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WEST HARBOUR PIERS 6 TO 8 ENVIRONMENTAL ASSESSMENT
CITY OF HAMILTON

Stage 1: Archaeological Background Study
Final Report (Original)

Part Lots 14 and 15, Broken Front Concession,
in the historic township of Barton, Wentworth County,
now within the City of Hamilton

P359-0015-2016
(20th May 2016)
WEST HARBOUR PIERS 6 TO 8 ENVIRONMENTAL ASSESSMENT
CITY OF HAMILTON

STAGE 1: ARCHAEOLOGICAL BACKGROUND STUDY

FINAL REPORT
Original

Property Location
Part Lots 14 and 15, Broken Front Concession, in the historic township of Barton, Wentworth County, now within the City of Hamilton

Submitted to:
Ontario Ministry of Tourism, Culture and Sport

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20th May 2016
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WEST HARBOUR PIERS 6 TO 8 ENVIRONMENTAL ASSESSMENT  
CITY OF HAMILTON  

STAGE 1: ARCHAEOLOGICAL BACKGROUND STUDY  

EXECUTIVE SUMMARY

Fisher Archaeological Consulting (FAC) was retained by the City of Hamilton, to undertake the Archaeological Stage 1 Background Study as part of the West Harbour Piers 6 to 8 Environmental Assessment, City of Hamilton. The project is in preparation for subdividing the Pier 6 to 8 properties by the City. The Study Area includes the whole of Piers 6 to 8 and the intersection of Guise Street with Catharine Street and Dock Service Road, abutting the southeast corner of Pier 8 (Figures 1 and 2). This intersection portion of the Study Area consists of road right-of-ways (ROWs), that on the southwest corner being up to, but not past, the break in slope.

The Study Area is located on Part Lots 14 and 15, Broken Front Concession, in the historic township of Barton, Wentworth County, now within the City of Hamilton. The Study Area is approximately 659 metres in length (east-west) and extends approximately 463 metres north, covering the shoreline and infilled piers, both of which have been heavily modified since the early 19th century. The piers are currently utilized for a wide variety of industrial, commercial, recreational and institutional purposes, including but not limited to: shipping, coast guard and other law enforcement agencies, the Navy League, recreational boating and restaurants.

The background research indicates that the original shoreline followed more or less along the edge of Guise Street at the southern boundary of the Study Area, and is raised approximately four metres above Lake Ontario with a shallow beach at the foot in places. As such, it would have been utilized by Aboriginal peoples for a variety of activities including habitation, hunting, fishing and travel. Since the arrival of the Europeans, the shoreline hosted multiple industries associated with lake transportation, fishing, ice collection and commerce. The Hamilton Harbour wharf complex that includes the Study Area was the primary port for the City from the early 1800s until the mid-20th century, by which point the industrial piers were well established at the east end.

The background research, including an examination of previous borehole studies, and property inspection have indicated that the only remaining areas with high potential for Aboriginal archaeological material is at the southern side of the Guise Street ROW at it intersection with Catharine Street (see Figure 23), where the level of modern disturbance to the original shoreline has not yet been confirmed. The intersection of Guise and Catharine Streets, and Dock Service Road, is at the base of slope with the natural ridge forming the southwest corner of the ROW. This section includes the former road footprint of Catharine Street (now closed between Guise and Brock Streets). The ROW has been extensively disturbed in the past through the installation of utilities, sidewalks, roads, and infilling on its north and east sides, however there may be pockets of undisturbed land, within the southwest and south portions of the intersection. These retain high potential for both Aboriginal and Euro-Canadian sites, unless they have also been extensively disturbed in modern times. The remainder of the original shoreline within the Guise Street ROW and the southern edges of Piers 6 to 8 has been extensively disturbed due to modern landscaping, utility and construction events, and has low potential for archaeological resources.

However, due to the important role the early wharf complexes played in the development of Hamilton and the Great Lakes shipping industry from the early 1900s into the early 20th century, the historic wharf
complexes within Piers 6 to 8 have archaeological potential. The general area of potential has been determined to be that of the wharf complexes up to and including the 1915 shoreline, as indicated on Figure 23.

Therefore, based on the archaeological Stage 1: Background Study, FAC makes the following recommendations for the Hamilton Harbour Piers 6 to 8, and the Guise and Catharine Streets intersection:

1) that the Study Area indicated to have potential for Aboriginal or early Euro-Canadian archaeological material associated with the former shoreline as outlined on Figure 23, be subjected to Stage 2: Assessment through shovel testing, with the understanding sections may be determined to have no potential based on in field discoveries of extensive modern disturbance;

2) that the Study Area indicated to have potential for intact remains of the 19th to early 20th century wharf complexes, as indicated on Figure 23, be monitored during construction for documentation of any resources with CHVI;

2A) that the archaeologically sensitive area around Building 16, as per Figure 23, be monitored during construction with the understanding that extensive archaeological investigations, including manual or machine excavation of in situ deposits and detailed documentation of soil layers and/or features, may be required.

2B) Since the projected construction activities will be conducted over a number of years and by various proponents, including the City of Hamilton (hereinafter referred to as “the City”), it is recommended that the City flag the monitoring zones in such a manner that any ground disturbing activities conducted within those zones have to meet the archaeological condition prior to commencement. This condition would be an agreement to include archaeological monitoring as per the Construction Contingency Plan outlined here, or in such a manner as agreed to between the proponent, archaeological consultant, MTCS and the City for the specific project.

The ongoing determination of CHVI throughout the project length recognizes the archaeological and historic significance of wharves while at the same time acknowledging the redundancy inherit in detailed recording of every individual subsurface wharf feature. Since the extent of intact structural remains, whether subsurface wharf components only or superstructure remnants also, cannot be determined until below grade examination is possible, it is recommended that as work is conducted in those areas recommended for monitoring on Figure 23, the licensed archaeologist may make additional and/or corrective recommendations regarding the proposed work elsewhere in the Study Area based on their findings.

CONSTRUCTION MONITORING CONTINGENCY PLAN

When archaeological sites are expected or have been identified in deeply buried conditions as per Section 2.1.7 Standard 4b of the Standards and Guidelines for Consulting Archaeologists (MTCS 2011).

1) Monitoring of construction activities has been recommended for all areas within the Pier 6 to 8 footprint where there is high potential for historic wharf complexes to be extant beneath the current grade (April 2016). A licensed archaeologist(s) will be retained by the proponent and must have access to the areas being excavated to monitor for cultural features (e.g. wharves, buildings foundations, sunken ships) or cultural deposits with
archaeological material. Prior to construction a copy of this report will be made available to the project archaeologist and to the proponent by the City of Hamilton, and the specific monitoring goals for that construction component discussed and a monitoring schedule arranged.

2) If archaeological resources are identified, all construction activities must cease in that area, and the archaeologist(s) must have safe access to the construction area in which the resources are found in order to examine and document features, and find and remove associated artifacts.

The construction contractor will provide the project archaeologist up to 80 hours of site access to conduct detailed documentation of any exposed archaeological features of cultural heritage value or interest. The construction contractor shall make available crew and machinery as necessary to assist the archaeologist with removal of fill material and to expose archaeological features in order to assess and document them.

3) The construction contractor and site foreman shall make the construction crews aware that there is to be no trading, selling or distribution of glass or ceramic bottles or other artifacts on the work site.

4) The construction contractor and site foreman shall be made aware of the need for archaeological monitoring, and will inform the project archaeologist, of the projected construction schedule, providing them with 48 hours notice prior to the actual construction excavation of this section. The project archaeologist shall be made aware of any safety concerns associated with the construction work in this section in order to meet site health and safety requirements.

5) Should archaeological material be discovered during construction outside of these monitored areas, or when the project archaeologist is not present, the project archaeologist should be contacted to determine the significance of the material.

The proponent will confirm scheduling with the archaeological consulting company prior to the commencement of operations, as per Section 7.9.9 Standard 1c.

3) that the Study Area indicated as having low archaeological potential on Figure 23, be considered free of further archaeological conditions.
1.0 PROJECT CONTEXT
The following is a Stage 1 report, prepared for review by the Ontario Ministry of Tourism, Culture and Sport (MTCS). Archaeological consultants, licensed by MTCS, are required to follow the Standards and Guidelines for Consulting Archaeologists (MTCS 2011) during land use planning as part of the evaluation of cultural heritage resources. This includes reporting all findings to MTCS. There are four stages for archaeological work — Stages 1 to 4.

Stage 1  Background research and Property Inspection. The purpose of the Stage 1 archaeological study is two-fold. Firstly, it is to determine the potential for the presence of as yet undocumented cultural heritage resources, and secondly, to determine whether known cultural heritage resources are extant on the subject land(s).

Stage 2  Field work. Stage 2 is the actual field examination of high potential areas, and involves either surface survey of ploughed fields or shovel testing in areas that are undisturbed or cannot be cultivated.

Stage 3  Testing. The purpose of the Stage 3 is to ascertain the dimensions of the site, its cultural affiliation (if possible), and to evaluate its significance. If the site in question is determined to be archaeologically significant, then appropriate mitigation measures will be decided upon.

Stage 4  Mitigation. Stage 4 involves the mitigation of the development impacts to the archaeological site through either site excavation or avoidance (preservation).

Stage 1 determines the amount of Stage 2 work required. Stage 2 determines if Stage 3 is warranted, and Stage 3, in turn, determines if the archaeological resources are significant and warrant a full excavation (Stage 4) or if the site may be preserved. This report solely relates to the Stage 1 level of this archaeological process.

All work was conducted under archaeological licence P359. The Stage 1: Background Study pertains to project information number P359-0015-2016.

1.1 Development Context
Fisher Archaeological Consulting (FAC) was retained by the City of Hamilton, to undertake the Archaeological Stage 1 Background Study as part of the West Harbour Piers 6 to 8 Environmental Assessment, City of Hamilton. The project is in preparation for subdividing the Pier 6 to 8 properties by the City. The Study Area includes the whole of Piers 6 to 8 and the intersection of Guise Street with Catharine Street and Dock Service Road, abutting the southeast corner of Pier 8 (Figures 1 and 2). This intersection portion of the Study Area consists of road right-of-ways (ROWs), that on the southwest corner being up to, but not past, the break in slope.
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FAC was granted permission from the City of Hamilton to enter the Study Area for the Stage 1 Property Inspection which was conducted on 22 March, 2016.

1.2 Archaeological Context

The natural landscape of this portion of Hamilton can be described as a relatively smooth descent from the foot of the Niagara Escarpment north towards the waterfront where the original shoreline, which once had a steep slope at the water’s edge, can still be seen in some areas. The neighbourhood south of the piers provides evidence of this old shoreline through the cut-in and gently sloping roads; the intersection of Guise and Catharine Streets is on this former shoreline. The general topography of Piers 6 to 8, once off the shoreline slope, is relatively flat and comprised mainly of infilled land and modified wharves and piers.

Physiographic features in and around the Study Area were analyzed as they would have influenced transportation routes, gathering places, food sources, climate (micro-environments), overall vegetation patterns, soil formation and determined the presence or absence of lithic resources.

1.2.1 Soils and Bedrock

The topography of southern Ontario is primarily formed by glacial and post-glacial action. The ancient Lake Iroquois, in existence around 12,000 years ago, was created as the Ontario lobe of the glacier withdrew easterly, and covered present-day Lake Ontario and surrounding area, though it did not exceed past the Niagara Escarpment (Karrow & Warner 1990:15). The shoreline was approximately “365 feet a.s.l. at Hamilton [and rose to] 700 feet east of Stirling, which mostly is due to uplift since the draining of the lake” (Chapman and Putnam 1984: 37). The Iroquois Plain was formed after the last glacier receded and Lake Iroquois drained to the east. It “extends around the western part of Lake Ontario, from the Niagara River to the Trent River, a distance of 190 miles, its width varying from a few hundred yards to about eight miles” (Chapman and Putnam 1984: 190). The Iroquois beaches stretching between Queenston and Toronto are calcareous siltstone shingles from the local shale, limestone gravel and “the inevitable sprinkling of granite, quartzite, etc., from the Canadian Shield” (Chapman and Putnam 1984: 78). There are a few sand beaches along this strip, and a sandy barrier beach cuts off the Hamilton Harbour from Lake Ontario. Hamilton Harbour is within a lacustrine plain, namely comprised of various sands.

The Study Area is comprised predominantly of infill materials with natural soils being restricted to the former shoreline edge and the former lake bottom beneath the infills. It is probable that the natural

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1 Portions of the background sections have been adopted from previous reports by the same authors (FAC 2014a and 2016), and amended to reflect the current Study Area.
soil consists of sandy loam and sand soils. Two different sources describe the lake bottom soils beneath Pier 8, the largest portion of the Study Area. The first source refers to Plan No. 3312, Sheet 1 plan from the 1947 “As Built” drawings from Public Works Canada. This sheet provided borehole data depicting the lake bottom stratigraphy. Depth of water at that time by Pier 8 was approximately 5.8 to 7.5 metres. From the top of soil down, there was a layer of soft, fine and loose silt sand that was approximately 3.7m thick. Below this was a “clay blue soft” about 1m thick, with a “clay blue stiff” below that (Shoreplan 2008: 11).

The second is based on the 2013 report titled Pier 8 - Structural Analysis of East End of North Wall after Geotechnical Investigation by Shoreplan Engineering Limited (Shoreplan), it was noted that below the slag fill used to build Pier 8 in the 1960s were three soils layers – silt, clayey silt and a silty clay. The silt was at an elevation [International Great Lakes Datum or IGLD 1985] of 71.1m, the clayey silt at 60.9m, and the silty clay at 55.9m (Shoreplan 2013: 2). They also noted that “Pier 8 was constructed by lake-filling using slag and other fill” (ibid). Both of these sources note a loose silt/silty sand at the top of the lake bottom, with an increase in clay and compaction as the boreholes continued in ground. The lake bottom beneath Piers 6 and 7 is assumed to be the same consistency.

**Borehole Information**

Boreholes and monitoring wells have been drilled across the Study Area in recent years, and their results provide a glimpse into the current stratigraphic conditions. Those within the south and east portions of the Study Area (ie not within the 1960s development section of Pier 8) were examined and their results are summarized on Figure 3a and in Table 1 below. The boreholes also tested the soils for contaminants and found petroleum hydrocarbons (PHC), polycyclic aromatic hydrocarbons (PAH), volatile organic compounds (VOC), and polychlorinated biphenyls (PCB); all or some of these were present to some degree in all boreholes/monitoring wells examined in the south and east portions of the Study Area (Dillon 2016).
Table 1
Summary of Borehole & Monitoring Well Results for the South & East Portions of the Study Area
(based on Dillon 2016)

<table>
<thead>
<tr>
<th>Pier 6</th>
<th>Pier 7</th>
<th>Pier 8 (south &amp; east portions only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 15 BH &amp; MW examined, including at edge of Guise Street ROW &amp; on the docks primarily asphalt or concrete surfaces over loose sand &amp; gravel fill with a varying amount of slag &amp; cinder, &amp; brick &amp; wood debris; this fill varies in depth between 0.2 &amp; 3 M below grade</td>
<td>• 11 BH &amp; MW examined, including at top of Guise Street ROW (MW 172D), on bank of Discovery Drive (MW 171) similar fills as on Pier 6 • MW 172D at top of slope on Guise Street ROW indicates all natural soils above subsoil have been previously removed</td>
<td>• 13 BH &amp; MW examined, including 2 at the top of slope (BH 69 &amp; 70) and one in Guise Street ROW at base of slope (MW 84) Fills (mix of sand, gravel &amp; clay with inclusions) to silty sand, silt or clay - the silty sand &amp; silt are also fill in some cases containing slag; the lower clay is presumed natural Fills include varying amounts of brick, wood, stone and slag Fills are damp to wet &amp; generally loose; sands/silts/clays are also damp to wet with varying compaction Top of slope: fills to between 0.46 &amp; &gt;2.74M In Guise Street northern ROW: fill to 2.69M</td>
</tr>
<tr>
<td>• a silty sand fill is typically present beneath the mixed fills, is wet, loose &amp; sometimes mottled; wood debris or organics may be present; this is probably dredged lake fill</td>
<td>• various silts, silty sands, clays &amp; silty clays, presumed natural, begin between 4 &amp; 6M depth</td>
<td>• 13 BH &amp; MW examined, including 2 at the top of slope (BH 69 &amp; 70) and one in Guise Street ROW at base of slope (MW 84) Fills (mix of sand, gravel &amp; clay with inclusions) to silty sand, silt or clay - the silty sand &amp; silt are also fill in some cases containing slag; the lower clay is presumed natural Fills include varying amounts of brick, wood, stone and slag Fills are damp to wet &amp; generally loose; sands/silts/clays are also damp to wet with varying compaction Top of slope: fills to between 0.46 &amp; &gt;2.74M In Guise Street northern ROW: fill to 2.69M</td>
</tr>
</tbody>
</table>

The bedrock in this region is Upper Ordovician, more specifically the Queenston Formation, which consists of red shales. This formation is bordered on the west by the Clinton and Cataract Groups which make up what is known as the Niagara Escarpment. The Niagara Escarpment is a prominent physiographic feature in this area that runs through the Niagara Peninsula from upper state New York, roughly parallel to Lake Erie. The Niagara Escarpment, an exposed bedrock ridge, spans from the Niagara River west to Dundas and then northward to Tobermory and Manitoulin Island (Kor 1992:3). It is an erosional feature, modified by glacial and post-glacial fluvial activities, defining re-entrant and outlier valleys (Kor 1992: 5). The escarpment is capped by “resistant dolostone of the Lockport Formation which
is typically exposed as a short, steep rock bluff above a sloping talus- or till-covered slope. Softer limestone, sandstone and shale layers underlie the hard cap rock but are only locally exposed at waterfalls or in road cuts” (Heagey 1995: 1-12).

The Hamilton Harbour is located in an area “along the axis of the Dundas Valley re-entrant and [is] a deep buried bedrock gorge [that] extends for more than 18 km northeast from the head of the Dundas Valley, through Cootes Paradise and the Hamilton Harbour and into Lake Ontario. The bedrock surface forms shelves which slope down towards this gorge from the north and south shores. The buried bedrock gorge is largely filled with till deposits” (Heagey 1993: 293).

1.2.2 Water Sources & Vegetation

The distance to a water source is a major factor in determining an area's archaeological potential. Generally, areas within 300 metres to a seasonal or year round source of running water are considered to be of high archaeological potential.

The Study Area in the present day is part of the southern edge of a sheltered bay (Hamilton Harbour, also known as Burlington Bay) that is located on the western edge of Lake Ontario. It has a long history and only came to it present level and form comparatively recently.

