Background

During the early period of the development and expansion of the waterfront, 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 near the foot of Dufferin Street. The lakefilling operations during the mid-to late nineteenth century generally used the "crib and fill" technique. Timber cribs were placed around the perimeter of the area to be filled. These networks of cribs, basically a series of timber frame boxes reinforced by cross members, were to be set in 11' of water, with an additional four feet remaining above the water line. The cribs, which were built using 10-15' timbers, were assembled in shallow water and towed to their final site, where they were moored until they were to be sunk after the lake bottom had been sounded, levelled and cleared of debris (Bovey 1881:269).

Wharves and piers were essentially built in the same manner, although in these cases, the cribs served as the foundations for the working surface of the structure which extended out into the lake. 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, these members, and the superstructure above the crib only had a life expectancy of 10 to 25 years (Bovey 1881:268).

The cribs were sunk by laying heavy platforms on their surfaces and piling rock on them. Due to the shallowness of the lakebottom sediments overlying bedrock along Toronto's waterfront, deeply-driven piles could not be used to anchor the cribs. Instead, rock ballast was used to fill each crib once it had been sunk into position. In lakefilling projects, the fill used on the landward side of the cribs to create the new lands for development included sewage, municipal waste, material from construction sites, and material dredged from the harbour bottom.

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 to show a continuous and unbroken facing of timber" (MPP 1987: Appendix D:2). These requirements were repeated in the 1856 Esplanade specifications (MPP 1987: Appendix E:2) and, to some extent, reflect aesthetic concerns and a desire to provide a neat and well-finished structure. It is likely that many of the public wharves on the waterfront were also built with superstructure facades of similar quality. Upon this superstructure would sit any buildings, rail lines or other facilities that were required.

# 2.3.2 The Queen's Wharf

In comparison to the waterfront lands in the heart of the Town of York, commercial activity was relatively slow to develop west of Spadina, despite the fact that the military had begun relinquishing its hold on the Garrison Reserve in the 1830s. However, the Queen's Wharf (1833-circa 1918) located at the foot of Bathurst within the areas now designated Blocks 36, 37, and 8 on the east side of Bathurst and Block 7 on the west side of Bathurst, was an important facility in the area, serving commercial and, to a much lesser extent, military interests.

Originally known as the "New Pier", the Queen's Wharf was first constructed in 1833, on the eastern side of Garrison Creek's outlet, at the mouth of Toronto Harbour. A smaller wharf on the site was in use from circa 1800 to circa 1813. In addition to functioning as a docking and cargo handling facility, the wharf was also intended to hinder the growth of the offshore sandbar that continually threatened to block of the entry to Toronto's port. It was intended that the wharf would sufficiently alter the pattern and velocity of the water flowing west between the lake shore and the Toronto Islands so as reduce further deposition of sands (Hart n.d.:4).

The 1833 structure measured approximately 724 feet in length and 24 feet in width (Historic Horizon 1994:4). A public road ran from the foot of the wharf to Bathurst Street. The wharf was lengthened, in 1837, to 800 feet so as to reach waters that were 10 feet deep, and a 240 foot long eastern pierhead was added at the same time. These changes allowed the wharf to service larger vessels. The year 1837 also coincided with the renaming of the structure as Queen's Wharf, in honour of Queen Victoria's ascension to the throne. The wharf did succeed in slowing the growth of the sandbar and the increase in water velocity also kept this portion of the harbour ice-free longer into the winter (Heart n.d.:5). By 1839, it is possible that there was a lighthouse on the wharf (Heart n.d.:6), located at the apex of the main pier and the eastern pierhead as is depicted in several paintings of the 1840s. It is also likely that a rail system had been installed on the wharf, by 1838, to draw carts back and forth as vessels were loaded and unloaded (Heart n.d.:41).

In 1850, the first Harbour Commission was formed and one of their first tasks was to address the decay and increasingly apparent limited capacity of the Queen's Wharf. In addition to carrying out such repairs as were found necessary, the commissioners ordered that the wharf be widened by 40 feet on either side and that a 400 foot pierhead be extended westward from the end of the wharf (Heart n.d.:7-8). This latter construction work took place between 1853 and 1856. By the early 1860s, the wharf boasted numerous structures, including a range light, a lighthouse, and a light keeper's house, in addition to store houses, which were later replaced by a grain elevator. The *Grand Trunk Railway* had a spur line running onto the west pier head and a turntable. A lighthouse, designed by Kivas Tully, was placed on the north side of the west pierhead<sup>1</sup>. In 1863, the western pierhead was extended another 200 feet west, and by 1867, a second lighthouse was constructed at the end the pier (Heart n.d.:7-8). Figures 2 and 3 reproduce contemporary views of the wharf.

