City of London

Cultural Heritage Evaluation Report
The Queen's Bridge (1-BR-05)
Queens Avenue over Thames River

Prepared by:

AECOM
410 – 250 York Street, Citi Plaza
London, ON, Canada N6A 6K2
www.aecom.com

519 673 0510 tel
519 673 5975 fax

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Project Number: 60552850

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AECOM: 2015-04-13

Signatures

Report Prepared By:

Michael Greguol, MA
Cultural Heritage Specialist

Report Reviewed By:

Fern Mackenzie, MA, CAHP
Senior Architectural Historian

Distribution List

# Hard Copies	PDF Required	Association / Company Name
2	1	City of London
0	1	AECOM Canada Ltd.

Revision History

Revision #	Date	Revised By:	Revision Description
0	November 30, 2017	Michael Greguol	Draft Cultural Heritage Evaluation Report
1	February 26, 2018	Michael Greguol	Revised Draft Cultural Heritage Evaluation Report
2	March 20, 2018	Michael Greguol	Revised Draft Cultural Heritage Evaluation Report
3	March 22, 2018	Michael Greguol	Final Cultural Heritage Evaluation Report

Executive Summary

AECOM Canada Ltd. (AECOM) was retained by the City of London to conduct a Cultural Heritage Evaluation Report (CHER) as a part of a series of studies including a Preliminary Structural Design Report and Structural Evaluation Report for The Queen's Bridge (Structure No. 1-BR-05) on Queens Avenue over the North Branch of the Thames River. At the time of the preparation, there is no specific proposed undertaking; however, the design report being undertaken concurrently is anticipated to provide recommendations for rehabilitation activities for the bridge.

This CHER was prepared according to the guidelines set out in the Ontario Ministry of Tourism, Culture, and Sports' *Heritage Resources in the Land Use Planning Process* document included as a part of the *Ontario Heritage Toolkit.* For the purposes of this report, AECOM undertook the following tasks:

1) Preparation of a land use history of the Study Area based on a review of:
    a) Primary and secondary resources;
    b) Historic mapping.
2) A review of the City of London's *Inventory of Heritage Resources,* as well as the Ontario Heritage Trust's online inventory of buildings, museums, and easement properties, the Canadian Register of Historic Places, and the Directory of Federal Heritage Designations.
3) A site investigation, undertaken on October 20, 2017 to document the existing conditions of the bridge structure and its associated landscape.
4) Evaluation of the bridge structure and its landscape using *Ontario Regulation 9/06, Criteria for Determining Cultural Heritage Value or Interest*.

When evaluated according to the criteria outlined in *Ontario Regulation 9/06, Criteria for Determining Cultural Heritage Value or Interest*, the bridge did not meet any of the criteria. As a result, The Queen's Bridge does not demonstrate sufficient cultural heritage value and thus a Statement of Cultural Heritage Value and a list of Heritage Attributes were not developed. The bridge is located between two of the City's Heritage Conservation Districts, the Blackfriars-Petersville HCD and the Downtown London HCD. The bridge connects the two HCDs, however it is not included in either HCD. Further, the bridge crosses the Thames River, a Canadian Heritage River. No further reporting related to cultural heritage is recommended for this structure.

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1. Introduction

1.1 Study Purpose

AECOM Canada Ltd. (AECOM) was retained by the City of London to conduct a Cultural Heritage Evaluation Report (CHER) as a part of a series of studies including a Preliminary Structural Design Report and Structural Evaluation Report for The Queen's Bridge (Structure No. 1-BR-05) on Queens Avenue over the North Branch of the Thames River (Figure 1 and Figure 2). At the time of the preparation, there is no specific proposed undertaking; however, the design report being undertaken concurrently is anticipated to provide recommendations for rehabilitation activities for the bridge.

1.2 Study Method

This CHER was prepared according to the guidelines set out in the Ontario Ministry of Tourism, Culture, and Sports' *Heritage Resources in the Land Use Planning Process* document included as a part of the *Ontario Heritage Toolkit.* For the purposes of this report, AECOM undertook the following tasks:

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1.3 Metric Measurements

Between 1971 and 1984 Canada adopted the metric system. All structural dimensions in this text are given in Imperial units. In general, the use of Imperial rather than Metric is preferred for describing historic structures. Engineered structures were often built to standard Imperial dimensions and distinctive patterns within such structures can be obscured by converting the original Imperial to Metric units. Unless there are historical issues (i.e. contract specifications), distances and other common measurements are given in Metric units.