Following the retreat of the ice sheet from the Lake Ontario basin, water filled the basin to a level higher than that of the present day. Known as the Lake Iroquois stage, this began around 12,300 BP, and ended around 11,700 BP when the glacier retreated enough to allow water to flow down the St. Lawrence River (Heagy 1995:1-21; Jackson et al. 2000: 431). Then around 10,000 BP, the lake then dropped to 15 m asl, a level far below that of the present day, and slowly rose again over the following millennia. At 5000 BP, its level was 50 m asl and at 2800 BP, it had risen to 59.5m asl (Heagy 1995: 1-24). Water levels only began to approximate those of the present day within the past thousand years or so.

The result of these changes and their timing is that at the time of the first human presence in the region, a time known as the Early Palaeo-Indian period, the lake level was far below today’s and the shoreline was also displaced, the head of the lake was several kilometres east of where it is today (Jackson et al 2000: 432.) What is now Hamilton would have been dry land with a deep valley where the harbour now lies leading Spencer Creek east to its outflow at the lake. In subsequent millennia, the lakeshore would have slowly advanced westwards as the lake filled up and the beach bar at the east end of Burlington Bay began forming. The lagoon behind this bar (Hamilton Harbour) and Cootes Paradise behind the Iroquois bar would have been rich wetland environments within the past thousand years.

Historically, the shores of Lake Ontario provided many microclimates and environments with diverse resources, and would have served as a main transportation route, as well as provided many food types. It also supported European settlers and their large industrial base where various products could be easily transported to distant markets. The micro-environments would have provided Aboriginal inhabitants with a wealth of subsistence resources, and the waterways and lake would have provided more food sources as well as good transportation networks.

Since the construction of the St. Lawrence Seaway in the early 1950’s, the level of Lake Ontario has been controlled by the dam at Cornwall (Wilcox et al 2007: 6). This has kept water levels within a tight range from year to year and decade to decade with an average level at 74.75 m above sea level, although
seasonally, there is a 65 cm variation, with the highest point reached in May and the lowest in November (Fisheries and Oceans Canada 2016).

Not only was the water used for industry – transportation of goods and produce, but also for recreation. Fishing, skating, and sailing were well documented. As well, “in the winter the icehouses sent their teams out on the harbour to cut ice. ... Big companies filled to capacity their great ice sheds along the bayfront and you could see sleighs loaded with blocks of ice moving up the streets. One ice firm in the 1920s prided itself on cutting 4 tons of ice per minute for a total of 2,000 tons of ice daily. With the growing popularity of electric refrigeration as well as the growing pollution of the bay's waters, the picturesque job of ice harvesting gradually faded away” (CG web page: History of Hamilton).

Hamilton Harbour is fed by Cootes Paradise (located between Dundas and the western side of the bay), Spencer Creek, Grindstone Creek and Redhill Creek watersheds, among other, smaller creeks. (Heagey 1993: 296). The Harbour was once much larger than it currently is, due to infilling. “From the beginning of settlement along the bay shore, excess water was a problem. Many large inlets went far up into what is now the heart of the city and in the spring the area turned into one great bog, cutting the northern half of the town off from the southern half. Malaria was rampant in the marsh that was the north end of the city” (CG web page: History of Hamilton). That marsh has since been infilled, primarily in the first half of the 20th century.

The majority of southern Ontario was once forested. Presently, the Study Area (and Hamilton) is situated on the fringe between two major forest zones—the deciduous forest, more commonly known as the Carolinian forest, and the transition zone between the boreal forest to the north and the deciduous forest to the south. This provides the area with a diversity of flora. Some of the main types of trees found in the mixed woods forest are red pine, tamarack, paper birch and the black and white spruces. Notable tree species in the Carolinian forest include black walnut, pignut hickory, chestnut, paw paw, tulip, wild crab apple and the flowering dogwood. Other main species found in the Hamilton region include varieties of maple, ash, elm, oak, hemlock, spruce and pine (Macdonald 1987:67).

1.2.3 Lithic Sources
Sources of siliceous stone, specifically chert, for making tools were often focal areas for pre-contact Aboriginal peoples. There are no immediate sources of lithic raw materials in the vicinity of the Study Area, and the nearest primary chert source is the Goat Island Formation (Ancaster chert) found along the escarpment from Stoney Creek through to Clappison’s Corners (Eley and von Bitter 1989: 4). Ancaster chert is part of the Lockport Formation of Middle Silurian Age. This specific chert is located along the top of the escarpment, and is between 7-10 cm thick, and its colour (fresh) is a medium grey that is usually mottled with darker inclusions of carbonate and lighter grains of quartz (Eley and von Bitter 1989: 20).

The next nearest main source, and by far the most predominate chert type on most southwest to central Ontario sites, is Onondaga Formation chert found along the northeast shore of Lake Erie (Eley and von Bitter 1989: 4).

1.2.4 Archaeological Sites and Previous Archaeological Work
FAC has conducted a search of the Ministry of Tourism, Culture and Sport’s (MTCS) registered sites database for archaeological sites within a one kilometre radius of the Study Area. The result shows only one registered site, AhGx-728, located within Eastwood Park, which abuts the Catharine Street...
intersection with Dock Service Road. AhGx-728 consists of several stone foundation segments (FAC 2016).

Only finding one registered site in this area is more reflective of the early development of the city core and the lack of archaeological surveys prior to that development, rather than an indication of the number of sites in the area. As the presence of AhGx-728 confirms, there is still potential for other find spots or sites nearby, of Aboriginal and/or European origin.

One unregistered site should be noted here (see also Section 2.1) that was recorded by an historic plaque. This is the Burlington Glass Factory that was located on the northwest corner of MacNab St. North and Burlington St. This vacant land, now a park, is just to the southwest of the Study Area.

**Previous Archaeological Work**

There are three reports regarding projects within 50 metres of this current Study Area.

Archaeological Services Incorporated (ASI)

*Stage 1 Archaeological Assessment Rapid Transit Initiative, City of Hamilton, Ontario. 2009.*

This report’s scope is extensive, covering narrow corridors through the City. The corridor that could pertain to this study is the James Street route. The James Street route ends at the north end of James Street (at the intersection with Guise Street). The ASI report states that the James St. ROW is entirely disturbed, and does not contain any archaeological potential, but beyond this area of disturbance there were four areas that may retain potential (2009:15). These four areas are outside of FAC’s current Study Area.

Fisher Archaeological Consulting (FAC)

*West Harbour Piers 5 to 8, Pumping Station and Forcemain(s), Environmental Assessment, City of Hamilton, Ontario. Stage 1: Background Study. 2014.*

This report focuses on two proposed pumping station locations in Piers 6 and 8, proposed sanitary sewer routes within Piers 5 to 8, and two proposed sanitary forcemain routes, along with two alternate forcemain routes beyond the piers boundaries. Piers 6 to 8 are found within our current Study Area. The background study concluded that there were a few areas of high potential. These areas included sections of the Brock Street and Mary Street right-of-ways, portions of Eastwood Park, as well as a portion of Pier 8 and Catharine Street. The Stage 1: Background Study recommends that “the Pier 8 and Catharine Street areas would require monitoring during construction if these routes are chosen” (FAC 2014a). This section of the route passed through, or very close to, possible mid-19th century structure locations on the earlier wharf complex, and the possibility that structural remains may still exist beneath the current surface was the premise for the recommendation. The tight, linear scope of the pumping station and forcemain project was such that consideration of the historic wharves as a whole for archaeological potential was not relevant.

Fisher Archaeological Consulting (FAC)

*West Harbour Piers 5 to 8, Pumping Station and Forcemain(s), Environmental Assessment, City of Hamilton, Ontario. Archaeological Stage 2: Assessment. 2016.*
This report pertains to the sections of the proposed and alternate forcemain routes beyond the boundary of Piers 5 to 8 that were deemed to have archaeological potential in the Stage 1: Background Study. These areas included sections of the Brock Street and Mary Street right-of-ways and three sections within Eastwood Park. The Stage 2 assessment concluded that “...the landscape had been extensively altered over the past century” (FAC 2016). Several stone foundation segments were identified in Eastwood Park and are now “…registered with the province as archaeological site AhGx-728)” (ibid). Other than these foundations, nothing of cultural heritage value or interest was identified within the Stage 2 assessment. The entirety of this assessment was conducted outside of the current Study Area, and located approximately 100 metres south of the Study Area’s southwest corner.

It should be noted that since the above Stage 2: Assessment did not include any work within Pier 8 and Catharine Street, those sections recommended for monitoring during the proposed sewer construction in the previous Stage 1 report still require monitoring.

The City of Hamilton’s Archaeological Master Plan (AMP, draft) was consulted to determine if there was any relevant information pertaining to the Study Area. The AMP recognizes the potential for sites to have been buried during the extensive 20th century infilling of the water lots on the irregular shoreline (Hamilton AMP 2012: Appendix D-7). “The alteration of waterbodies is another activity impacting archaeological resources because of the link between humans and water sources...The infill of lots along Hamilton... Harbour also capped or destroyed many archaeological resources” (Hamilton AMP 2012: 9). The AMP is a general guide that requires a detailed Stage 1 study to refine this potential mapping. FAC’s study provides this refinement.

1.3 Historical Context

1.3.1 Aboriginal History

The history of Aboriginal people in southern Ontario is a long and varied one. This section provides a brief synopsis of the people who have been in the province for millennia — from Paleo-Indians through the Archaic, Early and Middle Woodland periods to the post-European contact period in the general Hamilton-Burlington area. Most of this section was written by one of this report’s author, J. Fisher (CRM Group et al. 2002: Section 2).

The earliest recognized people inhabiting Ontario were Paleo-Indians who were non-agriculturalists and depended upon hunting and foraging of wild foods in order to survive. They would have moved their camps on a regular basis to the areas that would have provided resources as they became available. The size of the groups of people would in part have depended upon the size and nature of those resources available at a particular location (Ellis & Deller 1990:52). People would have gathered or dispersed throughout the year depending on the availability of resources and social constraints. The environmental conditions of spruce parkland/woodland to pine forests would have necessitated frequent moves and a large range of territory in order acquire adequate resources.

While the Paleo-Indian period lasted for a millennium, the Archaic horizon lasted for approximately seven times that length spanning from 8,000 B.C. to 800 B.C. It would appear that the Archaic peoples in Southern Ontario were subsisting in smaller territories than the former Paleo-Indians, thereby becoming more regionalized. Their population was increasing, probably due to the more reliable food resources as well as greater biodiversity in these resources. One of the major differences between the Late Archaic and Early Woodland (800 B.C. to ca. 0 B.C.) in the archaeological record of southern Ontario was the
appearance of pottery. By the time of the Middle Woodland, there was a major shift in the way people settled the landscape and procured foods. It is at this time (500 B.C. to A.D. 700) that people were making fish a more important aspect of their diet, although hunting and foraging continued. As a consequence, rich and large sites began to appear on river valley floors. The sites were inhabited periodically for sometimes hundreds of years, and represented a warm season macroband base camp, to take advantage of spawning fish. People kept returning to particular fish spawning grounds, and became more reliant on this resource. People were becoming more sedentary and had a restricted band territory, compared to the people from the Archaic.

When exactly the Late Woodland began and the Middle Woodland waned has been debated by archaeologists, but the designation has been based on a number of material distinct differences. Differences included new settlement and subsistence strategies, a new type of pottery construction, different pottery decorating techniques, and a variety of projectile point forms. Based on these characteristics, it is generally felt that the Late Woodland period began at around A.D. 800 and continued until A.D. 1650, after which the time frame is designated as post-contact period. The Hamilton area is extremely rich in Aboriginal sites that represented vibrant cultures. Paleo-Indian groups lived and hunted along the top of the escarpment in Stoney Creek. Aboriginal people from the Archaic time frame inhabited up-land as well as areas closer to the lake. Woodland sites are also located in the Hamilton area and have been excavated in Burlington below the Lake Iroquois shoreline, and further inland. Villages from the Late Woodland are numerous, showing that these people were prosperous and farmed many acres in the region. European contact changed all that, and social upheaval was catastrophic to the way of life for these people. Population levels plummeted and various groups were displaced or tragically, entirely wiped out.

The area that would become Ontario around the northern shores of Lakes Ontario and Erie were relatively undisturbed by significant European settlement until around the time of the American Revolution. Previously, the French had generally restricted settlement to the St. Lawrence and Richelieu river valleys, and had established trading posts in the interior, but without too much demand for land (Surtees 1994:92). All this changed after the British defeat of the French in 1760, and policy changed dramatically. The Royal Proclamation of 1763 established the procedures for land surrenders from Aboriginal Peoples for over the next two centuries. The proclamation stated that only the Crown could purchase lands in the “Indian Territory”, the mechanism for this was through formal and public councils between the Crown and the Aboriginal People whose lands were involved in the negotiations (Surtees 1994:93). Once the land was acquired, then the Crown could redistribute it either by sale or land grant.

The European and American political milieu of the time created major social upheavals, including the displacement and migration of a number of people. The first substantial influx of people into Ontario was after the American Revolution, and the area saw a migration of United Empire Loyalists fleeing the turmoil to the south, and displaced Iroquoian People. Therefore, although Lady Simcoe had noted the Hamilton area has having been “thickly settled” by Native populations in the 18th century (from Hamilton AMP: Appendix D-7), by the War of 1812, Aboriginal Peoples in Ontario found themselves being displaced and pushed away from the waterfront tracts of land around Lakes Ontario and Erie, the upper St. Lawrence River, the Detroit River, and the Niagara River (Surtees 1994:92). The second wave of immigrants occurred shortly after the War of 1812 and expanded beyond the waterfronts to the interior of the province, when the British government required land for settlers (both to emigrants and as settlements to disbanded military personnel – ie. Butler’s Rangers). In 1784 and 1792 Treaty #6 called “Between the
Lakes Purchase” was signed between the Mississauga. These lands included “the Niagara Peninsula, lands close to the head of Lake Ontario, and the north shore of Lake Erie as far as the mouth of Cat Fish Creek” (Surtees 1994:102). It was from this large tract of land that the Grand River tract was carved.

Today, the closest First Nations are Six Nations and Mississaugas of the New Credit. Note that the Wendake Nation, of the Huron-Wendat near Quebec City have interests in some archaeological sites in Hamilton.

1.3.2 Euro-Canadian History of the Township/City Development

Between January 15th and March 12th, 1788, the Head-of-the-Lake townships within Lincoln County were surveyed and named. One of the townships in this county, established in 1791, was Barton Township, named in honour of Barton upon Humber in Lincolnshire, England (Hamilton Public Library). In 1816, the Gore District was formed including sections of the Home and Niagara districts. At the same time, two new counties were created; Halton County and Wentworth County. Wentworth County came to include the townships of Barton, Ancaster, Beverly, Binbrook, Flamborough (East and West), Glanford and Saltfleet.

The population of the Hamilton area, as elsewhere in Ontario, was augmented by the exodus of many United Empire Loyalists (UEL) at the end of the American Revolution in the late 18th century. In the early 1800s, when Peter Jones (Kahkewaquonaby) of the Mississauga Nation was a boy, he described Burlington Heights and its environs when he “...traverse[d] the shores of its clear waters in a the light birchbark canoe; here ..[he] ranged the forest, and shot many a partridge, squirrel, and pigeon, where now may be seen the fine brick or stone house, and the productive farm of white man” (Smith 1987:16). By 1833, Hamilton was incorporated as a town within Wentworth County, and became a city in 1846. “For the next few decades the city had its ups and downs, almost going bankrupt in the 1860s. ... The bailiffs seized the furniture of the city hall along with the portraits of the past esteemed mayors of Hamilton and put them on the block to raise money on Hamilton's debt. No one wanted them. A public spirited citizen finally bought them and donated them back to the city. To stall off the auditors the City Clerk took a vacation with the Assessment Rolls until the crisis was over and Hamilton was safe once more” (Canadian Government (CG) web page: History of Hamilton). During the 1890s, Hamilton became an industrial power house with iron and steel manufacturing becoming the dominant industries.

The neighbourhood section immediately south of the Study Area was part of the City of Hamilton by 1859, whereas the piers were officially incorporated sometime between then and 1875. Although the political boundaries determined their location name, based on a variety of maps it appeared as though the wharves and piers were used and treated as part of the city from the beginning.

The rapid growth of the city required more lands and so began the annexation of sections of Barton Township, as evidenced in the Map of the County of Wentworth, by Robert Surtees, 1859. With the final annexation in 1960, the township ceased to exist. In 1974 a regional government was implemented and the City of Hamilton became part of the Regional Municipality of Hamilton-Wentworth. On January 1, 2001, the amalgamation of the city with Dundas, Stoney Creek, Ancaster and Glanbrook created the New City of Hamilton.

1.3.3 Shipping in Hamilton Harbour

The bay area of Hamilton has been known by a number of names, early ones being Lake Geneva (map of
The geography of Burlington Bay slowed the initial development of shipping in the area so that Hamilton did not have the early port activity of Kingston, York (Toronto) or Newark (Niagara-on-the-Lake). The natural outlet across the beach bar was shallow and could be blocked by beach gravel cast up by easterly storms (Brookes, Chapter 1), meaning that only very small boats or canoes could reliably access the bay from the lake. William Sheldon, the first merchant in the village of Hamilton, had to build a storehouse at Burlington Beach, goods were received from ships on the lake and then transported across the bay in small boats and brought up James Street. (Brookes, Chapter 1).

By the 1820s, an era of canal building began across the settled parts of North America and the development of shipping in Hamilton paralleled the larger trends in water transportation from this point on. In 1823, the legislature passed an Act authorizing the building of a canal through the bar at Burlington Beach to allow larger boats access to the bay. Excavation began in 1825 and soon after, the first wharves on bay were under construction, including one built by Sheldon the merchant in 1827. In 1828, William Chisolm of Hamilton owned 5 ships that transported freight on Lake Ontario. Hamilton first appeared in an advertisement for a scheduled passenger steamboat service in 1830 (Brookes, Chapter 3).

Elsewhere, construction began on the first Welland Canal in 1824. The Lachine Canal opened in Montreal in 1825, as did the Erie Canal that crossed New York State (Brookes, Chapter 2). The first locks were begun on the Rideau Canal in 1826 (Canadian Encyclopedia, Building the Rideau Canal). Work began on the Desjardins Canal connecting Dundas to Burlington Bay in 1827, but it was not completed until ten years later (Brookes, Chapter 3). The Oswego Canal opened in 1828, connecting Lake Ontario to the Erie Canal and the ocean port at New York City, providing competition to the haulers who boated and portaged goods down the St. Lawrence River rapids to Montreal. The Welland Canal opened in 1829 (Brookes, Chapter 3).