In the late 1880s, a 450 foot breastwork of cribbing was built extending northward from the west end of the pier towards the shore. The waters between this crib and the original pier were filled with dredgings from the sandbar, which continued to be a problematic harbour feature (Heart n.d.:42). As a result of this campaign of filling, which created a very large area of new land, shipping activities were confined largely to the eastern and southern sides of the wharf.

<sup>&</sup>lt;sup>1</sup> This structure was relocated to 651 Fleet Street, in 1929, after the wharf finally went out of use.

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Figure 2: "Queen's Wharf Looking West" (reproduced from Robertson 1896: Volume 2:682). The Queen's Wharf is in the background. The wharves in the foreand middleground are Northern Railway structures.

Further efforts to halt the progress of the sandbar in the 1890s were unsuccessful and dredging the harbour mouth was more or less a constant activity, due to the sandbar, and the accumulation of silt and sewage discharge from the Bathurst Street and Garrison Creek sewers. Moreover, vessels of ever greater draught were



Figure 3: *Bird's Eye View of Toronto*, 1876, showing the Queen's Wharf (left), Old Fort York, the railway yards and some of the Northern Railway piers along the waterfront.

operating in the Great Lakes, but these could not negotiate the western entrance to Toronto Harbour. The dredging operations had reached bedrock; there was simply no way to increase capacity in this area. Work on a new channel for the western harbour entrance, located 300 metres further south began in 1905 and was completed in 1912 (Heart n.d.: 42-43). Another concerted phase of filling in the area of the Queens' Wharf was initiated in 1913 to extend the shoreline southward (Historica Research 1983). Lake filling operations continued throughout the First World War, extending the shoreline to what is now Lakeshore Boulevard. Following World War I, construction of the "High Line" began in order to separate the road and track crossings along the waterfront. This was accompanied by a new campaign of lakefilling. The grade separation was designed to take place between Bathurst Street and the Don River. The grade design of the High Line required another major campaign of filling along the waterfront, in order to raise the tracks approximately five metres above the existing grade. Much of this work was undertaken by the Toronto Harbour Commission, which also extended the shoreline somewhat south of the area required by the railways, in order to provide additional, new industrial land. These costly and time-consuming operations were not completed until 1929 (Historica Research 1983:57-58).

Thus the present shoreline of the harbour was achieved during the 1920s, pushing the active waterfront well to the south of the study area. The harbour fill, and that used to raise the elevation of the railway corridors, is composed of material from borrow pits located in Scarborough, as well as material that was dredged from the harbour (Historica Research 1989:64). The elevated grade of the modified railway corridor was accomplished primarily through establishing embankments with the appropriate slopes. Retaining walls, similar to harbour cribs, were not generally required.

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In 1911-1912, the Toronto Harbour Commission had developed a plan for use of the expanded waterfront that included a largely industrial precinct at the foot of Bathurst Street. The Loblaws Groceteria Company building located at 500 Lakeshore Boulevard, the main four-storey block of which was built in 1927, was one of the first buildings raised at the west end of the harbour as part of the Toronto Harbour Commission's development plan. The initial construction of the building exposed piers associated with the Queen's Wharf (Figure 4). Development on Block 7 included a small structure located in the north central portion of the property that appears on the 1923 Goad's Atlas map



Figure 4: Exposure of remains of the Queen's Wharf during the 1927 construction of the Loblaws building at 500 Lakeshore Blvd. West. Toronto Port Authority Archives (PC 1/1/7390).

of the area and later on, the construction of a large building identified as the Standard Radio Manufacturing Company Limited, which appears on a 1935 map of the area (Historic Horizon 1994:51). The site has been used for a variety of industrial and commercial purposes since that time.