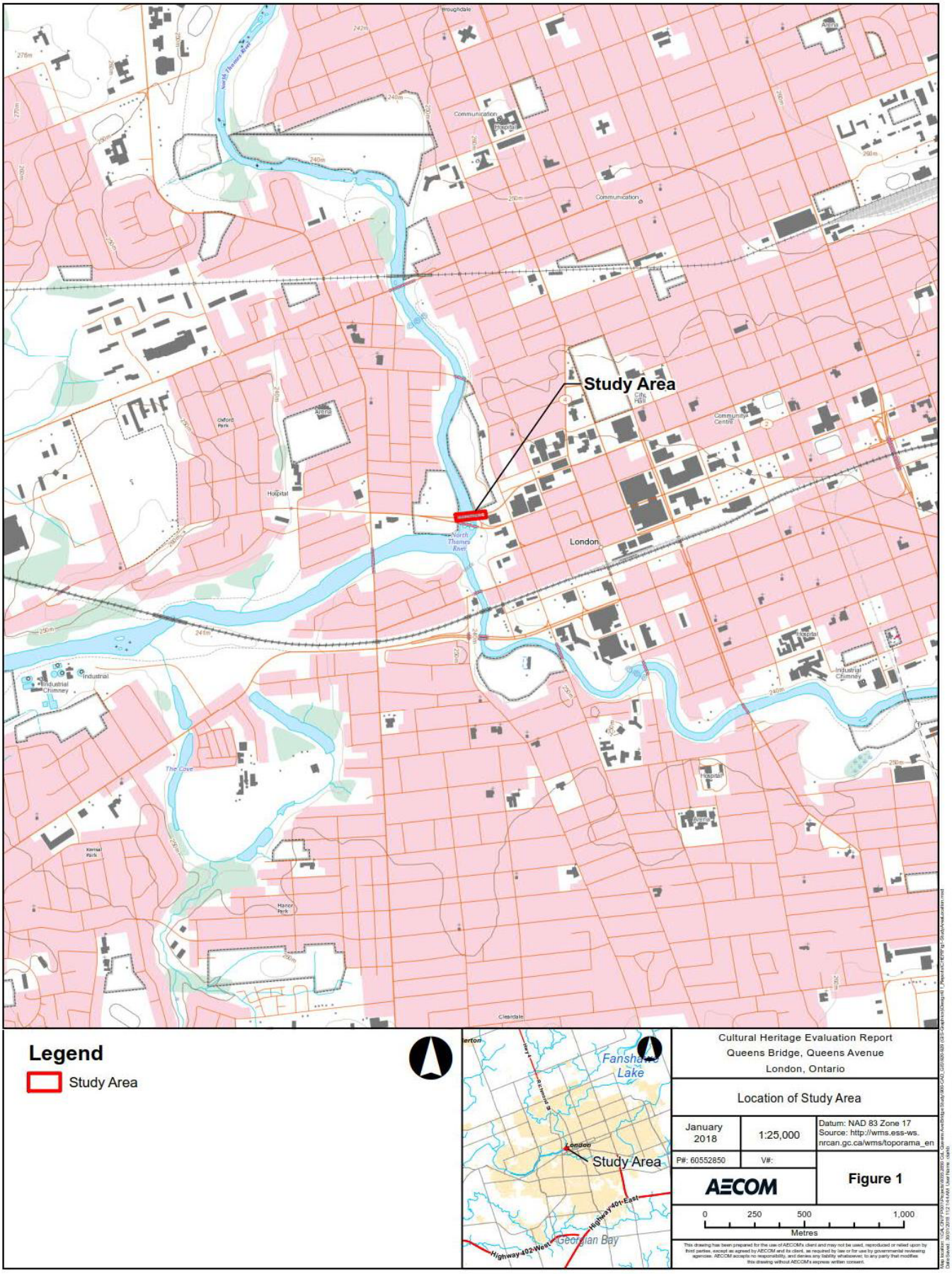

Figure 1: Location of Study Area

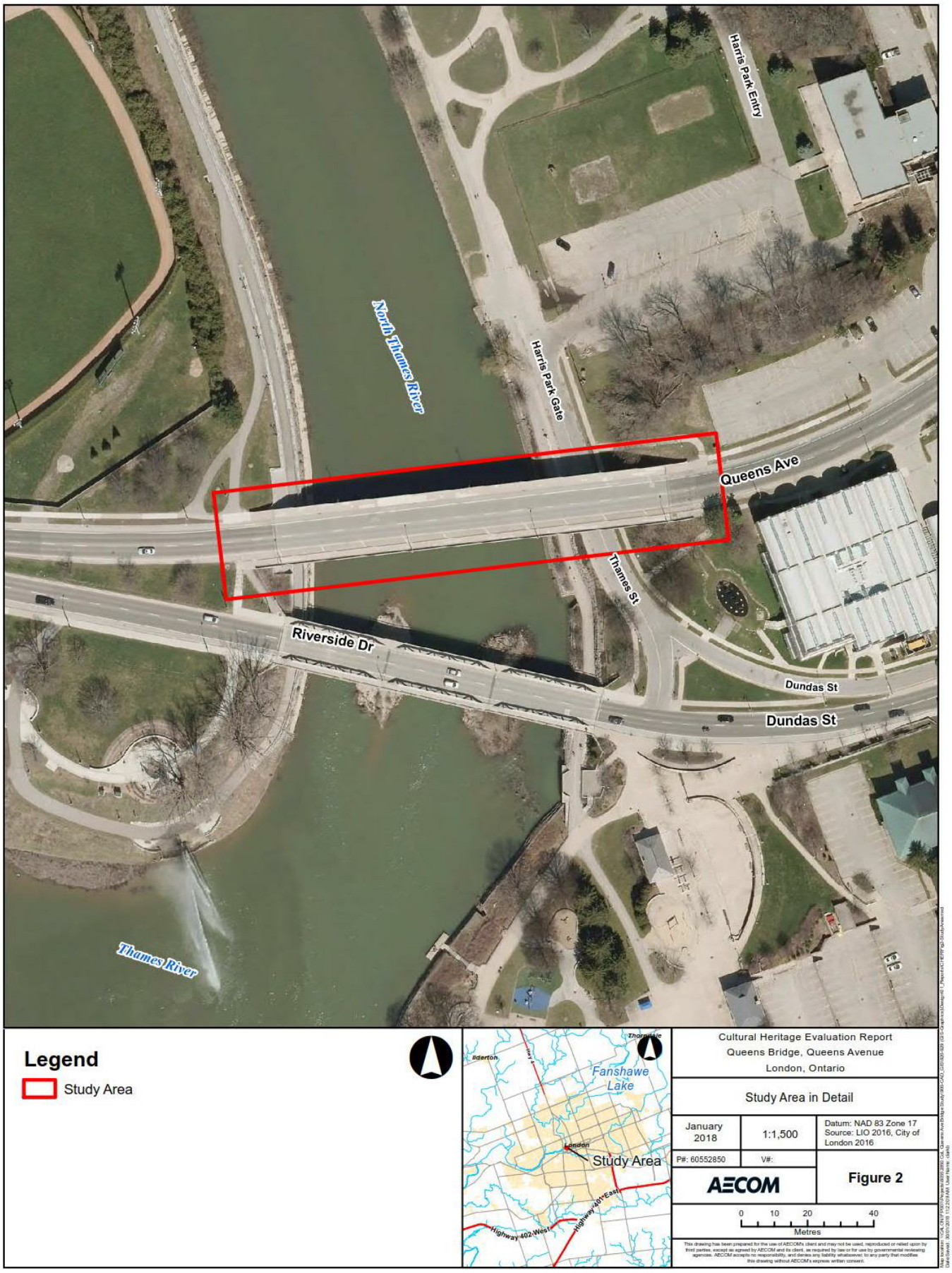

Figure 2: Study Area in Detail

2. Policy and Planning Framework

2.1 Environmental Assessment Act

This report has been produced to satisfy cultural heritage reporting requirements typically undertaken as part of the Ontario Environmental Assessment (EA) process. Pursuant to the *Environmental Assessment Act* (R.S.O. 1990, Chapter E.18), applicable infrastructure improvements and development projects are subject to appropriate studies to evaluate and assess the potential related impacts of a project on the social, economic, or cultural environment, i.e. the cultural heritage of an area. Infrastructure improvement projects have the potential to impact cultural heritage resources in various ways including, but not limited to:

- Loss or displacement of resources through removal or demolition;
- Disruption of resources by introducing physical, visual, audible, or atmospheric elements that are not in keeping with the resources and their contextual surroundings.