Brookes (Chapter 3) describes the layout of Hamilton’s waterfront in 1834:

…there were four wharves in business and one under construction. Of these, one was isolated from the rest. This was Abel Land’s wharf, situated on a point extending into the Harbour near the line of Victoria Ave. It could be reached from the foot of Wellington Street. Hughson's Wharf protruded from the point of land between John and Hughson Streets, while at the foot of James Street, Sheldon's Wharf and Daniel C. Gunn's Wharf extended out from shore with a very irregularly shaped slip between them. To the west, just past MacNab Street, a large wharf was being built [Queen’s Wharf]. This area, from the foot of Catharine St. to the foot of Bay St. became known as the "City Docks", and with the exception of the Railway Wharf, of later date, was the centre of shipping activity for the rest of the Nineteenth Century.

Through the next few decades there were many changes to ships and shipping, but little to dent the overall growth in traffic and use of the harbour. Steam sidewheelers appeared, and then in the 1840s propeller driven ships. There was a dense network of regular steamer routes that operated on the lake, with many
calling at Hamilton. Canals on the St Lawrence allowed regular routes to Montreal and Quebec City. The
growth of railways in the 1850s impacted the boat passenger traffic, but trains also became a new way to
get freight, especially grain, to port (Brookes, Chapters 5 and 6).

The railways did bring new industry to Hamilton and while this did not immediately change the use of the
city docks area, it started a pattern that led eventually to the docks decline as the city and region’s
economy transformed. By 1891, infilling had occurred on the bayfront both west and east of the docks
area and with it new manufacturing enterprises that supported the railways, and made agricultural
implements (Gentilcore 1987: 116). The transcontinental railway that was built in the 1880s bypassed
Hamilton in favour of Toronto (Wood 1987: 119) leading to a decline in the grain trade. A new larger
Welland Canal was completed in 1887 that allowed larger ships to trade on the lakes. Electric power came
a decade later prompting a boom in industry (Wood 1987: 123-124). The first blast furnace began
production in 1896 (Brookes, Chapter 16). As a result, the majority of the new port infrastructure in the
20th century was constructed east of the Study Area on newly reclaimed land, including the inlets and
marshes on the harbour’s edge, which offered vast acreages for industrial development. In 1927, the
Canada Steamship Lines moved operations from the city docks by James Street to a new, larger terminal
off Wellington Street. A great period of infilling of the eastern harbour had begun and continued for
decades including the construction of the big steel works of Stelco and Dofasco, augmented by the
opening of fourth Welland Canal in 1931 (Brookes, Chapter 16; Wood 1987: 125, 130).

The expansion of heavy industries meant that the city could not effectively govern the waterfront area,
and in 1912 the federal government created the Hamilton Harbour Commission (Hamilton Port Authority
2012). The Commission was “also to administer the navigation laws and have power to make regulations
for the control of navigation” (CG web page: History of Hamilton), but also to build the infrastructure
needed for the ongoing operations of the port. The HHC thus oversaw the harbour infilling, pier and
warehouse development of the 20th century. In 2001, a new Marine Act restructured the HHC into the
Hamilton Port Authority (Hamilton Port Authority 2012: 60).

By 1949, the Port of Hamilton was Lake Ontario’s primary port (Hamilton Port Authority 2012: 30). In
1959, the opening of the St. Lawrence Seaway increased the international shipping trade, and while
passenger traffic effectively ceased in the 1950s-60s, the second half of the 20th century saw a significant
increase in freight shipping (ibid : 35 and Canadian Encyclopedia).

In the 1990s, a new trend began to reclaim former industrial lands on the waterfront and turn them into
green spaces and mixed use neighbourhoods. Bayfront Park and Pier 4 are two of the first examples of
this new pattern of land use (Hamilton Port Authority 2012: 56). A few years later, in 2000, the City of
Hamilton was given control of the West Harbour and it became reserved for people and recreational
purposes, while the HPA managed the industrial shipping ports of the east end (ibid :60). In 2012, the
Port of Hamilton was the busiest of all the Canadian Great Lakes ports (ibid :63).

**Wharf Construction**

Piers and wharves can be marginal, where ships dock parallel to the shore, or projecting, where the ships
are perpendicular to the shore. Marginal piers have a wall of some form that is at the water’s edge.
Projecting piers are supported by various means and can be hollow or solid (Greene 1917: 3). Before
1900, most piers were made of timber cribwork which were floated into place and filled with rocks to
anchor them (Archaeological Services Incorporated 2014: 2). In areas with soft bottoms, piling were used
instead, driven down into the mud until a hard bottom was reached. Often, pilings were driven close
together to form a solid wall (Greene 1917: 3). Some walls were made of sheet steel driven down into the
bottom which was then filled in with rock. In all cases a superstructure was placed on top of in-water
supports to provide a surface from which to access the boats. The 1917 instruction book Wharves and
Piers, their design, construction and equipment, by C. Greene, references Hamilton, Ontario as an
example of a “novel method of capping piles” (pg 98).

The various historic photographs and drawings of the Hamilton Harbour indicate that pilings were a
common construction method in this port, probably because of the substantial depth of silt and clay at the
lake bottom. That cribs were also used is substantiated by a newspaper article from 1916 and the Pier 8
Wall Condition Report (2008). The 1916 news article, noted that, while dredging at the “foot of Hughson
street, about 100 feet our from shore, some old piling and cribs, the remains of an old dock, were removed
and a depth of about eight feet of water provided. During these operations the wreck of an old vessel was
also removed, which is supposed to have been burned about sixty years ago” (Hamilton Herald in HPL-
LHA HH Scrapbook). The position of this material suggests it was part of the mid-19th century wharf
configuration. The Wall Condition Report (Shoreplan 2008: 2) noted the presence of timber cribs and
pilings behind the steel sheet piles.

Despite the wharves association with water, fire was a constant threat for those early timber
superstructures, frame buildings and wooden ships. An article in the Toronto Globe, 1875, described a
fire at the Hamilton Harbour that started in a stable on Myle’s Wharf and spread to Murton & Reid’s
Wharf, ultimately destroying a number of warehouses, shed, office and coal piles (Brookes 2013). As
recently as 1952, the SS. Hamiltonian, used to ferry passengers to LaSalle Park, was destroyed by fire
while in berth at the James Street slip (Hamilton Port Authority 2012: 28).

1.3.4 Historic Plaques

Historic plaques provide information highlighting selected significant people, places and events in an
area. While there are no historic plaques referring to the Study Area directly, there are two plaques within
100 metres. The first plaque was erected by the Historic Sites and Monuments Board of Canada, and
refers to the HMCS Haida - a retired Canadian Navy Tribal Class destroyer used during World War II and
the Korean War that now resides at Pier 9, abutting the eastern edge of our Study Area.

The second plaque is an Ontario Provincial plaque that pertains to the Burlington Glass Works that was
located on the corner of Burlington Street West and MacNab Street North. “The Burlington Glass Works
... was one of the most important 19th century glass houses in Canada in terms of the variety and quality
of its production. From 1874 to about 1897 skilled artisans produced lamps, tablewares and containers.
Glass-production techniques included free-blowing, mould-blowing and pressing in a mould. Pot furnaces
produces several different types of glass in a wide range of colours”(Ontarioplaques.com). Archaeological
excavations in 1960s were conducted on the location of the factory (Ontarioplaques.com).

1.3.5 Land Use of the Study Area

This section describes the previous land use of the Study Area, particularly as it pertains to 19th and 20th
century development, based on primary and secondary documents, photographs, historic maps, aerial
imagery and superceded and current topographic maps. A summary of the information gathered from the
visual images consulted is presented in Appendix A. The comments pertaining to the documents pertain
to both a broad area view and the specific Study Area, where appropriate, thereby providing a fuller
picture of the region. An examination of the former land uses aids in determining the archaeological potential for both the preceding millennia and the more recent historic periods.

Barton Township was surveyed in the late 18th century. The 1791 Survey Plan of Barton, on which land owner names were gradually infilled as lots were obtained, indicates that John Askin Sr held both Broken Front Lots 14 and 15 in 1801. Askin was a land speculator, with holdings across Upper Canada at that time (FAC 2014b: 7). By the 1830s, these lots had been subdivided into town lots and streets, with active wharves at the shoreline near James and Hughson Streets, named Gunn’s Wharf and Hughson’s Wharf respectively, (Hamilton, 1836 - see Appendix A). The Study Area is comprised primarily of wharf complexes and infilling; only the edge along Guise Street that follows the original shoreline is made-land.

The mapping for this area of Hamilton has been extensive from the mid-1800s into the 20th century, and it shows development and infilling of both inland water courses and the shoreline over the last century and a half. The 1842 map is informative in depicting the lack of roads in the area, but shows that the area was filled with inlets and streams emptying into a small bay to the east of the Study Area (now Eastwood Park). The shoreline is indicated as a bluff with a narrow beach strip, the wharves extending from the beach strip. There were 10 structures depicted on this map within the Study Area, all of them on the wharves (see Figure 4). There is also a structure indicated at the base of slope southwest of the Catharine and Guise Street intersection that may be within the Study Area. The map also reflects the growing shipping industry on Lake Ontario as the one wharf complex is labelled ‘Steamboat landings’. The 1846 Map of the Bay and Harbour in front of the City of Hamilton (Figure 5) is perhaps the earliest shipping map of this area providing lake depths. It also indicates property lines within the water between the wharves off James and Hughson Streets, which by 1851 are partially infilled (Figure 6).

Both the 1840s and 1850s maps depict the changing commercial nature of the wharf and shipping industry, as private companies and individuals extend their wharves, close, or move to other wharves. One M.W. Browne in particular, who had an office on Guise Street near the foot of Hughson Street, within the Study Area (1850-51 map, Figure 6), appeared to excel in the shipping business, owning or occupying three wharves at various time in the 1840s to 50s. A newspaper article from 1892 indicates that E. H. Browne’s wharf includes a section of the right-of-way (ROW) between Brock Street and the water, and was effectively blocking the use of that space as a roadway; this would probably have been either Hughson or John Street (Hamilton Spectator, 12 April 1892, HPL-LHA).

The infilling continued either side of James Street, and between John and Catharine Streets in the second half of the 19th century, so that by the 1870s there were substantial waterfront holdings (Figure 7). Comparison of the wharf complex at the foot of Catharine Street between the 1876 Bird’s Eye View and the 1877 Sketch of the Annual Bonspiel indicate the speed at which substantial changes in land/wharf growth can occur.

These changes are matched by the city’s industrial growth, as well as its desired image, which is reflected in the differences between two Bird’s Eye Views, 1876 and 1893 (cf. Figures 8 and 9; note that Guise

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2 Note that, due to irregularities in historic mapping, overlays of the Study Area and its association with the precise location of wharves, streets and structures cannot be considered entirely accurate.
Street [sometimes called Guy Street] follows the original shoreline). The earlier view depicts a clean, genteel city with carriages, churches and orchards beside the orderly streets and houses. The warehouses on the shore and wharves also appear orderly, with only tidy piles of coal to suggest heat and industry. In contrast, the 1893 view depicts wealth through industry, and factories with dirty smokestacks abound. An article in the Hamilton Spectator, 10 June 1892 (HPL-LHA, ), describes how the notorious sand bar, actually “a ridge of stiff, blue clay” from “a point opposite the House of Refuge ['Hospital' on Figure 7] to the buoy off the foot of James street, round which the steamers turn” was being dredged at long last from the bay. This added attention to shipping matters in the late 1800s may be both cause and effect of the industrial prosperity. As the 1893 Bird’s Eye View indicates, there is a substantial increase in both the quantity and the size of structures on the waterfront in the Study Area, which has also been expanded through more ‘wharfing out’, and multiple steamboats and schooners are indicated using the port.

One structure in particular stands out from the warehouses and small offices which dot the waterfront within the Study Area – a large factory on the made-land at the foot of Hughson Street. It is possible that this is the Ontario Brewery, owned by Leopold Bauer, which was rebuilt after a fire in 1875 (Brookes 2013 in FAC 2014a: 19). The Ontario Brewery is listed in the 1871 Industrial Census as: Leopold Bauer, Brewery, Hamilton, Wentworth County, employed three men, produced 800 barrels (BBL) of beer and 820 barrels of lager. It was established in 1858 (Brookes) or 1859 (Sneath) near the “foot of John Street” and, according to the Hamilton Spectator, 28 July 1858, as detailed by Brookes, it had “beer cellars, which were 150 feet long, 11 feet high, and were 20 feet below ground” and flower gardens above (Brookes 2013; Sneath 2001: 344). Sneath indicates that, after the fire, it was “rebuilt under new ownership” (2001: 344). The factory at the foot of Hughson Street is still present on the 1909 Bird’s Eye View (Figure 10), however, although the drawing indicates the chimney stack as operational, by 1911 it has been closed as a factory and the building is taken over by the Hamilton Rowing Club (north half) and Municipal Storage (south half), still with the 180' brick chimney attached (see 1911 Fire Insurance Plan, Figure 14). The structure, and chimney, are still extant in 1934 (Figure 21a) but have been demolished by 1943 (Figure 21b).

The 20th century brought a series of substantial changes to the Study Area. In 1897, someone wrote a letter to the Spectator complaining about the dilapidated state of most of the properties on the central waterfront (Brookes, Chapter 16). In the early 1900s, the wharf extensions are limited, the most visible alteration being the further extension of the wharf complex at the foot of Catharine Street. With the advent of the Hamilton Harbour Commission in 1912, an influx of federal grants in the mid-1900s, and an increased demand for shipping and recreational facilities, the waterfront appearance reflected the growing needs of an international city and port. These changes can be traced pictorially through the various maps and photographs: Figures 11 and 12, and 13 to 16 are topographic maps and Fire Insurance Plans of the early to mid-20th century, while Figures 20 and 21 provide mid-20th century aerial views of the Study Area.
Changes included the installation of a marine railway and dockyard at the foot of James Street North in 1938 for usage by larger recreational vessels as well small commercial; the construction of “new rail sidings and roadways and a dock extension from Catharine to John Street”; and the expansion of Pier 8, begun in 1962 and completed in 1967 (Hamilton Port Authority 2012: 23, 26 and 44). The aerial views in particular depict the change from the old wharf complex, with the factory, boathouses (many of which were also utilized as dwellings before the harbour front clean-up of the 1930s, see Appendix A, 1928), warehouses and empty wharves of the depression years, to a partially landscaped and industrialized wharf complex by the 1960s. James Street North, between Guise Street and the waterfront, was depicted as an open street in maps throughout most of the 20th century; a 1973 infrastructure plan notes this section is cobbledstone, the age of the cobbledstone, whether mid-20th century or a carry-over of the earlier street, is unknown (currently this section is asphalt). The shape of the piers themselves has been little altered between 1967 and the present (see Figure 22), however it should be noted that minor expansion of the west side of Pier 8 is currently being undertaken.

While the focus in this section has been on the pier complexes, the Study Area does include a section of the Guise Street ROW at its intersection with Catharine Street and Dock Service Road, including the southwest triangle that was incorporated into the ROW through by-law 74-68, Instrument No. AB334549 (see Development Plan), in the 20th century. The block bounded by Guise, John and Brock Streets, and the Catharine Street ROW, has an interesting history. The 1842 mapping indicates a Mess Hall within this block, outside the Study Area and fronting John or Guise Streets (Figure 4). However, a structure clearly indicated as at the base of slope by the intersection of Guise and Catharine Streets may be within the Study Area; the vagaries of early mapping mean its precise location relative to the Study Area is inconclusive (Figure 4). Catharine Street was a through street by the 1850s in the vicinity of the Study Area, and remained that way until the late 1900s, when it was closed between Brock and Guise Streets; there is now a paved trail through that section.

By the 1870s, a hospital was situated within this block (Figure 7 Historical Atlas of Wentworth Co.), and the institutional buildings expanded to more or less fill the block and remained until the late 20th century, when they were demolished and the extant high-rise apartment with underground parking was constructed. The hospital held various capacities in Hamilton through its 100 plus year existence, including as a “House of Refuge” (Figure 14 1911 FIP) and a “Home for Aged and Infirm” (Figure 15 1947 FIP). According to the mapping however, it does not appear that the hospital developed of the extreme northeast corner of the block that is now within the Study Area.

Construction of commercial or institutional features in the late 19th and 20th century does not stand alone without infrastructure. The Fire Insurance Plans indicate that fire hydrants, and therefore underground utilities, were present within the vicinity of the Study Area as early as 1911, and were indicated on the wharf complex by the 1940s, while the storm sewer outfall at the north end of James Street on Pier 6/7 is of stone construction and is also part of the City’s early water management system. However, the amount and variety of utilities within the Study Area has greatly increased over the past 60 years and currently includes a high pressure oil pipeline as well as the expected hydro and water. The oil pipeline crosses the intersection of Guise, Catharine and Dock Streets within the Study Area.

All of this information about land-making, the history of the wharves and former structures, and modern construction with its associated infrastructure installations, was examined and compared to determine the
potential for archaeological material with cultural heritage value and interest to be present and accessible within the Study Area. This analysis and the conclusions are presented in Section 3.0 and on Figure 23.

2.0 METHODOLOGY

Information about the archaeological potential was gathered from various sources. The archaeological potential for Aboriginal sites has been assessed using the data collected from the Ontario Sites Database (OSD) and from environmental data collected from geological, soils, NTS topographic and Ontario maps, and various historic sources. Historic Euro-Canadian site potential has been assessed using data from the OSD system, heritage structures, historic plaques, historic and modern maps, and from primary and secondary historic sources. The assessment of potential for cultural heritage value and interest (CHVI) of the historic wharf complexes has been based on the background research and on a comparison of the Hamilton wharves with archaeological wharf complex excavations in Toronto. Existing borehole information was also examined for below grade current conditions.

During the property inspection conducted on 22nd March, 2016, the Study Area was checked for current land use, the extent of modern disturbance, current structures and physiographic features.

3.0 ANALYSIS AND CONCLUSIONS

The Study Area is comprised of original shoreline, and made-lands and piers, and as such the different components require different analysis techniques and these are presented in detail below.

3.1 The Original Shoreline

The background research indicates that the original shoreline followed more or less along the edge of Guise Street at the southern boundary of the Study Area, and is raised approximately four metres above Lake Ontario with a shallow beach at its foot in places. As such, it would have been utilized by Aboriginal peoples for a variety of activities including, habitation, hunting/fishing, and travel. Since the arrival of the Europeans, the shoreline hosted multiple industries associated with lake transportation, fishing, ice collection and commerce.