# 2.4 Mapping the Queen's Wharf

Numerous cartographic studies of the evolution of Toronto's urban core have been completed in an effort to establish the locations of former built and landscape features. Examples of large scale projects of this type that encompass the present study area or its environs include Brown (1986), du Toit, Allsopp, Hillier (2000) and ASI (1992, 2003, 2005a, 2005b, 2005c), which have proceeded by overlaying historic maps on the modern streetscape, using common reference points between the various sources. Each of these studies has produced slightly different results. There are numerous potential sources of error inherent in such a process, 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 this instance, there is considerable variation in all dimensions. In ASI's 2005 studies, it was therefore concluded that it is neither possible nor desirable to reduce estimated locations of any particular phase of the Queen's Wharf to a single line. Likewise, it is rarely possible to plot individual built features for which there are no surviving surface indications as single points. While such an approach has been adopted by larger scale studies out of necessity, it conveys a degree of precision that is both artificial and unwarranted.

Accordingly the mapping of the location of the wharf and its associated features undertaken by ASI in 2005, constituted a series of nineteenth century map overlays (using between seven and twelve different

maps, some of which are reproduced in Figure 5) which were then used to produce a more generalized composite map outlining the various phases in the development of the wharf (ASI 2005a, 2005b, 2005c). The discovery of the remains on Block 7, the majority of which constitute part of the 1853-1856 western pierhead has demonstrated the efficacy of this approach and permitted further assessment of the accuracy of the different original map sources, as these remains were found within only a few metres of their predicted location as derived from the unattributed map entitled *Sections through the Old Fort on the lines. Reduced from Sections signed by W.J. Renwick, Capt. R.E. 1<sup>st</sup> March 1854, and the 1884 Goad's Atlas mapping* (Figure 6). Interestingly several other 1850s period maps, such as Alexander Gordon's 1853 *Plan Shewing the filling in of the deep water and formation of docks East and West of the Queen's Wharf* and his 1855 *Sketch of the Old Fort, showing... the ground taken, and filled in by the Grand Trunk Railway Company* depict the main north-south as being far shorter than it in fact was. These findings will lead to further refinements in the potential mapping for other properties within the Fort York Neighbourhood Area (e.g., ASI 2006).

# 3.0 MONITORING AND DOCUMENTATION OF THE REMAINS OF THE QUEEN'S WHARF

### 3.1 Introduction

Site inspection, monitoring and documentation activities were undertaken at the site on March 15, 22-24, and 28-31, 2006.

The construction excavations resulted in the full exposure of six of the cribs that underlay the western pierhead, and the partial exposure of four others, including one that comprised part of the wider western terminus of the 1850s pierhead and three that likely represent the 1863 extension of the pier. One complete crib on the east side of the property had been removed prior to the onset of this project, while elements of another were visible in the face of the excavation under Bathurst Street.

Measured drawings of three of the 1850s cribs were prepared (Figures 7 -9) and the remaining fully exposed sections were examined to confirm that they corresponded in terms of their essential attributes. Meaurements and observations concerning details of the partially exposed remains, which were located at the west end of the site, were made to the extent that was possible or necessary. This portion of the property formed the active excavation area at the time of monitoring and was further compromised by the presence of a series of concrete footings related to the twentieth century development of the property that lay atop the crib work.

At the same time that the monitoring was undertaken, Malibu Investments made arrangements for the removal of a portion of the wharf and its transfer to Fort York. The elements that were transferred included several sections of timbers that preserved attributes of the joinery and the uppermost courses of the northeast corner of Crib 2 (Figure 7). At the instructions of Fort York staff, these remains were relocated to open ground located below the ramparts of the fort on the north side of Fort York Boulevard.



Bonnycastle 1833



After Renwick 1854





Cane 1842





Boulton and Boulton 1858



1878 Atlas



Goad 1884







General Plan of Arrangements 1853



Waterlow & Sons 1860

BASE MAPPING: VARIOUS SOURCES VARIOUS SOURCES ASI PROJECT NO.: 05SP-51 DRAWN BY: DAR DATE: OCTOBER 6, 2005 FILE: 05SP-51 HISTORIC MAPAI



Figure 6: The Location and Configuration of the Queen's Wharf as Derived from Nineteenth Century Map Overlays and the Area of the Remains Documented During Construction



Figure 7: Archaeological Documentation of the Queen's Wharf within Block 7





Figure 9: Composite Elevation views of the Queen's Wharf c. 1850 section, "Cribs 2-8", Block 7, Fort York Neighbourhood, City of Toronto

## 3.2 Elevations

Prior to the current redevelopment, the grade of the south half of the property in the area of the wharf ranged between 76.8 and 77.2 metres ASL. The profiles exposed along the edge of the excavations suggest that, formerly, the waters of the lake stood roughly 2.20 metres lower than the modern grade, that is, between approximately 74.6 and 74.9 metres ASL. Historic documentation from the 1861-1914 period indicates that the 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 (Historic Horizon 1994:75). The present mean annual lake level is 75.2 metres ASL (Andreae 1989:4).