It is understood that at this stage, an Environmental Assessment for the bridge project has not been initiated; however, this report utilizes the methods and practice typically undertaken for cultural heritage reporting as required by the EA process.

2.2 Additional Guidelines

The methods of analysis used in the cultural heritage resource assessment process addresses cultural heritage resources under various pieces of legislation and their supporting documentation:

- *Environmental Assessment Act* (R.S.O. 1990, Chapter E.18)
    - o *Guidelines for Preparing the Cultural Heritage Resource Component of Environmental Assessments* (MCC-MOE 1992)
    - o *Guidelines on the Man-Made Heritage Component of Environmental Assessments* (MCR-MOE 1981)
- *Planning Act* (R.S.O. 1990, Chapter P.13)
    - o *Heritage Resources in the Land Use Planning Process*, 2005 Provincial Policy Statement
- *Ontario Heritage Act* (R.S.O. 1990,Chapter O.18) and Ministry of Tourism, Culture, and Sport
    - o *Ontario Heritage Toolkit* (MCL 2006)

2.3 City of London Official Plan

The City of London Official Plan (OP) outlines a policy context for land use planning, amongst other items, within the City of London. Chapter 13 of the OP identifies planning policies, goals, and objectives associated with the identification, evaluation, and management of cultural heritage resources (built heritage, cultural heritage landscapes, and archaeological resources) within the City. Specifically, the objectives of the OP as they relate to heritage conservation include:

- Protect in accordance with Provincial policy those heritage resources which contribute to the identity and character of the City;
- Encourage the protection, enhancement, restoration, maintenance, and utilization of buildings, structures, areas, or sites within London which are considered to be of cultural heritage value or interest to the community;

- Encourage new development, redevelopment, and public works to be sensitive to, and in harmony with, the City's heritage resources; and
- Increase public awareness and appreciation of the City's heritage resources, and encourage participation by the public, corporations, and other levels of government in the protection, restoration, and utilization of these resources.

In addition, the City maintains a descriptive inventory of properties of cultural heritage value or interest. The City of London's *Inventory of Heritage Resources* (2006) includes information related to the listing of properties in London. The inventory includes a priority level system for identifying properties of greater priority and/or significance for heritage recognition. In addition, properties designated under the *Ontario Heritage Act* are maintained in the City's inventory. The inventory is a living document subject to changes and approvals by City Council, advised by the London Advisory Committee on Heritage.

Lastly, the City of London's Strategic Plan set out a broad direction for the future of London. It identifies London City Council's vision, mission, values, strategic areas for focus and the specific strategies that define how Council and Administration will respond to the needs and aspirations of Londoners. As such, as part of the City's initiative for "Building a Sustainable City," the Strategic Plan identifies the management of upgrading of transportation infrastructure such as heritage bridges, and more specifically, the Heritage Bridge Preservation Strategy as a part of its focus on robust infrastructure.

3. Historical Overview

3.1 Natural Environment and Physical Setting

The Queen's Bridge is located within the Caradoc Sand Plains and London Annex physiographic region, which are characterized by small sand plains typically located west and east of London. At the site of the bridge, the landscape consists of a wide valley with relatively steep valley walls located in downtown London. The Thames Valley Parkway, a recreational trail extends along both the east and west sides of the river at the bridge. Both portions of the trail pass under the bridge (Images 1 and 2).

The bridge structure carries Queens Avenue over the North Branch of the Thames River. The river runs through London, flows southwest towards Chatham and eventually drains into Lake St. Clair. The South Branch of the Thames River meanders from Woodstock through south London before joining the North Branch at the Forks of the Thames River just south of The Queen's Bridge. At the site of the bridge, the river flows through a wide channel with shallow sloped banks on the east side of the river. The west side of the river is defined by the West London Dyke, which has recently undergone significant repairs and reconstruction. Two concrete piers, located within the river support the bridge.

Image 1: View looking north from The Queen's Bridge showing the Thames River and the Thames Valley Parkway trails on either side of the river.

Image 2: View looking south from The Queen's Bridge showing the Thames River and Kensington Bridge located south of the existing Queen's Bridge.

3.2 Historic Context

3.2.1 Local Historic Context

The Queen's Bridge is located in what was historically London Township, in Middlesex County. The Township of London was first surveyed by Colonel Mahlon Burwell in 1810. The lots were laid out using the double front survey system which was commonly used by the Crown between 1815 and 1829. The survey was put on hold during the War of 1812 but resumed once peace had been re-established and a total of 3,850 acres of land was reserved by Lieutenant Governor Simcoe for the future town of London. In 1826, the town plot was surveyed by Mahlon Burwell with settlement beginning shortly after around the Forks of the Thames River along Ridout Street and the Talbot Block. Settlement in London began to expand rapidly after the construction of the London District Courthouse (Middlesex County Courthouse) in 1827 with the population reaching 1,000 by 1835.

The Thames River had a profound impact on the growth of London. Historically, the City developed at the confluence of the north and south branches of the river, and as a result bridge construction has been important in connecting London to the various surroundings areas.

London underwent a number of population booms throughout its history beginning when the 32nd Regiment was stationed in London in 1838. Development of saw, cording, and grist industry powered by the Thames River and Medway Creek assisted the City's growth in the mid 1800's, bolstered by the arrival of the railways in the 1850s with the Great Western Railway in 1853, the London Port Stanley Railway in 1856, and the Grand Trunk Railway in 1858. Steady growth in London continued as the City was established as a financial centre for the surrounding regions with large manufacturing industries taking root, including the Carling Brewery and Labatt's Brewery and the

London cigar industry. London was incorporated as a Village in 1840 and by 1855 the population had leapt to 10,000 at which time it officially became a City.