Within the Study Area section of the original shoreline is the potential for a pre-1850 structure at the southwest corner of the intersection of Guise and Catharine Streets. The expansion of the shore through wharfing out is clearly documented, while the original beach has been extensively constructed on since the early 1800s to such an extent as to eradicate pre-contact archaeological sites on the lower beach itself. The shoreline bluff has been utilized as a road (Guise Street) for over 150 years, and within its ROW and footprint is the utility infrastructure of a modern city. Utilities noted within the Guise Street ROW portion of the Study Area, and on the bluff, include water, gas and an oil pipeline. The top of slope on the north side of the street, beyond the sidewalk, consists of a paved parking lot for Brewer’s Marine Supply and its shopfront, construction rubble and debris, and the pipeline crossing, and a narrow strip of grass on the approach to Catharine Street. The bluff slope has been landscaped in the west end and is steep and wooded in the east.
The intersection of Guise and Catharine Streets, and Dock Service Road, is at the base of slope with the natural ridge forming the southwest corner of the ROW. This section includes the former road footprint of Catharine Street (now closed between Guise and Brock Streets). The ROW has been extensively disturbed in the past through the installation of utilities, sidewalks, roads, and infilling on its north and east sides, however there may be pockets of undisturbed land, within the southwest corner of the ROW in particular.

Therefore, the potential for Aboriginal archaeological sites is high in any undisturbed portions of the former shoreline, yet there is little that is undisturbed within the Study Area. Information from previous borehole and monitoring well studies (Dillon 2016) at the top of slope on the north side of Guise Street indicate fill to greater than 2.7 metres in the parking lot for Brewer’s Marine Supply (BH70) and on the west side of Discovery Drive (MW 172D), and a half a metre of fill over silty sand that continues to greater than six metres depth east of the Marine Supply store (BH69) (see Figure 3a). Also, MW84, at the foot of slope near the intersection of Guise and Catharine Streets, consisted of fill (topsoil and silty sand with slag) to 1.5 metres over potentially natural subsoils. This confirms extensive previous landscaping on the north side of Guise Street.

Figure 23 outlines the area of remaining potential associated with the original shoreline, which is the south and southwest portions of the intersection of Guise and Catharine Streets and Dock Service Road; it should be noted that even within those areas the potential may be reduced during assessment due to modern disturbances. The potential for early Euro-Canadian sites on the original shoreline is the same as that for Aboriginal material.

3.2 Wharves and Made-land

Heritage Standards

Archaeology in Ontario is subdivided into two categories: terrestrial, or land archaeology, and marine archaeology, the latter referring to a site that is “fully or partially submerged or that lies below or partially below the high-water mark of any body of water” (Ontario Heritage Act: O. Reg. 170/4, s.1.). Wharves are an interesting blend of the two, especially when they have been infilled around and over such that they are part of the current “land”. In such cases they are assessed and documented under the Standards and Guidelines for Consultant Archaeologists (MTCS 2011). They are accessible for land archaeologists through either a low-water state or through de-watering of an area for construction purposes. Wharves and any associated structural materials (eg ship remains, buildings), that are accessible only via in-water studies must be assessed by a licensed underwater or marine archaeologist.

In Ontario, there are only a few wharf sites or complexes that have been investigated archaeologically outside of Toronto, including a river wharf on the Rideau River in Kemptville (BgfV-8), and the Anglin Wharf site (Bbgc-145 and Bbgc-20), the Fort Henry Ordnance Wharf (Bbgc-69) and Morton’s Wharf (Bbgd-18) in Kingston (data obtained through the OASD and the Kingston Archaeological Master Plan, ASI 2010), and an historic wharf in Niagara-on-the-Lake. In Toronto, recent waterfront development has instigated the examination and documentation of a number of wharves, including extensive work at the Queen’s Wharves; not all the Toronto wharves have been registered in the OASD (ASI 2015b:7).
The *Standards and Guidelines* (MTCS 2011), include “early wharf or dock complexes” among the “features or characteristics that indicate archaeological potential” *(Standard 1.3.1)*. The determination of potential leads to an appropriate assessment methodology, with the aim of identifying sites or features of cultural heritage value or interest (CHVI). *Section 3.4, Standard 1g* and *Section 3.4.3, Standard 1* provide further guidance as to what type of site have CHVI.

- **Standard 1g**: “late 19th and 20th century archaeological sites where background research (from any stage) or archaeological features clearly document cultural heritage value and interest”

- **Table 3.2** presents a table of indicators of CHVI, for use with sites including commercial, industrial, institutional, religious and military, and those that would potentially relate to the historic wharf complex are given here.

A review of Toronto’s archaeological wharf investigations, and the 2003 Archaeological Master Plan of the Central Waterfront, City of Toronto (AMPCW), has highlighted the certain components of such investigations. The AMPCW specifically addresses archaeological potential of waterfront lands in a city port situation roughly comparable to that of the City of Hamilton. Its primary criteria for determining archaeological significance are essentially the same as those in the MTCS *Standards and Guidelines*, however the AMPCW includes an additional criterion:

“quality of documentation: applies only to large scale features that cover large areas (e.g., cribbing). If good quality drawings, illustrations and written records are available or other portions of the feature have been subject to archaeological investigation and recording, little additional *new or non-redundant* information may be obtained from the archaeological investigation of the feature. If, however, little documentation exists, or it is contradictory, physical examination may be necessary” (AMPCW 2003: 80).

This guideline is particularly apt for infilled waterfront situations, where there is potential to find an expanse of identical engineering features, such as a wharf constructed using a single crib, or crib and pile, method. In such cases, once an example has been sufficiently investigated, it may be possible to confine the archaeological activities of further similar features to basic documentation *ie* “mapping, measuring and photography of the surface attributes” (AMPCW 2003: 81). An in-depth mitigative investigation may also include, beyond the basic documentation, manual excavation and screening of *in situ* deposits, artifact recovery and dismantling of features for detailed documentation.
The AMPCW also recommended Stage 1 or Stage 1 and 2 Archaeological Assessment of lands with uncertain or known potential respectively (*ibid*: 64). However, since 2003 a number of archaeological investigations on the Toronto waterfront have effectively refined those recommendations such that, where deep fill and/or wet fill is expected in those areas of potential, monitoring during construction is the only feasible option (ASI 2014: 13; Robertson 2016). This is due to the process typically involving complex engineering components, such as de-watering of sections within the construction zone and the extrication of loose and potentially contaminated fills and other debris, that require the capabilities of a large construction project rather than a preliminary archaeological assessment (*ibid*).

Previous archaeological investigations of former wharf complexes in Toronto have documented timber crib construction methods, noting that cribs are the primary construction technique historically utilized in the shallow basin of the Toronto Harbour, and identified sunken ships that were left as part of the future infill process (ASI 2006 and 2012). Their work has noted that there are few historic wharf or structure remnants found above the waterline due to both structural disintegration and past construction activities, Toronto’s waterfront having been heavily utilized by the railroads from the late 19th century onwards (ASI 2006: 18). Through archaeological monitoring of modern construction on the Toronto waterfront, substantial information regarding the construction methods and usage of the historic wharf complexes has been gathered, but still “questions regarding nineteenth century harbour engineering and construction that require further research” arise (ASI 2012: 6).

**The Study Area**

The Hamilton Harbour wharf complex that includes the Study Area was the primary port for the City from the early 1800s until the mid-20th century, by which point the industrial piers were well established at the east end. As the background research indicates, the harbour was an important component of the early development of Hamilton, and played a critical role in both the industrial, commercial and social or recreational aspect of city life. The current usage of the Pier 6-8 Study Area component combines those same roles.

The historic documentation illustrates the progression of construction and demolition or replacement of buildings and wharf structures, the expansion of roadways and infrastructure, and especially the infilling of the waterfront. **Figures 17 through 19** display the changing shoreline features of the 19th and early 20th century through overlays of historic mapping on a current satellite image. Boating and yacht clubs, steamboat docks, and storehouses for various imports and exports may be found on maps from the 1840s to the present day. With increasing demand for use of the waterfront, wharves and piers were constructed, altered or demolished to make way for new ones.

The mapping illustrates that into the early 20th century, the wharf complexes were focussed on two areas: close to the shore from James through John Streets, and the second area with a more northerly expansion off Catharine Street. **Figure 22** provides a comparison of the shoreline in 1915 and 1969, based on the harbour mapping. The massive infilling for Pier 8 was conducted in the 1960s.

The property inspection noted that the majority of the Study Area within the piers was paved, with some gravel sections, and lawn in front of the Navy League building on Catharine Street. Infrastructure, such as gas, water and the oil pipeline, were also observed. Most of the extant structures do not appear to have basements or evidence of substantial below-grade footings. Therefore, it is possible that evidence for some of the earlier above-grade structures may still be present beneath the current surface.
Previous borehole and monitoring well logs (Dillon 2016) indicate that in general, there is between three and five metres of loose, mixed fills containing varying amounts of brick, slag, concrete, and wood debris, across the south and east parts of Pier 8, with up to approximately three metres of similar fills in Piers 6 and 7 (Figure 3a). This is typically over a deposit of silt or silty sand that would be, archaeologically speaking, also fill and probably displaced lake bed deposits. The entirety is damp to wet and traces of contaminants were present in most deposits. While the debris within the fill deposits may include pieces of intact wharves, BH 31 on Pier 8 possibly did encounter an archaeological feature. BH 31 ended at 1.74 metres with refusal to continue, and is in the vicinity of two historic structures: Bldgs 16 and 4 on Figure 23. It may have encountered the foundation for the late 19th century industrial building (Bldg 16) as this structure was two or three storeys tall and had a 180' high chimney attached, therefore requiring substantial foundations. Building 4, a mid-19th century large shed-type structure, would be less likely to have substantial foundations.

Therefore, due to the important role the early wharf complexes played in the development of Hamilton and the Great Lakes shipping industry from the early 1900s into the early 20th century, the lack of previous archaeological investigations of the Hamilton wharf complexes (beyond background research), and the probability that they were constructed in a different manner to those studies elsewhere (i.e. a greater use of piles than those found in Toronto), and the possibility of intact remnant superstructure features (larger buildings or surfaces) as well as probable underwater features (wharf structures, sunken boats), the historic wharf complexes within Piers 6 to 8 have archaeological potential. The general area of potential has been determined to be that of the wharf complexes up to and including the 1915 shoreline, as indicated on Figure 23. The ca 1900 shoreline saw an increase in variety of usages with only a small increase of land size, and therefore retains potential CHVI. Post-1912, the HCC began instituting harbour infill on a major scale, both within [post-1915] and to the east of the Study Area, and the focus of the shipping industry gradually moved eastward, therefore this is an appropriate cut-off point for consideration of potential CHVI. ³

While the historic wharf complexes include associated buildings, the level of archaeological integrity of these buildings is not known at this time. Should any pre-1870 structural remains be identified, these would automatically have CHVI due to their age, until proven otherwise (i.e. from lack of integrity etc). The mid-19th century building locations (approximate) are included on the archaeological potential mapping. Any late 19th century (post-1870) buildings uncovered during monitoring would be documented and CHVI determined at that time. There is only one post-1870 structure that is assigned potential CHVI based on the background research. This structure is the industrial building with chimney visible on the late 19th to early 20th century mapping, and demolished prior to 1943 (Figures 9, 14 and 21). Its potential CHVI is based on its association with the early industrial era of Hamilton and on the probability that it had substantial footings, remnants of which may be available for investigation and recording, i.e. it may provide good site integrity (see reference above to BH31). The other late-19th to early 20th century buildings, were primarily sheds and warehouses, many of which have been documented through sketches and photographs (see Appendix A). Most of these structures, as well as any earlier ones, were of a more temporary nature and therefore have a lower probability of survival.

³ The 1915 Harbour shoreline mapping is more accurate than the earlier 20th century maps, such as the 1911 Fire Insurance Plan or the 1909 NTS, and therefore has been chosen for use in the base mapping of the archaeological potential overlay.
It is also expected that the infill material will contain city landfill including an extensive amount of coal ash and household garbage material, such as is found in Toronto’s harbour (ASI 2014: 3), Eastwood Park, Hamilton (FAC 2016), and was noted in the Pier 8 wall condition report as “slag” (Shoreplan 20013:2). It should be stated that, while a sample of artifacts from the infill material is useful for dating purposes, the assemblage as a whole is collected from across the city and therefore has such a broad context as to render complete collection and study of the assemblage unproductive and lacking in archaeological significance. Therefore, unless discrete contexts within the wharf complex are identified (such as within a shipwreck or a remnant building structure), it is recommended that minimal samples of the general infill be taken for dating purposes only and at the discretion of the licensed archaeologist.

3.3 Summary of Archaeological Potential

Based on the above information and the visual inspection, the archaeological potential of the Study Area is summarized in Table 2. Documents from the earliest maps with historic wharves and structures depicted to existing servicing plans were examined to assess potential for intact cultural resources, and this information was combined with that of the visual assessment and the previous borehole and monitoring well report (Dillon 2016), to specify archaeological potential for each proposed development component (Block, street etc). Figure 23 presents the potential results and general recommendations through two images, Figure 23a: including the mid-19th century building locations (1842 and 1850/51 mapping), and Figure 23b: including the proposed development plan. It is worth reiterating that the historic mapping provides a guideline only as to the location and extent of historic structures.

Apart from a small section of original shoreline in the southeast corner of the Study Area which is recommended for Stage 2 Assessment through shovel testing, the remaining areas of high potential are within the infilled shoreline, and therefore standard assessment through shovel testing or even targetted trenching is not applicable nor effective due to the reasons cited in Section 3.2 Wharves and Made-land. Therefore, monitoring during construction is the recommended approach for these areas, as per Section 2.1.7 Survey in deeply buried conditions, Standard 4 (MTCS 2011).
### Table 2
Summary of Archaeological Potential within the Study Area

<table>
<thead>
<tr>
<th>Planning Zone*</th>
<th>Archaeological Potential</th>
<th>Background Research Notes (building no.’s refer to Figure 23)</th>
<th>Known Extensive Disturbances</th>
<th>Current Land Use &amp; Comments</th>
<th>Recommendations</th>
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</thead>
<tbody>
<tr>
<td>Pier 6</td>
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</table>
| Block 9 (joins with Piers 7-8) | - **High - historic, subsurface wharf structures** | - 1842-51 - 2 buildings (bldg) on wharf (no. 1 & 13)  
- 1850/51 - McPherson & Cranes’ Wharf with 3bldgs (1, 12, 11)  
- earlier James St N footprint (possibly cobblestone)  
-1842 shoreline in Guise Street  
- variety of late 19th-early 20th C structures (no CHVI), no longer extant | - extensive 20th C changes to the dock’s shape and dredging between the slips & for marine railway  
- late 20th c grading (utility plans/marine railway)  
- utilities, including storm sewer outfall, gas, sanitary sewer, cable, hydro, water | - paved surface with two extant modern buildings  
- previously infilled around wharves  
- previous disturbances would have removed superstructure features | - Stage 2 Monitoring during construction |
| Pier 7         |                          |                                                             |                               |                            |                  |
| Block 9 (joins with Piers 6&8) | - **High - historic, subsurface wharf structures** | - 1842 - bldg 2  
- 1850/51 - Browne’s Wharves, including bldgs 14 & 15 (latter was office)  
- 1842 shoreline/beach possibly in south edge of Study Area  
- variety of late 19th-early 20th C structures (no CHVI), no longer extant | - 1842 shoreline/beach impacted/ altered by ROW banking, grading, utilities, infill, modern construction  
- modern utility installation (same as Pier 6), construction of Marine Police Unit | - paved parking and boat storage, Marine Police Unit at foot of pier  
- previous disturbances would have removed superstructure features | - Stage 2 Monitoring during construction recommended |
<table>
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<tr>
<td>Pier 8</td>
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</table>
| Block 9       | - *High - historic, subsurface wharf structures*  
                - Low - historic superstructure  
                - Low - Aboriginal | - no early structures, late 19th C industrial building with chimney (bldg 16) is off the east edge of Block 9 | - modern grading, utility installation, banked street Discovery Drive | - includes Discovery Drive entrance to Pier 8 & gated entrance to Piers 6 & 7 | - Stage 2 Monitoring during construction recommended; **note the Area of Archaeological Sensitivity around bldg 16 in Street A (Figure 23)** |
| Block 1       | - Low - Aboriginal & Euro-Canadian | - former lake bed | - harbour infilled post-1915 | - parking | - No further work recommended |
| Block 2       | - Low - Aboriginal & Euro-Canadian | - former lake bed | - harbour infilled post-1915 | - parking; warehouse; storage | - No further work recommended |
| Block 3       | - *High - historic, subsurface wharf structures*  
                - Low - historic superstructure  
                - Low - Aboriginal | - primarily early 20th C wharf construction; south edge of this block may have 19th C wharf end  
                - no expected buildings with CHVI in this area | - utilities  
                - extant warehouses if they have deep footings (may be slab construction) | - warehouse, parking, storage  
                - paved & gravel surfaces, two elevations | - Stage 2 Monitoring during construction recommended |
| Block 4       | - Low - Aboriginal & Euro-Canadian | - former lake bed | - harbour infilled post-1915 | - parking | - No further work recommended |
| Block 5       | - Low - Aboriginal & Euro-Canadian | - former lake bed | - harbour infilled post-1915 | - parking; storage  
                - paved & gravel surfaces, 2 elevations | - No further work recommended |
## Block 6

**Planning Zone***: High - historic, subsurface wharf structures
- Low - historic superstructure
- Low - Aboriginal

**Archaeological Potential**
- High - historic, subsurface wharf structures
- Low - historic superstructure
- Low - Aboriginal

**Background Research Notes** (building no.’s refer to Figure 23)
- east side contains mid-19th C wharf construction & bldgs 10, 18, 19 & 21. Only bldg 10 is large enough to have potential footings remaining beneath modern disturbances
- wharf expansion in this area throughout the 19th and into the early 20th C; many late 19th & early 20th C bldgs would have impacted earlier structures

**Known Extensive Disturbances**
- utilities
- extant warehouse if it has deep footings (may be slab construction)

**Current Land Use & Comments**
- warehouse, parking, storage
- paved & gravel surfaces

**Recommendations**
- Stage 2 Monitoring during construction recommended

## Block 7

**Southern Part**
- High - base of slope - historic wharf subsurface & superstructures
- Low - Aboriginal & at top of slope