Soundings recorded on Bonnycastle's 1833 *Plan of the Town and Harbour of York and the Military Reserve* indicate that the lake was in the order of 12 to 13 feet (3.7 to 4.0 metres) deep in the area of the future location of the west pierhead of the Queen's Wharf. The documented crib remains stand to a height of approximately 10 feet (at an elevation of approximately 75.3 to 75.6 metres ASL) above the lakebottom sediments on which they rest. These elevations clearly indicate that the remains documented during this project largely comprise the submerged portions of the pierhead, thus accounting for the near total lack of any in situ elements related to the superstructure of the wharf, such as the continuous facing timbers that would have shown above the water, decking, the railway bed or foundation elements of the various structures that were likely erected on the pierhead.

### **3.3** Construction Attributes

#### 3.3.1 The 1850s Cribwork

The cribs making up the 1850s east-west foundation of the pierhead (C2-C8, C10) measured 42' in length from north to south and 21' in width from east to west (Figures 7-11). The individual cribs consisted of a central 21' cell, flanked on its north and south sides by cells that measured 10' 6" in width and 21' in length. These cribs were separated from one another by distances ranging from three inches to almost two feet. These gaps were filled with densely packed lengths of roundwood poles, scrap lumber and other debris. Cribs 4 to 8 stood to a maximum height of ten feet, being composed of 11 courses of 11" square white pine timbers. The cribs were set directly on levelled lake clay, although in two instances (on the north side of Crib 2 and the east side of Crib 5) a large glacial erratic, seemingly in situ, was found underneath the lowermost timber, apparently having been used to balance the crib.

The bottom three courses of timbers were separated from one another by gaps of three to four inches. Those higher up were laid flush atop one another. An unusual feature of these cribs was that none was built with any sort of floor.



South face of the exposed 1850s crib work.



View of the partially exposed northwest end of the 1850s pierhead.



View east across the exposed 1850s crib work.



View of the partially exposed 1860s crib work.

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Roundwood and scrap fill between two 1850s cribs.



Treenailed dovetail on a timber from the 1850s crib work.



Clay beneath the "deck" in the central cell.



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DRAWN BY: DAR FILE: 06SP-23

Despite being composed of three distinct cells, each crib was built as a fully integrated structure. Every third or fourth face timber along the east and west walls was a continuous 42' long beam. Where shorter lengths of timber were used along these faces, they were butt joined and anchored with 1" square iron rods three feet either side of the join. Although the butt joined timbers were of various lengths, they were arranged so that they occurred in a step pattern up the face of the wall, presumably for load-bearing purposes. The corners of the central cells were lap joined with 1' long  $1\frac{1}{2}$  to 2" square hardwood (likely white oak [cf. Bovey 1881]) treenails. Internal structural support within the central cells was provided by central 11" square tie back timbers that were mortised into the east and west face walls between the first and second, third and fourth and fifth and sixth courses. Another unusual feature of the central cribs was that at the level of the seventh and eighth courses, a "deck" comprised of two layers of 11" square timbers had been laid east west across the crib. These timbers were not, however, fixed into the structure with any sort of hardware or joinery. Only the presence of additional courses of face timbers above them served to anchor them in place. The fill below this deck consisted of homogeneous fine bluish-grey silty lake clay. Rock ballast lay atop the "deck." The function of this "deck" is uncertain. It likely lay below the railway bed known to have been on the surface of the superstructure, but it would not have served any loadbearing purpose, as the beams were oriented parallel rather than perpendicular to the line of the tracks. It is possible, in the absence of crib flooring, that this deck is related to the original process of sinking the

The north and south flanking cells measured 21' in length from east to west and 10' 6" in width from north to south. The outer corners of these sections were joined using simple and bevelled dovetails that were treenailed. Internal support was provided by 11" square tie backs set at horizontal intervals of four feet and vertical intervals of three feet and were anchored into to the face walls using mortise and tenon joints secured with tree nails. These portions of the cribs were ballasted with granite cobbles and blocks.