The former London Township survey system laid out by Burwell created a grid pattern of eight 100-acre lot allowances.[1] The resulting survey created much of the modern farm landscape that is still visible in the rural areas north of London. The survey pattern also created the modern road pattern that is still visible today. The portion of Queens Avenue that is carried over the Thames River was not constructed as part of the urban road pattern until the late-20th century as part of an extension of Queens Avenue. The road network and transportation patterns in and out of downtown at this location was significant realigned in the 1960s and 1970s, resulting ultimately in the extension of Queens Avenue first from Talbot Street to Ridout Street, and then further west across the Thames River. This is discussed further in Section 3.2.3.

By the late-19th century, the areas surrounding the future bridge crossing were developing as the City grew westwards across the river. Indeed, the late-19th century was a period of political and geographic expansion for the City of London, most of which focussed on the area surrounding the future bridge along the Queens Avenue alignment. For most of the 19th century, the Thames River acted as a natural geographic boundary for the developing City located east of the river. However, beginning in the mid-nineteenth century Samuel Peters – a surveyor, businessman, and later politician – and John Kent, both landowners west of the river subdivided their lands between what would become Wharncliffe Road and the river. Petersville, the result of Samuel Peter's survey located north of Blackfriars Street developed as a village on the outskirts of London. Meanwhile, Kent's land between Blackfriars Street and the confluence of the North Branch and the main branch of the Thames River was divided into larger lots and the area became popularly known as Kensington.

Plans to develop the Kensington area were delayed, most notably by flooding in 1873, and by 1874, the area was joined with Petersville to be incorporated as the Village of Petersville, renamed London West in 1881. By the end of the century bridge crossings had been constructed at Blackfriars Street (first in 1831), connecting the north end of London West to the City, and at Dundas Street (Kensington Bridge, first constructed in 1871) connecting the south end of London West to the City via the Kensington Bridge. In 1897, the London Street Railway constructed a bridge immediately adjacent to the Kensington Bridge. The bridge opened a day after London West was annexed by the City of London, symbolically connecting the two areas (Images 3 and 4).

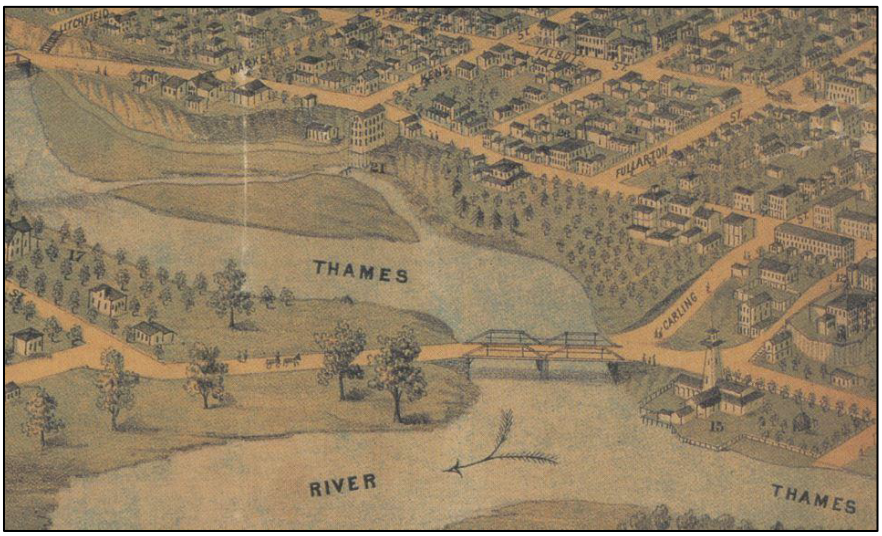

Image 3: Detail of the 1872 Bird's Eye View of London, Ontario showing an early version of the Kensington Bridge in the foreground as the only crossing at this point.

[1] *Typically the double front survey system was designed to lay out ten 100-acre lots, however, the system used in London Township laid out eight 100-acre lots.*

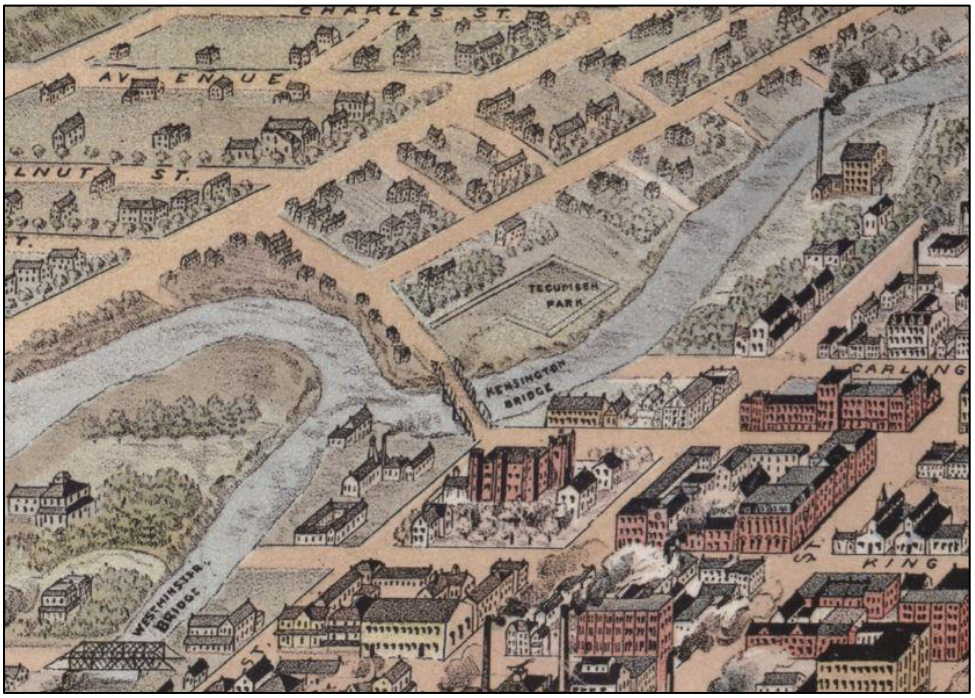

Image 4: Detail of the 1893 Bird's Eye View of London, Ontario showing the development of Petersville/London West, on the west side of the Thames River

At the beginning of the 20th century a handful of residential dwellings are depicted on the north and south sides of Dundas Street/Riverside Drive within the vicinity of the future Queen's Bridge. In addition, sketches of the area from as early as 1890 and into the early 20th century depict Tecumseh Park, now known as Labatt Park, arguably the oldest continually operated ballpark in the world. Historic topographic mapping indicates that by the early and mid-20th century, that the district once known as Petersville, later London West, had become a well-developed suburb just outside of downtown London (Images 5, 6, and 7, Figure 3, Figure 4, and Figure 5).