**Northern Part**
- Low - Aboriginal & Euro-Canadian

**Background Research Notes** (building no.’s refer to Figure 23)
- Southern part - mid-19th C wharves including bldgs 4 & 5; early infill area
- bldg 16, late 19thC industrial, may be in this Block also
- south edge of Block 7 includes former shoreline - steep slope

**Known Extensive Disturbances**
- North Part - post-1915 harbour infill
- South Part - utilities; oil pipeline possibly through bldgs 4 & 5 footprint
- top of slope: utilities, grading, modern bldg w basement

**Current Land Use & Comments**
- base of slope - gravel yard to boat storage & marine repair shop; the shop is a large building, connected to the store front at top of slope; top of slope - marine shop with basement (3 floors); parking lot; disturbed to east of bldg with construction debris on surface

**Recommendations**
- Stage 2 Monitoring during construction recommended for area of high potential (base of slope, south part);
- note the Area of Archaeological Sensitivity around bldg 16 in Street A (Figure 23)
- no further work recommended for areas of low potential (see Figure 23)
<table>
<thead>
<tr>
<th>Planning Zone*</th>
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</thead>
<tbody>
<tr>
<td><strong>Block 8</strong></td>
<td><strong>Base of slope within Pier 8</strong>&lt;br&gt;- High - historic wharf structures, subsurface&lt;br&gt;- Low - Aboriginal, &amp; mid-19th C buildings&lt;br&gt;&lt;br&gt;<strong>Top of slope -</strong>&lt;br&gt;- High - Aboriginal &amp; Euro-Canadian, unless extensively disturbed&lt;br&gt;- Low - Aboriginal &amp; Euro-Canadian, where extensively disturbed</td>
<td><strong>Base of slope</strong> - early wharf structures on east side, including bldgs 8 &amp; 9 (small structures); 19th C wharf expansion &amp; infill; probable location of Murton &amp; Reid’s coal sheds&lt;br&gt;&lt;br&gt;<strong>Top of slope</strong> &amp; ROW - no apparent activity until the 20th C infrastructure</td>
<td>- oil pipeline across southwest corner alters shoreline bank&lt;br&gt;- other modern utilities&lt;br&gt;- mid-20th C aerial views show extensive disturbance to ground surface at base of slope - depth of this disturbance is unknown&lt;br&gt;- Guise Street construction</td>
<td><strong>Base of slope</strong> - Navy League bldg &amp; lawn&lt;br&gt;- oil pipeline in southwest corner&lt;br&gt;&lt;br&gt;<strong>Top of slope</strong> - edge of Guise Street ROW, sidewalk, utilities, narrow strip of land between sidewalk &amp; treed slope</td>
<td>- Stage 2 Assessment (shovel testing) at top of slope east of oil pipeline crossing, as indicated on Figure 23; shovel testing will confirm level of disturbance&lt;br&gt;- Stage 2 Monitoring during construction recommended at base of slope&lt;br&gt;- No further work recommended where extensively disturbed at top of slope (see Figure 23)</td>
</tr>
<tr>
<td><strong>Block 10</strong></td>
<td><strong>Western part</strong> -&lt;br&gt;- Low - Aboriginal &amp; Euro-Canadian&lt;br&gt;&lt;br&gt;<strong>Eastern part</strong> -&lt;br&gt;- High - historic wharf subsurface &amp; superstructure&lt;br&gt;- Low - Aboriginal</td>
<td><strong>Western part</strong> - former lake bed &amp; infilled in mid-20th C&lt;br&gt;&lt;br&gt;<strong>Eastern part</strong> - includes mid-19th through to early 20th C wharf construction events&lt;br&gt;- mid-19th C bldgs 10 &amp; 21 may be within Block 10; bldg 10 is large enough to potentially have remnant footings</td>
<td>- Western part - infilled post-1915&lt;br&gt;- Eastern part - additional infill &amp; pier edging post-1915&lt;br&gt;- possible utility services</td>
<td>- paved surface, docking services, part of the Waterfront Trail system&lt;br&gt;- proposed land use is park/open space</td>
<td>- Stage 2 Monitoring during construction recommended for area of high potential&lt;br&gt;- No further work recommended for area of low potential (see Figure 23)</td>
</tr>
<tr>
<td>Planning Zone*</td>
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| Block 11       | *South half*             | - mid-19th C wharf in the south half (associated with bldgs 3, 4, 5 & 17); may be that referred to in the 1916 news article as “an old dock” *(Section 1.3.3 under Wharf construction)*  
- possible that bldg 16 (industrial) is in SE corner of this Block | *North Half - post-1915 harbour infill*  
*South Half - modern utility installation, including oil pipeline* | - Discovery Drive, portion of boat storage yard  
- paved & gravel  
- bldg 3 may be beyond current pier structure; bldg 4 in Block 11 probably impacted by oil pipeline | - Stage 2 Monitoring during construction recommended for area of high potential;  
*note the Area of Archaeological Sensitivity around bldg 16 in Street A (Figure 23)*  
- No further work recommended for area of low potential ( see Figure 23) |
| Block 12       | - Low - Aboriginal & Euro-Canadian | - former lake bed | - harbour infilled post-1915 | - parking; warehouse; storage | - No further work recommended |
| Block 13       | - Low - Aboriginal & Euro-Canadian | - former lake bed | - harbour infilled post-1915 | - parking; warehouse; storage | - No further work recommended |
| Block 14       | *High - historic, subsurface wharf structures*  
- Low - historic superstructure  
- Low - Aboriginal | - primarily early 20th C wharf construction; south edge of this block may have 19th C wharf end  
- no expected buildings with CHVI in this area | - utilities  
- extant warehouses if they have deep footings (may be slab construction) | -warehouse, parking, storage  
-paved & gravel surfaces, two elevations | - Stage 2 Monitoring during construction recommended |
### Planning Zone*

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</thead>
<tbody>
<tr>
<td>Block 15 (Partial)</td>
<td>- Low - Aboriginal &amp; Euro-Canadian</td>
<td>- former lake bed</td>
<td>- harbour infilled post-1915</td>
<td>- parking; warehouse; storage</td>
<td>- No further work recommended</td>
</tr>
<tr>
<td>Block 17</td>
<td>- Low - Aboriginal &amp; Euro-Canadian</td>
<td>- former lake bed</td>
<td>- harbour infilled post-1915</td>
<td>- parking; warehouse; storage</td>
<td>- No further work recommended</td>
</tr>
<tr>
<td>Block 18</td>
<td>- Low - Aboriginal &amp; Euro-Canadian</td>
<td>- former lake bed</td>
<td>- harbour infilled post-1915</td>
<td>- parking; warehouse; storage</td>
<td>- No further work recommended</td>
</tr>
</tbody>
</table>

<p>| Streets A, B, C, E | South &amp; East parts - High - historic subsurface &amp; superstructure features - Low - Aboriginal North &amp; West parts - Low - Aboriginal &amp; Euro-Canadian | North &amp; West parts - former lake bed, infilled in mid-20th C South &amp; East parts - cross mid-19th C to early 20th C wharves - potentially contain all or part of mid-19th C blds 4, 10, 18 &amp; 21 - only blds 4 &amp; 10 are large enough to possibly have remnant footings - late 19th C industrial bldg 16 appears within Street A - higher probability of in situ footings &amp; structural remains; possibly encountered by BH 31 | - crossed by various modern utilities - oil pipeline on slope/base of slope; alters slope | - primarily parking, storage - paved &amp; gravel sections, two elevations | - Stage 2 Monitoring during construction recommended for areas of high potential; note the Area of Archaeological Sensitivity around bldg 16 in Street A (Figure 23) - No further work recommended for areas of low potential (see Figure 23) |</p>
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<tbody>
<tr>
<td>Catharine Street, north of Guise Street</td>
<td>- High - historic subsurface &amp; superstructure - Low - Aboriginal</td>
<td>- Catharine Street was an early through street to the waterfront - possible that mid-19th C bldgs 8 &amp; 9 are within the road footprint</td>
<td>- utilities, including water</td>
<td>- extant paved road north of Guise Street</td>
<td>- Stage 2 Monitoring during construction north of Guise Street</td>
</tr>
</tbody>
</table>

**Intersection of Guise & Catherine Streets**

| Guise & Catharine Street Intersection | - High - Aboriginal & Euro-Canadian - Low - Aboriginal & Euro-Canadian, where extensively disturbed | - Catharine Street was an early through street to the waterfront; then closed between Brock & Guise Streets in the late-20th C - 1842 *Plan of Town of Hamilton* depicts a structure at the base of slope on corner of Guise & Catharine Streets - may or may not be in Study Area (bldg 7) - includes early shoreline, top of slope visible, extent of former ‘beach’ unknown | - utilities, including water along Catharine Street and oil pipeline crossing at the Guise Street intersection - previous road construction; Dock Service Road was constructed in the 20th C on made-land - is on edge of early 20th C infill for North End/Eastwood Park | - road intersection - Catharine Street is now a paved trail & lawn at south side of Guise Street intersection - SW corner of intersection is scrub with utilities - unclear full extent of disturbance - stone wall marks top of slope | - Stage 2 Assessment (shovel testing) of areas of high potential as indicated on Figure 23 - No further work in areas indicated as low potential on Figure 23 |

* Planning zone refers to the proposed development
Section 2.1.7 Survey in deeply buried conditions (MTCS 2011)

**Standard 4:**
If other techniques have not made a conclusive determination regarding the presence of deeply buried archaeological resources expected as a result of Stage 1 evaluation, the consultant archaeologist must monitor excavation and the removal of fill as follows:

a. Conduct on site monitoring where and when work is proceeding in areas where archaeological sites are predicted to exist, or where construction excavation is extending to a depth that warrants concern. (On-site monitoring may not be required across the entire development site or at all times during construction.)

b. Prepare, in consultation with the proponent and contractors, a contingency plan outlining procedures, documentation, and time requirements in the event that archaeological resources are exposed.

c. Recover all diagnostic artifacts related to the archaeological site of cultural heritage value or interest that are exposed during monitoring. Do not recover diagnostic artifacts related to “fill”.

**Standard 5**
If an archaeological site (i.e., artifacts or features possessing sufficient CHVI to support a recommendation to proceed to Stage 3) is uncovered or affected, construction and monitoring activities must cease in that location.

The City of Hamilton’s currently proposed development plan is to be conducted in three phases:

- **2017** current pavement and building removals
  - limited impact to potential archaeological features
  - addition of fill to amend grade across Piers 6-8, amount of fill variable based on current and desired grades

- **2017/2018** servicing installation including new streets
  - potentially localized impact to archaeological features
  - new grade in place prior to servicing installation

- **2019+** building construction/developer construction
  - variable impact to archaeological features; dependent on depth of construction and depth of new infill.

Since the extent of intact structural remains, whether subsurface wharf components only or superstructure wharf and/or building remnants also, cannot be determined until below grade examination is possible, it is being proposed that as work is conducted in those areas recommended for monitoring, the licensed archaeologist may make additional and/or corrective recommendations regarding the proposed work elsewhere in the high potential portions of the Study Area based on their findings.

Areas within the former lake bed that were infilled post-1915 have low archaeological potential and no further work is recommended for those sections (*Figure 23*).
4.0 FINAL RECOMMENDATIONS

The Stage 1: Background Research has concluded that, as there has been habitation and settlement in the area adjacent to Hamilton Harbour, first by Aboriginal groups, then by settlers as early as the late 1700s, the former shoreline has a high potential for the recovery of either Aboriginal or early Euro-Canadian archaeological material in all areas that have not been extensively disturbed in modern times, including part of the proposed Guise and Catharine Street intersection alteration. The waterfront has been a focal point for trade and commerce in the growing city for two centuries, with wharves documented in the Study Area by the 1840s. The bulk of Piers 6 to 8 is comprised of made-lands, formed through the construction, extension and in filling of multiple wharf complexes since the early 19th century. The wharf sections that were constructed in the 19th to early 20th century have cultural heritage value and interest (CHVI), as would the remains of associated buildings dating to before 1870 or the late 19th century factory, while remains of other late-19th to early 20th century buildings may have CHVI.

Therefore, based on the archaeological Stage 1: Background Study, FAC makes the following recommendations for the Hamilton Harbour Piers 6 to 8, and the Guise and Catharine Streets intersection:

1) that the Study Area indicated to have potential for Aboriginal or early Euro-Canadian archaeological material associated with the former shoreline as outlined on Figure 23, be subjected to Stage 2: Assessment through shovel testing, with the understanding sections may be determined to have no potential based on in field discoveries of extensive modern disturbance;

2) that the Study Area indicated to have potential for intact remains of the 19th to early 20th century wharf complexes, as indicated on Figure 23, be monitored during construction for documentation of any resources with CHVI;

2A) that the archaeologically sensitive area around Building 16, as per Figure 23, be monitored during construction with the understanding that extensive archaeological investigations, including manual or machine excavation of in situ deposits and detailed documentation of soil layers and/or features, may be required.

2B) Since the projected construction activities will be conducted over a number of years and by various proponents, including the City of Hamilton (hereinafter referred to as “the City”), it is recommended that the City flag the monitoring zones in such a manner that any ground disturbing activities conducted within those zones have to meet the archaeological condition prior to commencement. This condition would be an agreement to include archaeological monitoring as per the Construction Contingency Plan outlined here, or in such a manner as agreed to between the proponent, archaeological consultant, MTCS and the City for the specific project.

The ongoing determination of CHVI throughout the project length recognizes the archaeological and historic significance of wharves while at the same time acknowledging the redundancy inherit in detailed recording of every individual subsurface wharf feature. Since the extent of intact structural remains, whether subsurface wharf components only or superstructure remnants also, cannot be determined until below grade examination is possible, it is recommended that as
work is conducted in those areas recommended for monitoring on Figure 23, the licensed archaeologist may make additional and/or corrective recommendations regarding the proposed work elsewhere in the Study Area based on their findings.

**CONSTRUCTION MONITORING CONTINGENCY PLAN**

When archaeological sites are expected or have been identified in deeply buried conditions as per Section 2.1.7 Standard 4b of the Standards and Guidelines for Consulting Archaeologists (MTCS 2011).

1) Monitoring of construction activities has been recommended for all areas within the Pier 6 to 8 footprint where there is high potential for historic wharf complexes to be extant beneath the current grade (April 2016). A licensed archaeologist(s) will be retained by the proponent and must have access to the areas being excavated to monitor for cultural features (e.g. wharves, buildings foundations, sunken ships) or cultural deposits with archaeological material. Prior to construction a copy of this report will be made available to the project archaeologist and to the proponent by the City of Hamilton, and the specific monitoring goals for that construction component discussed and a monitoring schedule arranged.

2) If archaeological resources are identified, all construction activities must cease in that area, and the archaeologist(s) must have safe access to the construction area in which the resources are found in order to examine and document features, and find and remove associated artifacts.

The construction contractor will provide the project archaeologist up to 80 hours of site access to conduct detailed documentation of any exposed archaeological features of cultural heritage value or interest. The construction contractor shall make available crew and machinery as necessary to assist the archaeologist with removal of fill material and to expose archaeological features in order to assess and document them.

3) The construction contractor and site foreman shall make the construction crews aware that there is to be no trading, selling or distribution of glass or ceramic bottles or other artifacts on the work site.

4) The construction contractor and site foreman shall be made aware of the need for archaeological monitoring, and will inform the project archaeologist, of the projected construction schedule, providing them with 48 hours notice prior to the actual construction excavation of this section. The project archaeologist shall be made aware of any safety concerns associated with the construction work in this section in order to meet site health and safety requirements.

5) Should archaeological material be discovered during construction outside of these monitored areas, or when the project archaeologist is not present, the project archaeologist should be contacted to determine the significance of the material.
The proponent will confirm scheduling with the archaeological consulting company prior to the commencement of operations, as per Section 7.9.9 Standard 1c.

3) that the Study Area indicated as having low archaeological potential on Figure 23, be considered free of further archaeological conditions.

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

1) This report is submitted to the Minister of Culture as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the minister stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

2) It is an offence under Sections 48 and 69 of the Ontario Heritage Act for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has complete archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the Ontario Heritage Act.

3) Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48(1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48(1) of the Ontario Heritage Act.

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Kor, PSG

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Macdonald, G.M.

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http://www.ontarioplaques.com/Plaques/Plaque_Hamilton15.html.

2016 *HMCS Haida*. Viewed 04/03/2016:
http://www.ontarioplaques.com/Plaques/Plaque_Hamilton42.html.

Shoreplan Engineering Limited (Shoreplan)

<table>
<thead>
<tr>
<th>Author</th>
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<th>Title</th>
<th>Details</th>
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</table>
PROJECT PERSONNEL

Project Manager: Jacqueline Fisher, P042

Project Licensee: Ruth Macdougall, P359

Study Area Inspection: Emma Gordon, R1082
Ruth Macdougall

Background Research: Emma Gordon
Ruth Macdougall
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Jacqueline Fisher
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Ruth Macdougall
Ema Rubignoni

Report Editor: Jacqueline Fisher
Ruth Macdougall

NPD TABLE FOR WEST HARBOUR PIERS 6 TO 8
ENVIRONMENTAL ASSESSMENT, CITY OF HAMILTON, STAGE 1

<table>
<thead>
<tr>
<th>Permission was obtained to enter the property described in the above report</th>
<th>yes</th>
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</thead>
<tbody>
<tr>
<td>The licensee had permission to remove any archaeological objects recovered during the scope of the above named project</td>
<td>n/a</td>
</tr>
<tr>
<td>The archaeological record will be curated at FAC’s facilities</td>
<td></td>
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<table>
<thead>
<tr>
<th>Property Inspection Date</th>
<th>Weather</th>
<th>Ground Conditions</th>
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</thead>
<tbody>
<tr>
<td>22 March 2016</td>
<td>Cold with cool breeze; 100% cloud cover; high of 8°C</td>
<td>Visible, no snow</td>
</tr>
</tbody>
</table>
Figure 1: Study Area Location and Topography
Figure 2: Aerial view of the Study Area

Key
- Red: Study Area Limits
- White: Piers 6 to 8

Google Earth Imagery, 29 September, 2009.

WEST HARBOUR PIERS 6 TO 8, ENVIRONMENTAL ASSESSMENT, CITY OF HAMILTON, STAGE 1

Figure 2: Aerial view of the Study Area
Figure 3: Proposed Development Plan

Development Plan provided by the City of Hamilton
Note: all BH & MW depths are below current grade.

"Fill" is typically a loose mix of sand, gravel & clays with inclusions on Pier 8, and sand & gravel with inclusions on Piers 6 & 7.