The wider section (Crib 9) at the west end of the 1850s pier was only partially exposed in a manner that permitted documentation. This crib, located immediately north of Crib 8, was built using 12'' square timbers and consisted of an internal cell measuring 21' east-west and 15' north south, which was articulated with another face wall measuring 26' north south that joined into another east-west wall located a further 11 feet to the north. This internal cell also featured the two course deck of 11'' square timbers, although in this case it was located at the level of the fifth and sixth courses. Vestiges of vertical planking had survived at the southwest and northeast corners of the internal crib. These measured 3x12'' and were butted flush one to the next. This planking was the only element encountered that may represent the remains of carpentry that extended above the water line.

The remains of a 4x8'' vertical brace or support was observed on the interior side of the west face wall of the wall of the 21x15' crib. All joinery within this portion of the wharf was consistent with that observed in Cribs 2-8.

#### 3.3.2 The 1860s Cribwork

cribs (cf. Bovey 1881:270).

Few remains of the 1860 extension of the pierhead could be discerned in large part because of the fact that this portion of the site was subsequently occupied by a building, most likely that first noted on the 1935 mapping that had been built using massive concrete footings and piles placed on top and through the

cribwork. Only four courses of timbers in the westernmost Crib 12 had survived this later occupation. Crib 11 survived to a height of 10 courses. The timbers that could be examined along the south face of the extension consisted of a mixture of 10", 11", and 12" square timbers. It is assumed that the cribs in this section were constructed to approximately the same dimensions as the 1850s structure, but this could not be confirmed. Again, the joinery was consistent with the earlier section.

# 3.3.3 Twentieth Century Remains

A series of eight piles, each consisting of seven to nine round 9-10" posts, had been driven into the twentieth century lakefill south of the wharf and southeast of the concrete footings. These formed two parallel rows separated by a distance of 18 feet, which was also the interval between piles within each row.

# 3.3.4 Other Materials

Part of a piling, consisting of a 12-16" diameter log that was approximately 12' long, with a sharpened end below the stubs of its trimmed branches, was observed in the vicinity of Cribs 3 and 4 among the elements that had been removed from their original context. This item is undoubtedly associated with the wharf or its ancillary features, but its original

location is not known.

Two sections of rail were observed among stock piles of later scrap metal collected from the site during the initial excavations. One of these (Figure 12) was a piece of 63 pound Grand Trunk Railway U-rail that dates to the 1850s (Andreae 1997:24). The other was a section of a 56 pound T-rail that likely dates to the 1860s (C. Andreae, personal communication, 2006).





### 4.0 CONCLUSIONS AND RECOMMENDATIONS



Archaeological monitoring of construction excavations within Block 7 in the Fort York Neighbourhood, City of Toronto, resulted in documentation of a significant portion of the west pierhead of the the Queen's Wharf, which was first built as an extension to the 1833 main pier located east of Bathurst Street, in 1853-1856. This section of the wharf remained in operation until the early twentieth century, during which period it was subject to several further modifications and expansions. The structural remains encountered on the property almost exclusively consisted of foundation cribs.

In terms of their overall general construction, the cribs are comparable to the standards of contemporaneous and later public and private waterfront structures. These include, among others, the Esplanade, which has been documented in several locations along the waterfront (e.g., SkyDome [MPP]

1987], the Metro Toronto Convention Centre [ASI 1995] and at the Gooderham & Worts distillery [ASI 2000]), Reeses Pier at Metro Toronto Convention Centre (ASI 1995), and the later nineteenth century structures documented at the SkyDome site (MPP1987).

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

- 1. The study area may be considered free of further archaeological concern.
- 2. In the event that deeply buried archaeological remains are found on the property during construction activities, the Heritage Operations Unit of the Ministry of Culture should be notified immediately.
- 3. In the event that human remains are encountered during construction, the proponent should immediately contact both MCL, and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer and Business Services (416) 326-8404.

The documentation related to this archaeological assessment will be curated by Archaeological Services Inc. until such a time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the project owner(s), the Ontario Ministry of Culture, and any other legitimate interest groups.

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