By the late-20th century the areas on both sides of the future bridge crossing were completely developed with commercial and institutional properties on the east side of the river, and residential properties located on the west side of the river. In 1965, prior to the construction of The Queen's Bridge, three houses are shown on the north side of Dundas Street within the path of the future merging of the Queens Avenue extension and Riverside Drive. The houses were evidently demolished to accommodate the new road extension. Likewise, the Riverside Hotel, a large inn built at the corner of the forks in 1880, was eventually demolished. The hotel was located just southwest of The Queen's Bridge and Kensington Bridge within the vicinity of what is now Mitchell A. Baran Park. The construction of The Queen's Bridge and the realigning of Queens Avenue with Riverside Drive have had a lasting visual and functional impact on the road networks and landscape in this area of London that remains in the 21st century (Figure 6).

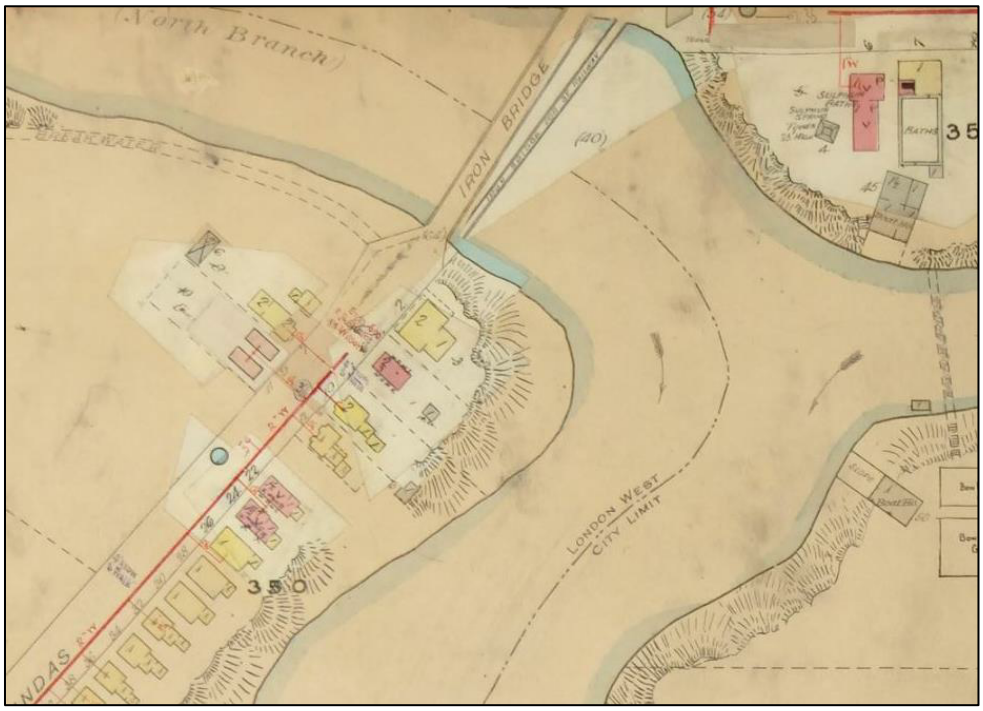

Image 5: Detail of the 1892 revised 1907 Fire Insurance Plan showing former buildings within the vicinity of the existing Queen's Bridge

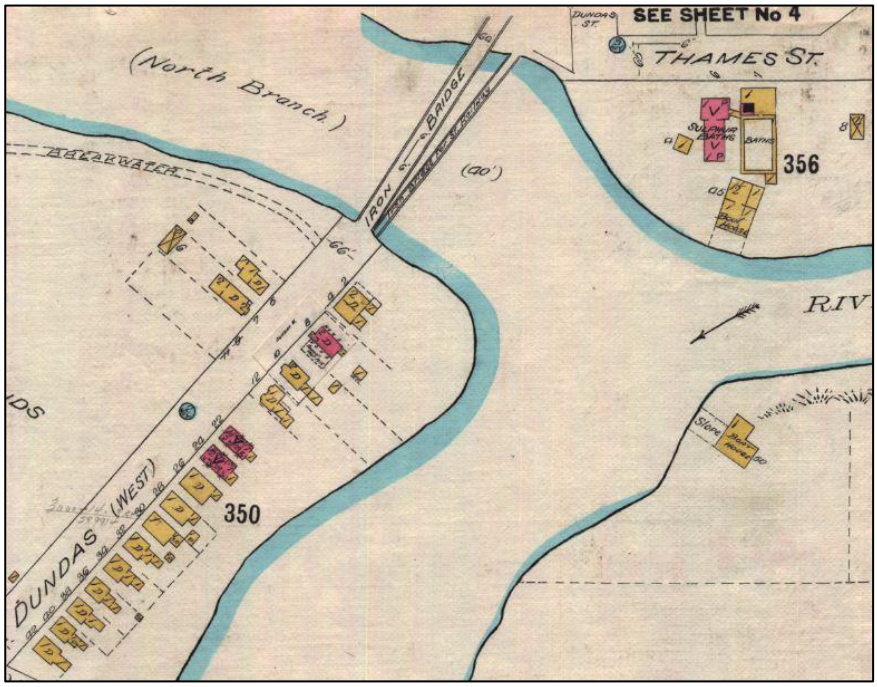

Image 6: Detail of the 1912 revised 1922 Fire Insurance Plan showing buildings on north side of Dundas Street/Riverside Drive that have since been demolished to accommodate the extension of Queens Avenue across the Thames River

Image 7: Aerial photograph, 1922, showing buildings on the north side of Dundas Street/Riverside Drive that have since been demolished to accommodate the extension of Queens Avenue across the Thames River

3.2.2 Bridge Building Context

Most original public highway bridges were built and owned by a municipality such as a county, town or a township. Much more rarely, they were owned by the province. Matters pertaining to bridge ownership have been dictated by the *Ontario Municipal Act* since 1867. The construction and operation of bridges over water courses that formed boundaries between townships were always assumed by an upper level of government, such as a County.