All deposits are interpreted as fill for the purposes of archaeological studies, unless indicated otherwise.

Figure 3a: Selected Borehole & Monitoring Well Results

Development plan provided by the City of Hamilton; borehole & monitoring well information based on Dillon 2016.
Figure 4: Plan of the Town of Hamilton, District of Gore, Canada 1842

Key
- Historic Structures within or adjacent to the Study Area
- Approximate Study Area

Approximate Scale
0 200M
Figure 5: A Map of the Bay & Harbour in front of the City of Hamilton, in the Gore District, 1846

Approximate Study Area

Key

- Approximate Study Area

Approximate Scale

0  200M
Figure 7: Illustrated Historical Atlas of Wentworth County, 1875

WEST HARBOUR PIERS 6 TO 8, ENVIRONMENTAL ASSESSMENT, CITY OF HAMILTON, STAGE 1

Date: 20/04/16
Designer: ER
Figure 8: Bird's Eye View of Hamilton, 1876, facing South East
Figure 9: Bird's Eye View of Hamilton, 1893, facing South East
Figure 10: Bird's Eye View of Hamilton, 1909, facing South
Figure 11a: 1909 NTS Map

Figure 11b: 1923 NTS Map

KEY

- Study Area

WEST HARBOUR PIERS 6 TO 8, ENVIRONMENTAL ASSESSMENT, CITY OF HAMILTON, STAGE 1

Figures 11a-b: National Topographic Maps, Series 30 M/5, 1909 & 1923
Figure 12a: 1938 NTS Map

Figure 12b: 1968 NTS Map

KEY
- Study Area

WEST HARBOUR PIERS 6 TO 8, ENVIRONMENTAL ASSESSMENT, CITY OF HAMILTON, STAGE 1

Figures 12a-b: National Topographic Maps, Series 30 M/5, 1938 & 1968
Figure 13: Fire Insurance Plan, 1898
WEST HARBOUR PIERS 6 TO 8, ENVIRONMENTAL ASSESSMENT, CITY OF HAMILTON, STAGE 1

Figure 14: Fire Insurance Plan, 1911

KEY
- Approximate Study Area Boundary

0 250 Scale

Date: 20/04/16
Designer: ER
Approximate Study Area Boundary

KEY

Figure 15: Fire Insurance Plan, 1947

WEST HARBOUR PIERS 6 TO 8, ENVIRONMENTAL ASSESSMENT, CITY OF HAMILTON, STAGE 1

Date: 20/04/16
Designer: ER
Figure 16: Fire Insurance Plan, 1964

Approximate Study Area Boundary

Scale

250m

FAC

Date: 20/04/16
Designer: ER

WEST HARBOUR PIERS 6 TO 8, ENVIRONMENTAL ASSESSMENT, CITY OF HAMILTON, STAGE 1

Figure 16: Fire Insurance Plan, 1964
Figure 17: Overlay of 1842 and 1850 Mapping on the Study Area

Google Earth Imagery, 22 May 2015.

Shoreline & structure locations are approximate.

KEY
- Study Area
- 1842 Shoreline & Structure (Plan of Hamilton)
- 1850 Shoreline (Plan of Hamilton, Marcus Smith)

WEST HARBOUR PIERS 6 TO 8, ENVIRONMENTAL ASSESSMENT, CITY OF HAMILTON, STAGE 1

Figure 17: Overlay of 1842 and 1850 Mapping on the Study Area
Figure 18: Overlay of 1875 and 1898 Mapping on the Study Area

- **1875 Shoreline (Illustrated Historical Atlas of Wentworth County)**
- **1898 Shoreline & Structure (Fire Insurance Plan)**
- **1842 Shoreline & Structure (Plan of Hamilton)** (Included for reference)

Shoreline & structure locations are approximate.

Google Earth Imagery, 22 May 2015.
Figure 19: Overlay of 1911 Mapping on the Study Area

- **1842 Shoreline & Structure (Plan of Hamilton)** (Included for reference)
- **1911 Shoreline & Structure (Fire Insurance Plan)**

Shoreline & structure locations are approximate.

Google Earth Imagery, 22 May 2015.
Figure 20a: Aerial View of the Study Area, 1952
(HPL-LHA, Barcode 32022 18908924 2)

Figure 20b: Aerial View of the Study Area, 1954
(HPL-LHA, Barcode 32022 18908967 1)

WEST HARBOUR PIERS 6 TO 8, ENVIRONMENTAL ASSESSMENT, CITY OF HAMILTON, STAGE 1

Figure 20 a-b: Oblique Aerial Views of the Study Area 1952, and 1954
Figure 21a-d: Aerial Photographs of the Study Area: 1934, 1943, 1950 and 1954

Figure 21a: 1934 Aerial, Shot A4871_15 (Canadian Dept of Energy, Mines & Resources)
Figure 21b: 1943 Aerial, Shot 748-102 (Ontario Department of Lands & Forests)
Figure 21c: 1950 Aerial, Shot A12511-117 (Canadian Dept of Energy, Mines & Resources)
Figure 21d: 1954 Aerial, Shot 4312-143 (Archives of Ontario)

KEY
Study Area Boundary (approximate)

Aerial photographs obtained through the Lloyd Reeds Map Library, McMaster University

No Scale

Date: 20/04/2016
Designer: ER

FAC
WEST HARBOUR PIERS 6 TO 8, ENVIRONMENTAL ASSESSMENT, CITY OF HAMILTON, STAGE 1

Figure 21a-d: Aerial Photographs of the Study Area: 1934, 1943, 1950 and 1954
Figure 22a: Aerial view of the Study Area with the 1915 and 1969 shore and wharf outlines.

Figure 22b: Burlington Bay, Department of Marine and Fisheries, Canada, 1915.

Figure 22c: Hamilton Harbour, Lake Ontario, Canada. Canadian Hydrographic Service, 1969.

KEY
- Study Area
- 1915 Shoreline
- 1969 Shoreline

Figures b & c: Measurements are of water depth in feet. "m" = mud

West Harbour Piers 6 to 8, Environmental Assessment, City of Hamilton, Stage 1

Figure 22a-c: Burlington Bay, 1915, and Hamilton Harbour, 1969, Overlaid on the Study Area
Figure 23: Archaeological Potential

**Figure 23a: Archaeological Potential with Historic Structure Overlay**

- **All historic structure locations are approximate.**
- **High Potential - Stage 4 Monitoring during construction recommended**
- **Late 19th C factory & chimney (from 1911 FIP)**
- **High Potential - Stage 2 shovel testing recommended**
- **Structures on 1842 Plan of Hamilton**
- **Structures on 1850-51 Plan of Hamilton**
- **Low Potential - No further work recommended**

**Study Area**
- High Potential - Stage 4 Monitoring during construction recommended
- High Potential - Stage 2 shovel testing recommended
- Low Potential - No further work recommended

Building numbers correspond to Table 1 in report.

**Archaeologically Sensitive Area around Bldg 16**

**Original Shoreline - level of disturbance to be confirmed during the Stage 2 Assessment**

**New construction, post-1915**

**Potential for deeply buried structural features associated with the early wharf complexes**

**Disturbed - road footprint, utilities, landscaping, bldg on former shoreline**

**Figure 23b: Archaeological Potential on the Development Plan**

Google Earth Imagery, 22 May 2015.

Development Plan provided by the City of Hamilton.

WEST HARBOUR PIERS 6 TO 8, ENVIRONMENTAL ASSESSMENT, CITY OF HAMILTON, STAGE 1

Figure 23: Archaeological Potential
Plate 1: Guise St Discovery Dr intersection, looking towards west edge of Pier 8 with current construction; facing NNW (Photo #480).

Plate 2: Pier 8, view from east edge of large paved parking lot, looking at existing utilities, structures, and landscaping; facing ESE (Photo #415).

Plate 3: Pier 8, the foot of Catharine St with the Ocean company building, the HMCS Haida docked at Pier 9 and the eastern edge of Pier 8; facing NE (Photo #431).

Plate 4: Guise St at foot of John St looking at oil pipeline, marked utilities and old shoreline; facing NE (Photo #476).

Plate 5: Pier 8, southeast corner of pier, showing landscaped lawn and Navy League building with old shoreline in background; facing SW (Photo #441).

Plate 6: Pier 8, behind Brewer’s Marine Supply with a gravel parking and storage area; note the building is built into the old shoreline; viewed towards SE (Photo #467).

Plate 7: Pier 7, parallel to Guise St, showing utilities, retaining wall and banked slope to yacht storage; facing WSW (Photo #515).

Plate 8: Catharine St/Guise St intersection, looking west up Guise Street (Page #446).

Plate 9: Pier 6/Pier 7 boundary, showing Pier 6 utilities and buildings, facing S (Photo #525).

Plate 10: Pier 7, from end of Aikew Pier looking back towards foot of James St and stone wall/drainage outlet facing South (Photo #522).

Plate 11: Catharine St/Guise St intersection, view of Guise St, southwest corner of intersection, and path along edge of Eastwood Park in Catharine St ROW, facing SSW (Photo #448).
## Appendix A
### Summary of Historic Maps and Images Related to the Study Area

<table>
<thead>
<tr>
<th>Item</th>
<th>Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barton, Wentworth County.</td>
<td>1791</td>
<td>Plan of Barton Township, with lots surveyed and blank. The basic shoreline and water courses have been added. The harbour is labelled Lake Geneva, with an addition below it reading “Now Burlington Bay”.</td>
</tr>
<tr>
<td>HPL=LHA, Call No. I-1-1791/1, Barcode 32022 18911020 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barton Township</td>
<td>1791</td>
<td>This map shows the surveyed lots with basic geographical landmarks such as water courses. The Hamilton Harbour is named Lake Geneva. Names have been written on each lot.</td>
</tr>
<tr>
<td>HPL-LHA, Call No. I-1-1791/3, Barcode 32022 18911022 0</td>
<td></td>
<td>BF Lot 14: RC [Ralph Clinch], 10 July 1801 Jno A Sr. Arch</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BF Lot 15: RC [Ralph Clinch], 10 July 1801 Jno Askin Arch</td>
</tr>
<tr>
<td>Barton</td>
<td>1793</td>
<td>This map focuses on Cootes Paradise and the surrounding topography and water ways, but also includes the surrounding township names &amp; the bay. The bay is referred to as Burlington Bay with a description that states “Deep water within this bay, the outlet admits canoes only in dry seasons but boats can enter the bay in the spring and fall”. Parallel to the shoreline near the SW corner of the bay &amp; then extending SE inland past (but not immediately adjacent to) the Study Area is a trail marked “His Excellency Lieut. Governor Simcoe’s Route to Niagara”.</td>
</tr>
<tr>
<td>HPL-LHA, Call No. I-1-1793/2</td>
<td></td>
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</tr>
<tr>
<td>No. 30, The General Plan of the Canada</td>
<td>1823</td>
<td>This is a military map of Burlington Bay. There are no roads or surveyed lands depicted. Barton Township is labelled, &amp; shows a fairly smooth, undulating shoreline. There are various military buildings, store houses and a battery indicated on the bay bar that divides Cootes Paradise from Burlington Bay (beyond the Study Area). The sheltered harbour is clearly depicted with the two bay bars; the eastern one that divides the Lake from the Bay is labelled “Carrying Place”.</td>
</tr>
<tr>
<td>Plan of Burlington Bay</td>
<td></td>
<td>HPL-LHA, Call No. I-2-1823/1</td>
</tr>
<tr>
<td>Hamilton, 1836</td>
<td>1836</td>
<td>Layout of town road system with waterfront properties divided into lots. Two wharves are indicated within the Study Area: Gunn’s Wharf (foot of James St) and Hughson’s Wharf (foot of John St). The shoreline is quite close to Base St (present-day Burlington St) between Mary and Ferguson streets compared to present-day. The map appears to</td>
</tr>
<tr>
<td>HPL-LHA, Call No. I-2-1836/4, Barcode 32022 18911037 8</td>
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_Fisher Archaeological Consulting_
<table>
<thead>
<tr>
<th>Item</th>
<th>Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan of the Town of Hamilton, Gore District, Canada</td>
<td>1842</td>
<td>James and John Streets are the only NS streets depicted on the map in the vicinity of the Study Area. Gunn’s and Hughson’s wharves labelled “Wharves &amp; steamboat landings”. Where Catharine St will eventually end also has a wharf, titled as such. These three wharves have a cumulative total of five buildings present on them. There is also a structure indicated at the base of slope by the Guise and Catharine Street intersection, possibly within the Study Area, and a Mess Hall depicted south of Guise Street beyond the Study Area.</td>
</tr>
<tr>
<td><strong>Map of the Bay and Harbour in Front of The City of Hamilton in the Gore District</strong></td>
<td>1846</td>
<td>The map depicts the following associated with the Study Area: at the foot of James St: “Land &amp; Routh’s Wharf” on its left side (previously known as Gunn’s Wharf) with a storehouse on it. To the right is an outline with a label “? Gunn’s Prop”. The latter appears to be an outline of the “property” (water) but with an absence of the previous dock/wharf; at the foot of John St: “W.E. Browne’s Wharf” (was previously Hughson’s Wharf), with a storehouse on it. The wharf is outlined similarly to the one above, except it has the label “? Browne’s Property”. There is a natural sand bar noted to be extending north from the foot of John St.; a large wharf labelled “Warren’s Occp’d by Browne” (suggesting that Warren’s wharf is occupied by Browne) extends out from Catharine St, with a width that almost reaches John St. A storehouse is also noted on this wharf.</td>
</tr>
<tr>
<td><strong>Map of the City of Hamilton in the County of Wentworth, Canada West</strong></td>
<td>1850-1851</td>
<td>This map depicts Land &amp; Routh as having moved one wharf to the west, at the foot of MacNab St, which has the label: “Land &amp; Routh’s Wharf”. The wharf juts out to the northeast. At the foot of James St the wharf is now labelled “McPherson &amp; Crane’s Wharf” and is larger than noted on previous maps. This wharf is linked to a larger wharf that extends to the left side of the foot of John St., labelled “Browne’s Wharves”. Note that multiple wharves extend from this section, with one noted as “City Wharf”. This wharf complex appears to have been owned by M.W. Browne, who has an office along Guise St.</td>
</tr>
<tr>
<td>Item</td>
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<td>Comments</td>
</tr>
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<td>---------------------------------------------------------------------</td>
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</tr>
<tr>
<td>The wharf at the foot of Catharine St is now titled “Falkner’s Wharf”.</td>
<td></td>
<td>The bay is known as Burlington Bay. The City of Hamilton incorporates the neighbourhood surrounding the wharves but does not include them. Among the main wharves labelled, the only two within the Study Area are Browne and Falkner’s Wharves.</td>
</tr>
<tr>
<td>Map of the County of Wentworth, Canada West. Robert Surtees</td>
<td>1859</td>
<td>Page 11: Barton Twp - Shows outline of shore with road networks ending at the shoreline. Shore has a few clear manmade modifications where the wharves are. No buildings, names or labels present. Page 56: Wards 5 &amp; 6- Same as on page 11 in terms of details, though the wharves are much more clearly shown. Hughson St is the division between the wards.</td>
</tr>
<tr>
<td>Barton Township. Illustrated Historical Atlas of the County of Wentworth, pages 11, 56 (Figure 7)</td>
<td>1875</td>
<td>Edge of harbour piers are cut off on map, but it depicts the wharves supported by piles put into lake bed. From the foot of MacNab St to the foot of Catharine St, there are a variety of wharves and warehouses, unlabelled. Heaping mounds of coal are shown as well. The corner of MacNab and Brock Streets have a steep slope with a factory at the top of slope, just outside the Study Area. The Study Area itself appears relatively flat and low-lying. Between the wharf at the foot of James St &amp; the buildings on John St, the shoreline has little development, with a few buildings inset inland.</td>
</tr>
<tr>
<td>Bird’s Eye View of the City of Hamilton, Province Ontario, Canada. HPL-LHA, Call No. I-4-1876/1 (Figure 8)</td>
<td>1876</td>
<td>The view is from the foot of Catharine Street and includes sections of both the Myles Coal Wharf and the Murton &amp; Reid’s wharf, within and/or adjacent to the east edge of the Study Area. There is an open area within the Myles Coal Wharf complex that offers a small skating rink, while the bonspiel is being held out on the bay. Winter-moored ships, warehouses and piles of coal are also visible. This drawing shows how the bay provided a social connection year-round for the local residents.</td>
</tr>
<tr>
<td>Sketch of the “Grand annual bonspiel at the Ontario Branch of the Royal Caledonian Curling Club on Burlington Bay” Drawing within the Ivan S. Brookes Collection, <a href="http://www.maritimehistoryofthegreatlakes.ca">www.maritimehistoryofthegreatlakes.ca</a></td>
<td>1877</td>
<td>McKay’s Wharf, Brownes Wharves, Murton &amp; Reid’s Wharf, Myles Wharf are all labelled. The lake frontage between James &amp; Hughson Streets and between John and Catharine Streets is drawn in a rigid, linear style indicating made-land.</td>
</tr>
<tr>
<td>Map of the City of Hamilton, Canadian Almanac 1882 Library &amp; Archives Canada, MIKAN no. 4133353</td>
<td>1882</td>
<td>Bird’s eye view of the city, looking from the escarpment to the north with the harbour</td>
</tr>
<tr>
<td>City of Hamilton, Canada, 1883.</td>
<td>1883</td>
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<tr>
<td><em>HPL-LHA, Call No. I-4-1883/1</em></td>
<td></td>
<td>in the background. Shows multiple wharves jutting out into the water, with businesses and housing just south of the harbour front.</td>
</tr>
<tr>
<td>Murton &amp; Reid’s coal wharf</td>
<td>ca 1888</td>
<td>Looking NW at the eastern edge of the wharf; the piles along the edge are clearly visible. A coal schooner is tied to the pier for unloading. This wharf is within the current Pier 8 complex.</td>
</tr>
<tr>
<td>Photograph in the Ivan S. Brookes’ collection</td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.maritimehistoryofthegreatlakes.ca">www.maritimehistoryofthegreatlakes.ca</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamilton, Bird’s Eye View</td>
<td>1893</td>
<td>Bird’s eye view of the harbour front. The entire shoreline within the Study Area is covered with wharves.</td>
</tr>
<tr>
<td><em>HPL-LHA, Call No. I-4-1893/1, Barcode 32022 18911091 5</em> (Figure 9)</td>
<td></td>
<td>At the foot of MacNab St: right side has two rectangular buildings parallel to each other. A trolley line runs down along James St, turning east onto Brock St. At the foot of James St: the left-hand side has three wooden (possibly board and baton style) buildings, which appear to cut Guy St off. Closer to the shore is a wharf that has two buildings, one of which is labelled &quot;RO &amp; AE MacKay’s Wharf&quot;. To the right is a house with a fence around it and its lawns. The house appears to be at the top of a slight slope down towards the wharves. In front of that is a large wharf with the &quot;Hamilton Steamboat Co.&quot;. At the foot of Hughson St: a large factory is located here with four buildings shown, all together with a smoke stack. The tallest building depicted has five rows of windows above the single-storey building beside it. Between John and Catharine Streets is a group of four similarly structured buildings. Three of them remain on land while the fourth, a long and thin wharf, extends out into the water with wooden piles supporting it. East of Catharine St the shoreline has a short but steep slope down to a small beach area.</td>
</tr>
<tr>
<td>City of Hamilton, Canada: With Views of Principal Business Buildings</td>
<td>1894</td>
<td>Similar to 1893 map, but with advertisements bordering view.</td>
</tr>
<tr>
<td><em>HPL-LHA, Call No. I-4-1894</em></td>
<td></td>
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</tr>
<tr>
<td>Fire Insurance Plan of Hamilton, Ontario. Volume I. Page 38 (only page</td>
<td>Jan 1898</td>
<td>Depicts the area west of James St North, ending just west of MacNab St North and north of Burlington St West. Brock St West was noted as the Late Bay St North. Within</td>
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<td>available) (Figure 13)</td>
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<td>the Study Area, there are two noted wharves; western one is owned by Thomas McIlwraith, with at least six buildings including a general warehouse, three coal sheds, weigh house and an office. There are two areas of slope noted on the west and south edges of the property. The eastern wharf was property of R.O. and A.B. Mackay, with several buildings including general and bonded warehouses, and three coal sheds.</td>
</tr>
</tbody>
</table>
| Sketch or etching of MacKay’s Coal Yard  
*HPL-LHA, 32022 189088780* | n.d. | Depicts various wood and block warehouse structures and a small wood office on the wharves at the foot of James Street (within the Study Area). There is no distinction between the ground material in the “street” footprint and the adjacent land - it all appears to be dirt or another rough surface. |
| NTS 30 M/5  
(Figure 11a) | 1909 | Depicts built up areas in the north end of Hamilton. There are many wharves still present, as well as large buildings such as warehouses and industries. Eastwood Park is not designated. |
*HPL-LHA, Call No. 1909/1 Oversize*  
(Figure 10) | 1909 | This bird’s-eye view shows a very built-up city with specific companies labelled, and displaying various types of transportation. The entire harbour front appears man-altered, showing straight walls, crisp edges, and the platforms/piers/wharves to be made of a solid material whose sides extend below the water. At the foot of MacNab St: the wharf extends west, out of the Study Area. It has two long buildings running the width of the wharf, the waterfront one with a sign saying “Richelieu & Ontario Nav Co.”. Docked in front is a ship named “Belville”. Between MacNab and James streets are two rectangular buildings. At the foot of James St: a wharf on the left has a two-storey building, while the smaller wharf to the right has no buildings. James St itself is a wider street running straight back into the city with horse-drawn carriages & electric trolley cars running along the street. Between James St & John St there is one more dock with two buildings, and a factory and smoke stack just to the south of it. Behind the large factory and at the foot of James to John streets, there are two roads that run perpendicular with trees and shrubs on either side of them - these are believed to be Brock & Guy St., the former sloping down easterly and ending at Catharine St while the |
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<td>latter ends at John St. Where Brock and Catharine Streets meet is the SW corner of a landscaped park which extends east to approximately Wellington St. The park has a similar shape and design to that of a crown. The straight revetment wall indicating made land is clearly visible on the northern edge of the park. The park has small shrubberies and landscaped lawns, with a large fountain in the centre. The western edge of this park, including a small fountain, are within the Study Area.</td>
<td></td>
<td>The wharf complex at the foot of John St has also expanded since the 1890s, both through infilling and extension. It appears to be a substantial wharf with a three-storey building at the south end of it.</td>
</tr>
<tr>
<td><strong>Hamilton 1910. By J. L. Wiseman.</strong> <em>HPL-LHA, Call No. 1910 Oversize, Barcode 32022 18911212 7</em></td>
<td>1910</td>
<td>Same as 1909 bird’s eye view by J.L. Wiseman.</td>
</tr>
</tbody>
</table>
| **Map of the City of Hamilton, 1910**  
City Engineers Office  
Library & Archives Canada,  
MIKAN No. 4133358 | 1910 | A revetment wall has been extended out east from the wharf on Catharine Street for infilling in the North End Park (Eastwood Park) & the north & west edge of that wharf has been extended; the other wharf configurations are similar to those on the 1880s mapping with only minor modifications visible. No structures are indicated on this map. |
| **Fire Insurance Plan of Hamilton, Ont. Volumes I, II, III. Pages 36, 38-39, 48 (Figure 14)** | Mar 1911 | Page 38: On the McIlwraith property, one of the buildings is marked as dilapidated and three coal sheds and the general warehouse is gone. Mackay’s property is now owned by the Canada Steamship Lines Ltd (Inland Navigation Co. Ltd). Three coal sheds and two other buildings were replaced with a freight shed, storage, coal shed and two other buildings. These structures would have been in, or abutting, the southwest edge of the Study Area.  
Page 39, within the Study Area (or on former wharves adjacent to the Study Area): The Canada Steamship Lines Ltd. Property continues onto the east side of the James St docking area and includes a landing shed, freight shed and ice houses. To the east of these are the Hamilton Rowing Club and municipal storage buildings. At the |
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<td>intersection where John St ends at Guise St there are eight boat houses and an office. The office is located at the top of the ridge on the north edge of Guise St..</td>
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<tr>
<td>Page 48, within the Study Area: At the foot of Catharine St (North) was a wharf belonging to the Canada Steamship Lines Ltd. (Mutual Steamship Co.). This included three freight sheds, a large and small office, and two platforms.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Map of the City of Hamilton</strong></td>
<td>1912</td>
<td>The various ferry, steamship &amp; freight lines using the Piers 5 to 8 are noted, those in the Study Area are: Inland Navigation Co, Montreal &amp; Lakes; Niagara Navigation Co, Hamilton &amp; Toronto Div.; Hamilton Ferry Co., North Shore Points; Merchants Mutual Line, Montreal &amp; Lakes; and Hamilton Steamboat Co.. A few structures are indicated on the wharves, particularly at the ends of Catharine and James Streets, and a large structure at the foot of Hughson St.</td>
</tr>
<tr>
<td><strong>NTS 30 M/5</strong></td>
<td>1915</td>
<td>Same as 1909 edition.</td>
</tr>
<tr>
<td><strong>Burlington Bay.</strong> Surveyed by Mr. G.A. Bachand, Dep’t of Mines &amp; Fisheries**</td>
<td>1915</td>
<td>This map displayed water depths, the road system (no roads are labelled), and the various wharves. At the foot of MacNab St. there is a building along the right side. At the foot of James St: long dredged section, 16-17’ deep, with piers on either side. This is the location of the Canada Steamship Lines. From James St to John St there are two buildings, a (labelled) chimney, &amp; a few docks or boathouses at the foot of John St. The eastern limit of the Study Area includes a wharf with four buildings and is labelled Harbour Commissioner’s Dock.</td>
</tr>
<tr>
<td><strong>Map of the City of Hamilton, 1922,</strong> J.W. Tyrell &amp; Co.</td>
<td>1922</td>
<td>At the foot of MacNab St there are four buildings, two of which are on the wharf. At the foot of James St: James St is depicted as continuing to the water’s edge with one building on the left, while two are on the right. At the foot of John and Catharine streets: two buildings are near the edge of the wharf. Catharine St extends to one of these buildings.</td>
</tr>
<tr>
<td><strong>Map of the City of Hamilton</strong></td>
<td>1922</td>
<td>The North End Park has been renamed Eastwood Park. There appears to have been infilling of the wharf area between Hughson &amp; James Street, off the NW side. The trolley car track along Guise and James Streets is indicated. Otherwise it is similar to Fisher Archaeological Consulting</td>
</tr>
</tbody>
</table>
### Online MIKAN No. 4130692
- Date: the 1910 City of Hamilton map.