Most 19th-century bridges in southern Ontario were built of timber. Short spans were beam structures; longer spans employed simple trusses, such as King and Queen Post trusses. A few iron truss bridges were built in the 1870s-1880s but were generally too costly to be widely used. A few iron bridges – an early version of the Victoria Bridge, the well-known Blackfriar's Bridge, and an early version of the Kensington Bridge among others – were built within London.

The economic value to communities of good roads, and by extension good bridges, was becoming evident. Nineteenth-century wooden bridges could not carry the weight of heavier wagon and street railway equipment coming into use. By the First World War, motor vehicles were becoming increasingly common and the provincial government began to provide grant programs and technical advice on bridge building. At the same time, counties began to create county-wide road networks by assuming the ownership of key township roads and bridges.

Inexpensive steel trusses came into use in the 1890s and the designs were commonly used into the 1930s. The Pratt truss and the Warren truss dominated the early-20th century, and were typically used for spans of up to 400 feet.[2]

Concrete became widely used to construct short span bridges. One of the earliest forms was the solid spandrel concrete arch design that was inexpensive to build. This design consisted of solid concrete spandrel walls that held back the stone rubble and earth fill on the interior of the arch. The arch itself was constructed reinforcing steel bars. By the 1930s, concrete challenged steel as the primary bridge-building material of choice and various concrete bridges types have since been used for road bridge construction. Concrete and steel continue to be used in bridge construction into the 21st century.

3.2.3 Queens Avenue Extension and The Queen's Bridge

The road network and transportation patterns along Queens Avenue were extensively realigned and altered in the second half of the 20th century. Ultimately, by the mid-1970s this resulted in the extension of Queens Avenue approximately 180 m west from its termination at Talbot Street and then its eventual realignment and extension across the Thames River. Beginning in 1949, a modest widening of Queens Avenue between Wellington Street and Waterloo Street was the first step in a much larger plan to ease traffic in downtown London. The widening would mark the start of more than two decades of traffic improvement planning, design, and construction that would impact the transportation network on Queens Avenue.

As noted above, prior to the mid-1960s, Queens Avenue terminated at Talbot Street. Its extension would become a subject of debate between various committees and councils as well as landowners at Talbot Street and Queens Avenue. Central to landowner involvement was the Middlesex Motors Company Ltd. property, owned by Donald H. Swift. The business occupies a majority of the block required for any extension of Queens Avenue westward. In 1958, City Council authorized discussions to proceed with Swift regarding a future extension of the road through his company's property. In addition, three residential properties were also noted as requiring acquisition however the Middlesex Motors property was identified as key to any proposed extension plan.

Discussions and proposals between the City and Swift regarding the Middlesex Motors property continued between 1958 to 1963 which included various land swap proposals that would allow for the city to acquire the property on the condition that additional land be made available for Middlesex Motors to build within the vicinity in order to relocate the business. A proposal for a separate parking structure was also brought into various proposals that would result in additional parking for 500-1,000 cars. The proposed parking structure was noted as representing an increase in up to 25% in parking spaces in the downtown area.

In early 1964, after several years of proposals, negotiations, Ontario Municipal Board hearings and council decisions, a deal was reached between the City and Middlesex Motors that would allow for the demolition of the key property in order to accommodate an extension of Queens Avenue. In May 1964, a ground-breaking ceremony was held in which Mayor Gordon Stronach broke ground in the approximate location of where Queens Avenue would meet Ridout Street North, and John D. King, Vice-President of marketing for Ford Motor Company of Canada Limited undertook the same ceremonial ground-breaking in the spot where the new Middlesex Motors buildings would be constructed. By the end of the year, Queens Avenue was completed to Ridout Street North (Image 8)

The next step in extending Queens Avenue was to further extend the road across the river. Based on various traffic improvements recommendations coming out of the "Margison Report", a traffic and engineering study commissioned by the city, the City began pursuing the construction of a new bridge crossing in and out of the city's

[2] *T. Allan Comp and Donald Jackson, "Bridge Truss Types: A Guide to Dating and Identifying," in American Association for State and Local History, 1977; National Park Services, "Trusses: A Study by the Historic American Engineering Record, 1976.*

core. Queens Avenue was identified as a preferred road to further extend across the river and in 1970, the City's traffic committee approved a proposal to further extend Queens Avenue across the river to Wharncliffe Road.[3]

Within three years, a new bridge was constructed in 1973 as part of the extension Queens Avenue across the river. The bridge opened in September 1973, and caused some immediate but short-lived traffic confusion amongst drivers. The structure was designed by M. M. Dillon Limited, a consulting engineering firm retained by the City to design the new bridge. A.K. Rowntree, City Engineer oversaw the design, and McKay-Cocker Construction Ltd. undertook the construction of the bridge. When completed, the bridge functioned as a two-way bridge for a week while repairs to the Kensington Bridge were carried out; however, since then it has remained a west-bound bridge, while east-bound traffic into downtown has since been carried on the Kensington Bridge (Images 9 and 10).[4] In July 1973, the Streets, Traffic and Transportation Committee for the City of London recommended that the bridge be named "The Queen's Bridge". Although there is no specific reference to its naming being associated directly with Queen Elizabeth II, it is likely given the formal naming and the Queen's June 1973 visit to London, that the bridge was named for this reason.

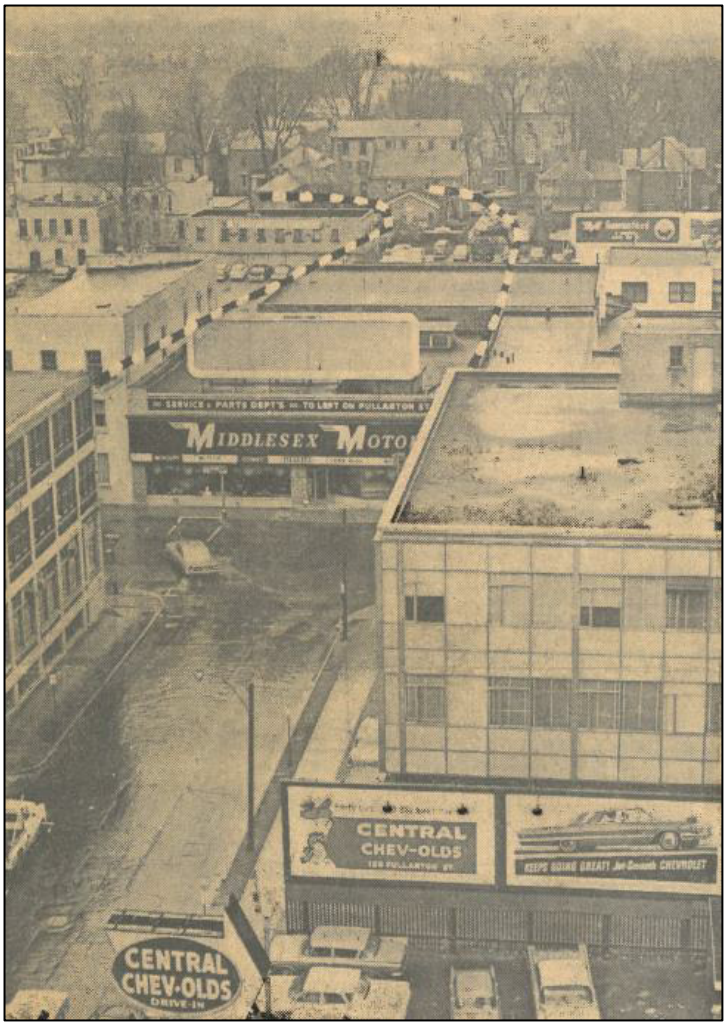

Image 8: View looking west along Queens Avenue to its former termination at Talbot Street as shown in the London Free Press, October 8, 1963. This Middlesex Motors building is shown in the centre of the photograph and the various buildings behind it that would be acquired for the extension of Queens to Ridout Street North in 1964.

[3] *Kevin J. Cook, "London's Inadvertent Triumph: The Margison Report, 1958-1972" in Guy St. Denis, Editor, Simcoe's Choice: Celebrating London's Bicentennial 1793-1993, Toronto: Dundurn Press, 1992.*
[4] *"Span plan detailed: Bridge opens then…" London Free Press, September 14, 1973.*

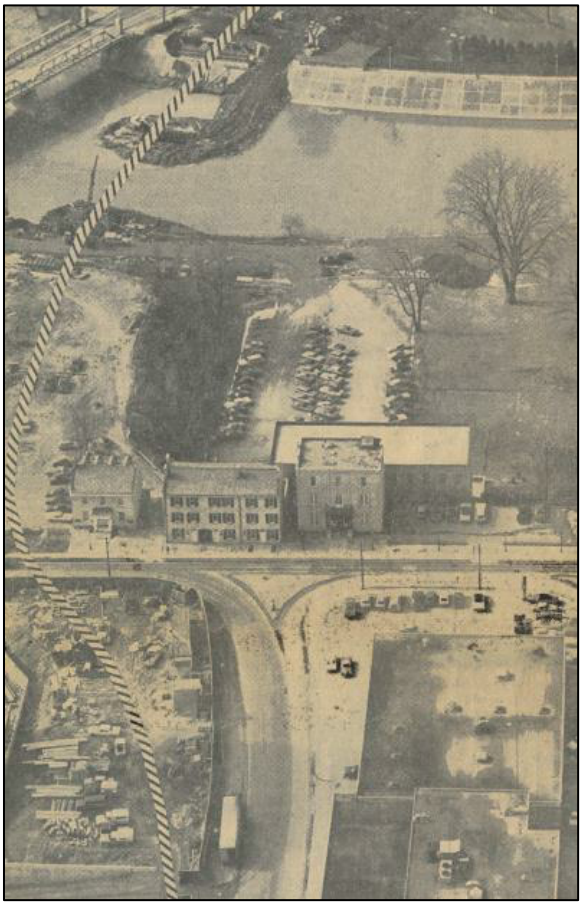

Image 9: View looking west showing realignment of Queens Avenue and construction of The Queen's Bridge as shown in the London Free Press, June 2, 1973

Image 10: View west of the newly opened Queen's Bridge as shown in the London Free Press, September 14, 1973