### NTS 30 M/5 (Figure 11b)
- Date: 1923
- Comments: Similar to the 1909 edition. No significant changes to the Study Area have been noted.

### Hamilton Harbour. Canadian Hydrographic Service (CHS).
- Date: 1926
- Surveyed by Mr. G.A. Bachand, Mr. J.U. Beauchemin and assistants.
- Scale 1:18,000
- HPL-LHA, Call No. I-6-1926/1, Barcode 32022 18911154 1
- Comments: This map focuses more on the water depths but has the road systems showing as well as major factories in Hamilton. There is a building on either side of MacNab St N at the water’s edge (beyond the Study Area). Within the Study Area, at the foot of James St N, there is a pier that extends into the water and is labelled F.G.W., with a building to the east of this and north of Hughson St N. It has been noted that the east side of the pier was dredged 15 feet. At the foot of Catharine St N there is a wharf with two buildings and is labelled F.R.G., accompanied by a small building on the east side of the wharf. Smaller boat docks are noted at the foot of John St N.

### Article: Some Boathouses on the Waterfront Must Go, Hamilton Herald, 15 December 1928
- HPL-LHA Collection
- Date: 1928
- Comments: News article regarding changing by-laws and boathouses, indicates that many of these small structures were also used as dwellings. Article includes a photograph of “Boathouses at the foot of Hughson Street which will be permitted to remain. These are more of a dwelling type of boathouse…Boathouses on some parts of the bay must be removed after the first of year.” Photo depicts 1-2 room frame structures with windows and an occasional stove chimney. These particular boathouses are within the Study Area, and their rooftops can be seen on the 1934 aerial photograph (Figure 21a).

### Hamilton Harbour. CHS.
- HPL-LHA, Call No. I-6-1929/3, Barcode 32022 18911163 2
- Date: 1929
- Comments: The road system is depicted with a few main streets labelled. Several wharves are shown in the Study Area, two of them labelled: F.G.W. and F.R.G. At the foot of James St a long, skinny section in the water has been dredged out 15 feet. To the east of, and surrounding the eastern edge of the wharf at the foot of Catharine St the waterway has been dredged 20 feet.

### Aerial Photograph, Shot A4871_15 Canadian Dept of Energy, Mines & Resources, (accessed from McMaster University Lloyd Reeds Map Library) (Figure 21a)
- Date: 1934
- Comments: Few structures are indicated in the Study Area, and those are on the wharf at the north end of Catharine Street and at the foot of Hughson Street, including a large structure with a chimney stack and a series of small boathouses along the water’s edge to its northeast. The hospital/institution at the corner of Catharine and Guise Streets (beyond the Study Area boundary) is still present. From the north edge of Guise Street to the water, the ground surface is scarred, reflecting its un-natural and constantly changing origin (i.e., wharves & infilling). James St. N. appears as a finished street right across the wharves to the water’s edge. Shallow water in the centre of the Study Area is
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<td>notables in the photograph. The wharves on the west side of the Study Area still reflect some of the earlier iterations compared to the current Pier footprint.</td>
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</tbody>
</table>
| Hamilton Harbour. CHS.  
HPL-LHA, Call No. I-7-1938/5, Barcode 32022 189, 11168 1 | 1938 | This map is similar to the 1926 edition, with slight variation in structures. It indicates the large structure at the foot of Hughson St as having a chimney however, as the 1915 map indicated. |
| NTS 30 M/5  
(Figure 12a) | 1938 | The shoreline on the western side of Study Area is becoming more regular, ie. infilling continues. |
| Hamilton Harbour. CHS.  
HPL-LHA, Call No. I-8-1943/1, Barcode 32022 18911185 5 | 1943 | Similar to 1938 edition, except no chimney is labelled, and the foot of James St has a long dredged out section at a depth of 15 feet. |
| Aerial Photograph, Shot 748-102  
Ontario Department of Lands & Forests,  
(accessed from McMaster University Lloyd Reeds Map Library)  
(Figure 21b) | 1943 | Within the Study Area, slight changes to the wharf complex at the foot of Catharine Street are noticeable, and a large structure has been constructed west of James Street N. The large structure with chimney at the foot of Hughson St, and the small structures to its northeast, are no longer extant. |
| Fire Insurance Plan.  
Pages 100-101, 103  
(Figure 15) | 1947 | An interesting feature on this series of insurance plans is the depiction of topography. Heights of land, sloping down toward the water are shown. A large building is located at the water’s edge at the foot of MacNab St, with a “spit” just to its left; the structure may have been within the western edge of the Study Area. At the foot of James St., within the Study Area, is the “Marine Dock Yard” and a random assortment of small wood structures. Up to John St, the shoreline is fairly sparse of any buildings. The wharf complex at the foot of Catharine St has numerous and various-sized wooden buildings, including the Sea Cadet Hall and the Leander Boat Club. Fire hydrants are also indicated along the north extension of Catharine Street. |
| Hamilton Spectator, March 19th, 1949  
In HPL-LHA collection | 1949 | Article on Harbour Commission construction, with photograph of pile driving at the foot of James Street North for the “building of 12 marinas for...pleasure craft and also...
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<td><strong>Map of the City of Hamilton, ON</strong></td>
<td>1950</td>
<td>Shows road, trolley and rail network as well as the Concessions (the Study Area is in the Broken Front). The trolley network went along the roadways of James &amp; Guise Streets, &amp; ends/loops back at the northeast corner of John &amp; Guise Streets. The Leander Boat Club has moved to the foot of John St.</td>
</tr>
<tr>
<td><strong>Aerial Photograph, Shot A12511-117</strong></td>
<td>1950</td>
<td>Within the Study Area, the Navy League building has been constructed and its east yard appears as lawn. The wharves in the west edge have been straightened from their previous irregular shapes, and the area west of James St. N. is actively in use. The entire wharf complex has a far more ‘finished’ appearance.</td>
</tr>
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<td></td>
<td></td>
<td>There does not appear to have been any changes to the SW corner of Guise and Catharine Streets within the ROW (Study Area) between the 1934 and 1950 aerial photographs; it appears undeveloped.</td>
</tr>
<tr>
<td><strong>Hamilton Harbour. CHS.</strong></td>
<td>1952</td>
<td>Similar to 1915 map, including shoreline. The foot of MacNab St has a building to the right labelled H.H.C. Marine Ry. The building at the foot of Hughson St is the Marine Police Patrol, and the Harbour Com’n building at the eastern extent, at the end of Catharine St.</td>
</tr>
<tr>
<td><strong>Aerial Photograph</strong></td>
<td>1952</td>
<td>View south from out over the harbour, showing the Pier 7 &amp; 8 areas prior to Pier 8 expansion.</td>
</tr>
<tr>
<td><strong>Hamilton Spectator, December 28th, 1953</strong></td>
<td>1953</td>
<td>View of the harbour from the air or a tall high-rise SW of the Study Area. The completed marina at the foot of James Street is visible.</td>
</tr>
<tr>
<td><strong>Hamilton Spectator, August 6th, 1954</strong></td>
<td>1954</td>
<td>View of the harbour from the observation deck of the then new Hamilton Harbour Commission Building at the foot of James St. N. A ship is in the James St slip, and the harbour police building is also visible. Electrical servicing to the piers in noted by the presence of poles. There is a small copse of trees around a building east of James St, off Guise St, however most of the wharf complex is gravel surfaced.</td>
</tr>
<tr>
<td><strong>Aerial Photograph, Shot 4312-143</strong></td>
<td>1954</td>
<td>Within the Study Area: there is an increase in structures in the west end, including small...</td>
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<tr>
<td>Archives of Ontario, (accessed from McMaster University Lloyd Reeds</td>
<td></td>
<td>extensions of the piers/jettys. Otherwise, it is similar to the 1950 aerial photograph.</td>
</tr>
<tr>
<td>Library) (Figure 21d)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aerial Photograph</td>
<td>May 1954</td>
<td>SW view of Hamilton Harbour Commission Marine Dock from over the harbour, showing the stone drain at foot of James St N &amp; extension of the street to the dock.</td>
</tr>
<tr>
<td>HPL-LHA, Barcode 32022 18908967 1 (Figure 20b)</td>
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<tr>
<td>Hamilton Spectator, May 28th, 1957</td>
<td>1957</td>
<td>The article, on planned development in the Port of Hamilton, includes a photograph taken from the air over the harbour, looking southeast at the McNab to Catharine Street wharf complexes. Infilling between the early 19th century wharves is visible in that there is a low-lying land/made-land along the base of the shore bluff, with a smattering of structures in different locations to those on the earlier maps/plans; the ground surface appears to be a combination of lawn and rough surfaces. The Navy League building is present. The largest wharf complex within the Study Area in this photograph is that at the foot of Catharine Street which has a large structure on it which may be the extant Hamilton Port Authority warehouse; west of this structure the infilled wharf complex has a finished (ie paved) surface.</td>
</tr>
<tr>
<td>In HPL-LHA collection.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamilton Harbour. CHS. Scale 1:18,000</td>
<td>1959</td>
<td>At the foot of MacNab St: still known as a service wharf, with H.M.C. Marine Ry &amp; Dock building on right. At the foot of James St: long dredged section of water still present. To its right is James St Wharf, along with the Marine Police Patrol. At the foot of Hughson St: Marine Garage just east of police station. The shallow area is still present with the small docks along the shore, extending to the foot of John St. Between John and Catharine Streets are a few buildings on the wharf. An open area with no structures shown is located between the wharf and Guise St.</td>
</tr>
<tr>
<td>HPL-LHA, Call No. I-10-1959/1</td>
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<tr>
<td>Unused Spectator photograph</td>
<td>1960</td>
<td>Looking northeast along Guise Street from the top of the Hamilton Harbour Commission (HHC) building on James St. N. At this time, all the structures north of Guise Street within the Study Area are on the wharves and made-land below the shoreline, with none fronting Guise Street itself.</td>
</tr>
<tr>
<td>HPL_LHA collections, 1960-1969</td>
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<td></td>
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<tr>
<td>Construction of Pier 8 in 1960</td>
<td>1960</td>
<td>View south towards James &amp; Hughson Streets, with the outlined edge wall of the new</td>
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<tr>
<td>Aerial photograph, oblique</td>
<td></td>
<td>Pier 8 expansion visible. Note James Street N. extends right to the water.</td>
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<td><em>HPA 2012: 48</em></td>
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<tr>
<td>Fire Insurance Plan. Pages 100-3, 100-4, 101-1, 102-2, 103-1</td>
<td>1964</td>
<td>Topographic information no longer depicted. No major differences since 1947 fire insurance plan.</td>
</tr>
<tr>
<td><em>Figure 16</em></td>
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<tr>
<td>Soil Map of Wentworth County, Report No. 32</td>
<td>1965</td>
<td>Harbour area shown as part of the urban landscape of Hamilton, and has not been labelled.</td>
</tr>
<tr>
<td><em>Figure 16</em></td>
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<tr>
<td>Hamilton Harbour. CHS. Scale 1:18,000</td>
<td>1967</td>
<td>Similar to 1959 edition except there are boat docks off the west side of James St. Wharf. Pier 8 has been constructed off the west and north sides of the previous Catharine Street wharf, and retains the structures on its eastern edge. Surrounding the pier the water depth has been altered to 26 feet (previously 15 to 26').</td>
</tr>
<tr>
<td><em>HPL-LHA, Call No. II-2-1967/1</em></td>
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<tr>
<td>NTS 30 M/5 <em>(Figure 12b)</em></td>
<td>1968</td>
<td>Pier 8 now shown extant with a lagoon in the western area of the pier and a large structure in the northeastern corner of the pier.</td>
</tr>
<tr>
<td><em>Figure 12b</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamilton Harbour. CHS. Scale 1:18,000</td>
<td>Aug. 15</td>
<td>Piers 6-8 are as seem today, with only a later addition of docks in the marina off Pier 6. This map focuses on water depths, road system, major Hamilton factories and waterfront features. At the foot of MacNab St N is a service wharf, and two buildings are shown just to the east of the street, one of which is H.H.C. Marine Ry. &amp; Dock (Hamilton Harbour Commission Marine Railway &amp; Dock). The James St Wharf includes boat docks to its west and a 15-foot dredged out dock on the east. Abutting this is Pier 8 which includes a small marine garage and the Marine Police Patrol building on the southwestern portion of the pier. There is one small building in the southeast section while two large buildings comprise the northeast corner of the pier and belong to the H.H.C. as the Harbour Masters Office.</td>
</tr>
<tr>
<td><em>HPL-LHA, Call No. II-2-1969/2</em></td>
<td>1969</td>
<td></td>
</tr>
<tr>
<td>Halton-Wentworth Waterfront Study. Map 2 Land Use Concept. Project Planning Associates Limited</td>
<td>1974</td>
<td>This map shows the land uses of Hamilton. Pier 6 is recreational while Piers 7 and 8 are industrial.</td>
</tr>
<tr>
<td><em>HPL-LHA, Call No. II-3-1974/1</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamilton Harbour.</td>
<td>1977</td>
<td>This map focuses on water depths and other marine features and landscapes, but also shows main roads and railway system in Hamilton. The piers are labelled, with Pier 8</td>
</tr>
<tr>
<td><em>HPL-LHA, Call No. II-4-1977/1</em></td>
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<td></td>
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</table>

*Fisher Archaeological Consulting*
<table>
<thead>
<tr>
<th>Item</th>
<th>Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>known as Centennial Dock. Pier 6 has three buildings and a wharf. Pier 7 includes the James St Wharf and a large dock system, the marine patrol building, and small docks off the wharf. Pier 8 has three large buildings around the perimeter of the pier on the north and east edges.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NTS 30 M/5, Edition 10</td>
<td>1999</td>
<td>Similar to the 1984 edition. A large structure in the northwest edge of the Study Area, Pier 8, is no longer extant, and the roads within the piers, indicated on the 1984 edition, are no longer indicated.</td>
</tr>
<tr>
<td>Satellite Imagery</td>
<td>2004</td>
<td>Piers 6-8 are generally surfaced in asphalt or gravel, with variously sized structures for commercial and marine usage (eg warehouses, boat storage, Marine Police unit). Lawns are present by the Navy League and on the tip of Pier 6, and on the NW corner of Pier 8 (within and beyond the Study Area). James St. N., north of Guise St, is no longer apparent as a ‘street’. The Study Area north of Guise Street has been developed right up to the street edge, including at the top of slope between Hughson and John Streets. A small copse of trees marks the slope by the Navy League building and lawn. The SW corner of Guise &amp; Catharine Streets, within the Study Area, appears to be lawn with trees along the ROW edge.</td>
</tr>
<tr>
<td>Satellite Imagery</td>
<td>2015</td>
<td>The only apparent change since 2004 is the increase in development of the northwest corner of Pier 8, primarily beyond the Study Area.</td>
</tr>
</tbody>
</table>
APPENDIX B:
PHOTOGRAPHIC CATALOGUE - WEST HARBOUR PIERS 6 TO 8 EA, STAGE 1

**Date of Survey:** 22 March, 2016

<table>
<thead>
<tr>
<th>Photo # (DSCF0...)</th>
<th>Description</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>400-401</td>
<td>Pier 8, landscaped lawn between the large paved parking lot and the HWT Centre/Sarcoa Restaurant/Parks Canada Discovery Centre in the northwest corner of the Study Area</td>
<td>N, NNW</td>
</tr>
<tr>
<td>402-403</td>
<td>Pier 8, paved parking lot with rows of ditching, on western edge of pier</td>
<td>SW</td>
</tr>
<tr>
<td>404</td>
<td>Pier 8, paved parking lot with rows of ditching and light standards</td>
<td>SE</td>
</tr>
<tr>
<td>405-407</td>
<td>Pier 8, panoramic view of large paved parking lot along north edge of pier, marine freight terminal, and south section of parking lot</td>
<td>NE-SE</td>
</tr>
<tr>
<td>408</td>
<td>Pier 8, along north edge of pier with HWT Centre/Sarcoa Restaurant/Parks Canada Discovery Centre in background</td>
<td>NW</td>
</tr>
<tr>
<td>409</td>
<td>Pier 8, along north edge of pier with marine freight terminal on right</td>
<td>SE</td>
</tr>
<tr>
<td>410-412</td>
<td>Pier 8, southeast corner of large paved parking lot, showing slope, landscaping and parking lot with ditching</td>
<td>S-W</td>
</tr>
<tr>
<td>413-418</td>
<td>Pier 8, panoramic view from east edge of large paved parking lot, looking at existing utilities, structures, and landscaping</td>
<td>NNE-SW</td>
</tr>
<tr>
<td>419-420</td>
<td>Pier 8, looking mid-pier at utilities and stockpiles</td>
<td>S, SSE</td>
</tr>
<tr>
<td>421</td>
<td>Pier 8, south side of the marine freight terminal towards east edge of pier</td>
<td>ESE</td>
</tr>
<tr>
<td>422</td>
<td>Pier 8, marine freight terminal building sign</td>
<td>NNE</td>
</tr>
<tr>
<td>423</td>
<td>Pier 8, looking along south side of marine freight terminal</td>
<td>NNW</td>
</tr>
<tr>
<td>424-427</td>
<td>Pier 8, east side of pier showing stockpiling, (blue) Ocean company building and marked utilities</td>
<td>SW-ESE</td>
</tr>
<tr>
<td>428-430</td>
<td>Pier 8, pavement crumbling beside drainage</td>
<td>WNW</td>
</tr>
<tr>
<td>431-435</td>
<td>Pier 8, the foot of Catharine St with the Ocean company building, the HMCS Haida docked at Pier 9 and looking up Catharine St</td>
<td>NE-S</td>
</tr>
<tr>
<td>436</td>
<td>Pier 8, signs for the Naval building in background</td>
<td>W</td>
</tr>
<tr>
<td>437-440</td>
<td>Pier 8, southeast corner of pier, panoramic view showing landscaped lawn and naval building with old shoreline in background</td>
<td>S-WNW</td>
</tr>
<tr>
<td>441</td>
<td>Pier 8, southeast corner of pier, showing landscaped lawn and naval building with old shoreline in background</td>
<td>SW</td>
</tr>
<tr>
<td>442</td>
<td>Pier 8, east edge of pier showing the area between the Ocean company building and lake</td>
<td>NNE</td>
</tr>
<tr>
<td>443</td>
<td>Pier 8, from the foot of Catharine St looking up towards intersection with Guise St</td>
<td>SSW</td>
</tr>
<tr>
<td>444</td>
<td>Pier 8, from the foot of Catharine St looking back at landscaped lawn and old shoreline</td>
<td>SW</td>
</tr>
<tr>
<td>Photo # (DSCF0...)</td>
<td>Description</td>
<td>Direction</td>
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<tr>
<td>445</td>
<td>Pier 8, at foot of Catharine St showing Ocean company storage area</td>
<td>WNW</td>
</tr>
<tr>
<td>446-449</td>
<td>Catharine St/Guise St intersection, panoramic view of Guise St, southwest corner of intersection, and path along edge of Eastwood Park breaking up Catharine St</td>
<td>WNW-SSW</td>
</tr>
<tr>
<td>450-455</td>
<td>Catharine St/Guise St intersection, panoramic view showing east edge of Eastwood Park with path which Catharine St continues on other side, old shoreline slope, Guise St and intersection</td>
<td>SW-N</td>
</tr>
<tr>
<td>456</td>
<td>Catharine St/Guise St intersection, showing marked oil pipeline on west edge of Catharine St with Guise St in back-right of photo</td>
<td>W</td>
</tr>
<tr>
<td>457-458</td>
<td>Catharine St/Guise St intersection, old shoreline slope conditions</td>
<td>NW, NNW</td>
</tr>
<tr>
<td>459-460</td>
<td>Guise St, north sidewalk with old shoreline slope, naval building in background</td>
<td>N</td>
</tr>
<tr>
<td>461-462</td>
<td>Guise St, looking back at Catharine St/Guise St intersection showing landscape, utilities and oil pipeline</td>
<td>SSE, SE</td>
</tr>
<tr>
<td>463-465</td>
<td>Guise St, panoramic view of intersection and along the slope/shoreline on south side of Guise St</td>
<td>SSE-SSW</td>
</tr>
<tr>
<td>466-467</td>
<td>Guise St, south side of road, showing retaining wall and staircase from apartment buildings</td>
<td>SSW</td>
</tr>
<tr>
<td>468</td>
<td>Guise St, looking to north side of road at slope and east side of Pier 8 in background</td>
<td>NNE</td>
</tr>
<tr>
<td>469</td>
<td>Guise St, showing top of old shoreline and landscaping, with oil pipeline in background</td>
<td>NW</td>
</tr>
<tr>
<td>470-471</td>
<td>Guise St, along north side of street, showing landscaping and disturbance beside oil pipeline at top of old shoreline</td>
<td>N, WNW</td>
</tr>
<tr>
<td>472-474</td>
<td>Guise St, oil pipeline and landscaping on old shoreline</td>
<td>N-NW</td>
</tr>
<tr>
<td>475</td>
<td>Guise St, beside oil pipeline, looking back along north side to Catharine St/Guise St intersection</td>
<td>E</td>
</tr>
<tr>
<td>476</td>
<td>Guise St, at foot of John St looking at oil pipeline, marked utilities and old shoreline</td>
<td>NE</td>
</tr>
<tr>
<td>477</td>
<td>Guise St, at foot of John St looking towards Brewer’s Marine Supply on Pier 8</td>
<td>SW</td>
</tr>
<tr>
<td>478</td>
<td>Guise St, looking towards Brewer’s Marine Supply on Pier 8</td>
<td>NE</td>
</tr>
<tr>
<td>479</td>
<td>Guise St, looking along north side of street from base of Pier 8 towards Piers 7 and 6, with Discovery Dr in foreground</td>
<td>SW</td>
</tr>
<tr>
<td>480</td>
<td>Guise St/Discovery Dr intersection, looking towards west edge of Pier 8 with current construction</td>
<td>N</td>
</tr>
<tr>
<td>481</td>
<td>Guise St/Discovery Dr intersection, looking towards entrance to Pier 7 marine offices and boat storage</td>
<td>NW</td>
</tr>
<tr>
<td>482</td>
<td>Pier 8, old shoreline on east side of Discovery Dr</td>
<td>NE</td>
</tr>
<tr>
<td>Photo # (DSCF0...)</td>
<td>Description</td>
<td>Direction</td>
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<tr>
<td>483-486</td>
<td>Pier 8, panoramic view of Guise St/Discovery Dr intersection, old shoreline, back of Brewer's, large yacht storage structure, and current construction along west edge of pier</td>
<td>SE-N</td>
</tr>
<tr>
<td>487</td>
<td>Pier 8, behind Brewer's with a gravel parking and storage area</td>
<td>S</td>
</tr>
<tr>
<td>488</td>
<td>Pier 8, behind Brewer's, showing old shoreline and yacht storage</td>
<td>SE</td>
</tr>
<tr>
<td>489</td>
<td>Pier 8, from behind Brewer's showing yacht storage, gravel parking area and yellow stake marking oil pipeline</td>
<td>ESE</td>
</tr>
<tr>
<td>490</td>
<td>Pier 8, from behind Brewer's showing Discovery Dr and slope up to Guise St</td>
<td>SW</td>
</tr>
<tr>
<td>491</td>
<td>Pier 8, looking from Discovery Dr towards large yacht storage structure</td>
<td>NE</td>
</tr>
<tr>
<td>492</td>
<td>Pier 8, south end of current construction along west edge of pier with Hamilton Police Marine Unit (HPMU) in background</td>
<td>WSW</td>
</tr>
<tr>
<td>493</td>
<td>Pier 6, showing west edge of pier (immediately outside Study Area)</td>
<td>NNE</td>
</tr>
<tr>
<td>494</td>
<td>Pier 6, Harbour-West Hamilton building</td>
<td>NE</td>
</tr>
<tr>
<td>495</td>
<td>Pier 6, Harbour-West Hamilton building and yacht storage</td>
<td>E</td>
</tr>
<tr>
<td>496</td>
<td>Pier 6, looking towards Guise St showing slope and retaining wall</td>
<td>S</td>
</tr>
<tr>
<td>497</td>
<td>Pier 6, at top of slope with Guise St to left, showing slope conditions to west</td>
<td>W</td>
</tr>
<tr>
<td>498</td>
<td>Pier 6, retaining wall north of Guise St</td>
<td>E</td>
</tr>
<tr>
<td>499</td>
<td>Pier 6, retaining wall north of Guise St, gravel parking and storage area, with Hamilton Port Authority (HPA) Building in background (located on southwest corner of Guise St/James St intersection)</td>
<td>S</td>
</tr>
<tr>
<td>500-501</td>
<td>Pier 6, along waterside of pier looking at Kerr Pier</td>
<td>E, NE</td>
</tr>
<tr>
<td>502</td>
<td>Pier 6, looking at stone drainage wall at foot of James St</td>
<td>SSE</td>
</tr>
<tr>
<td>503</td>
<td>Pier 6, looking back at James St with stone wall to left and HPA building in background</td>
<td>S</td>
</tr>
<tr>
<td>504-507</td>
<td>Pier 6, panoramic view of pier's paved area, buildings and Kerr Pier from base of Kerr Pier by stone wall</td>
<td>SSW-N</td>
</tr>
<tr>
<td>508</td>
<td>Pier 6, Kerr Pier showing stored boats</td>
<td>NNE</td>
</tr>
<tr>
<td>509</td>
<td>Pier 6/Pier 7 boundary, showing Pier 6 utilities and buildings</td>
<td>NW</td>
</tr>
<tr>
<td>510</td>
<td>Pier 6/Pier 7 boundary, showing stone wall at foot of James St, with utilities and landscaping</td>
<td>NNE</td>
</tr>
<tr>
<td>511-513</td>
<td>Pier 7, panoramic view along west edge of pier (Askew Pier), showing paved and sodded areas, utilities and stored yachts</td>
<td>NNE-SE</td>
</tr>
<tr>
<td>515-516</td>
<td>Pier 7, parallel to Guise St, showing utilities, retaining wall and slope to yacht storage</td>
<td>SW, NE</td>
</tr>
<tr>
<td>517</td>
<td>Pier 7, parallel to Guise St, showing utilities, retaining wall and slope to yacht storage</td>
<td>NE</td>
</tr>
<tr>
<td>Photo #</td>
<td>Description</td>
<td>Direction</td>
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<tr>
<td>518</td>
<td>Pier 7, looking towards foot of James St with Pier 6 in background, and paved area in foreground</td>
<td>NNW</td>
</tr>
<tr>
<td>519</td>
<td>Pier 7, showing paved area with yacht storage</td>
<td>N</td>
</tr>
<tr>
<td>520</td>
<td>Pier 7, looking towards entrance to Pier 7 marine offices and boat storage with Pier 8 in background</td>
<td>NE</td>
</tr>
<tr>
<td>521</td>
<td>Pier 7, looking along paved area towards Pier 6</td>
<td>SW</td>
</tr>
<tr>
<td>522</td>
<td>Pier 7, from end of Askew Pier looking back towards foot of James St and stone wall/drainage</td>
<td>SSW</td>
</tr>
<tr>
<td>523</td>
<td>Pier 7, from Askew Pier showing landscaped area with utilities just south of HPMU property</td>
<td>ESE</td>
</tr>
<tr>
<td>524</td>
<td>Pier 7, from Askew Pier looking at back of HPMU property</td>
<td>E</td>
</tr>
<tr>
<td>525</td>
<td>Pier 7, from Askew Pier showing utilities, landscaping and HPMU property</td>
<td>NE</td>
</tr>
<tr>
<td>526</td>
<td>Pier 7, looking along Askew Pier with HPMU property to right and current construction along west edge of Pier 8</td>
<td>NNE</td>
</tr>
<tr>
<td>527-531</td>
<td>Pier 7, foot of Askew Pier, panoramic view of Pier 8, current construction, and HPMU</td>
<td>NNE-S</td>
</tr>
<tr>
<td>532-533</td>
<td>Pier 7, at foot of Askew Pier looking towards Pier 6's Kerr Pier with the stone wall/drainage at foot of James St</td>
<td>SW-S</td>
</tr>
<tr>
<td>534</td>
<td>Pier 8, paved and gravel area currently housing garbage and construction machinery, between the large yacht storage structure and the northern large paved parking lot</td>
<td>E</td>
</tr>
<tr>
<td>535</td>
<td>Pier 8, beside Williams Fresh Café looking at parking lot, landscaping, and current construction</td>
<td>SE</td>
</tr>
<tr>
<td>536</td>
<td>Pier 8, beside Williams Fresh Café looking at south edge of parking lot, landscaping, and utilities, with marine freight terminal in background</td>
<td>E</td>
</tr>
<tr>
<td>537-538</td>
<td>Pier 8, current construction along west edge of pier, with HPMU in background to right</td>
<td>SSE-S</td>
</tr>
</tbody>
</table>