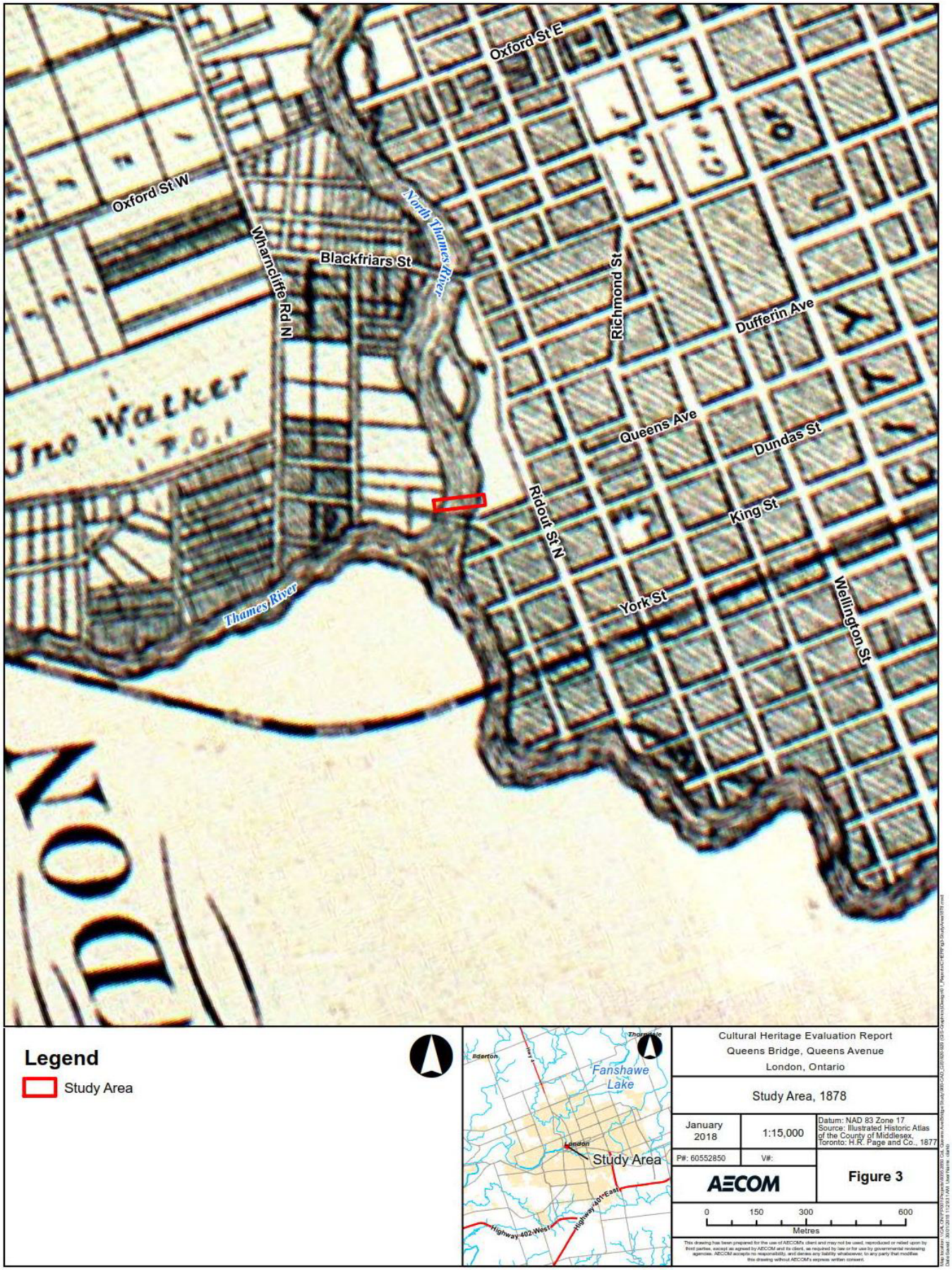

Figure 3: Study Area, 1878

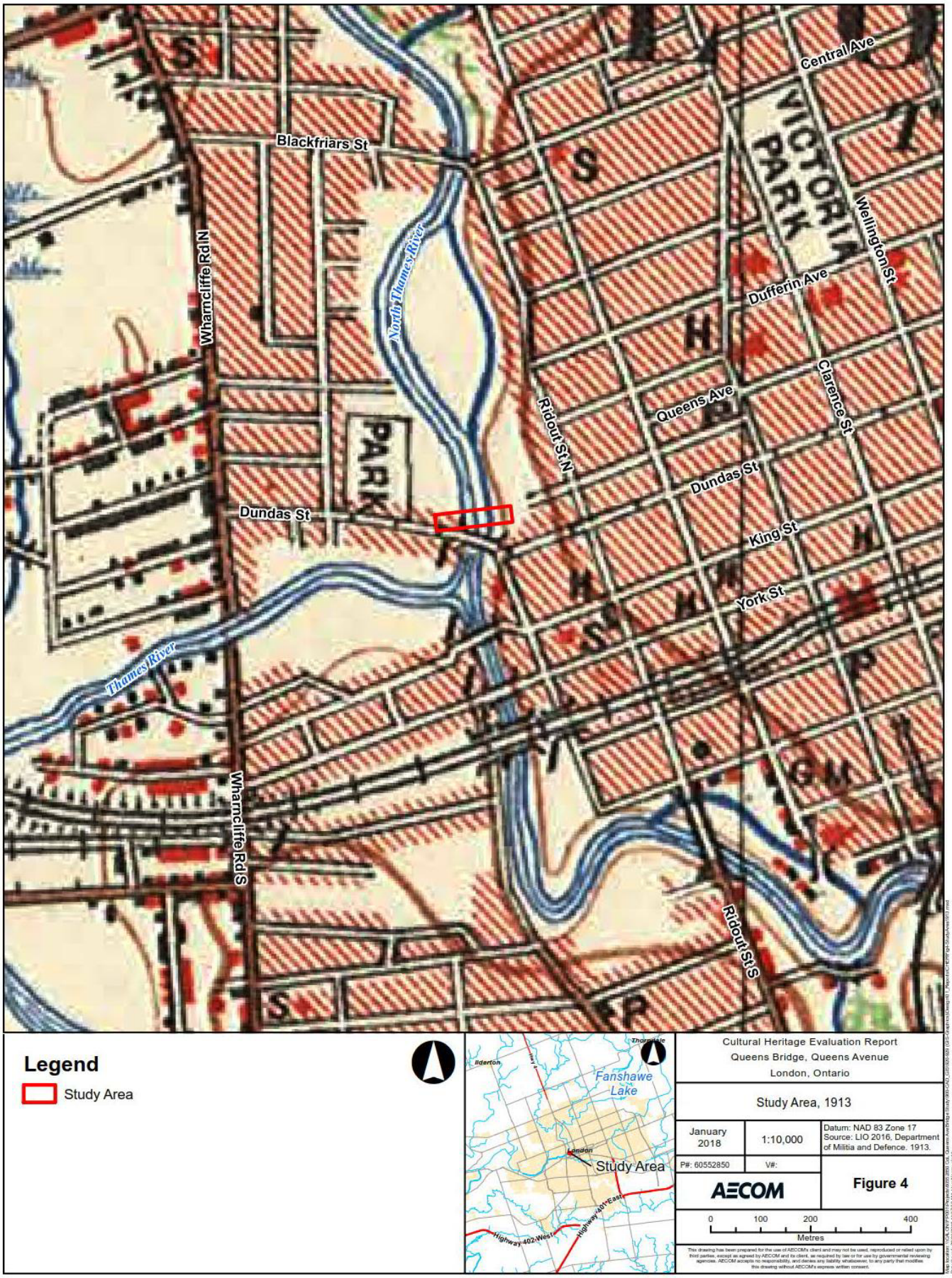

Figure 4: Study Area, 1913

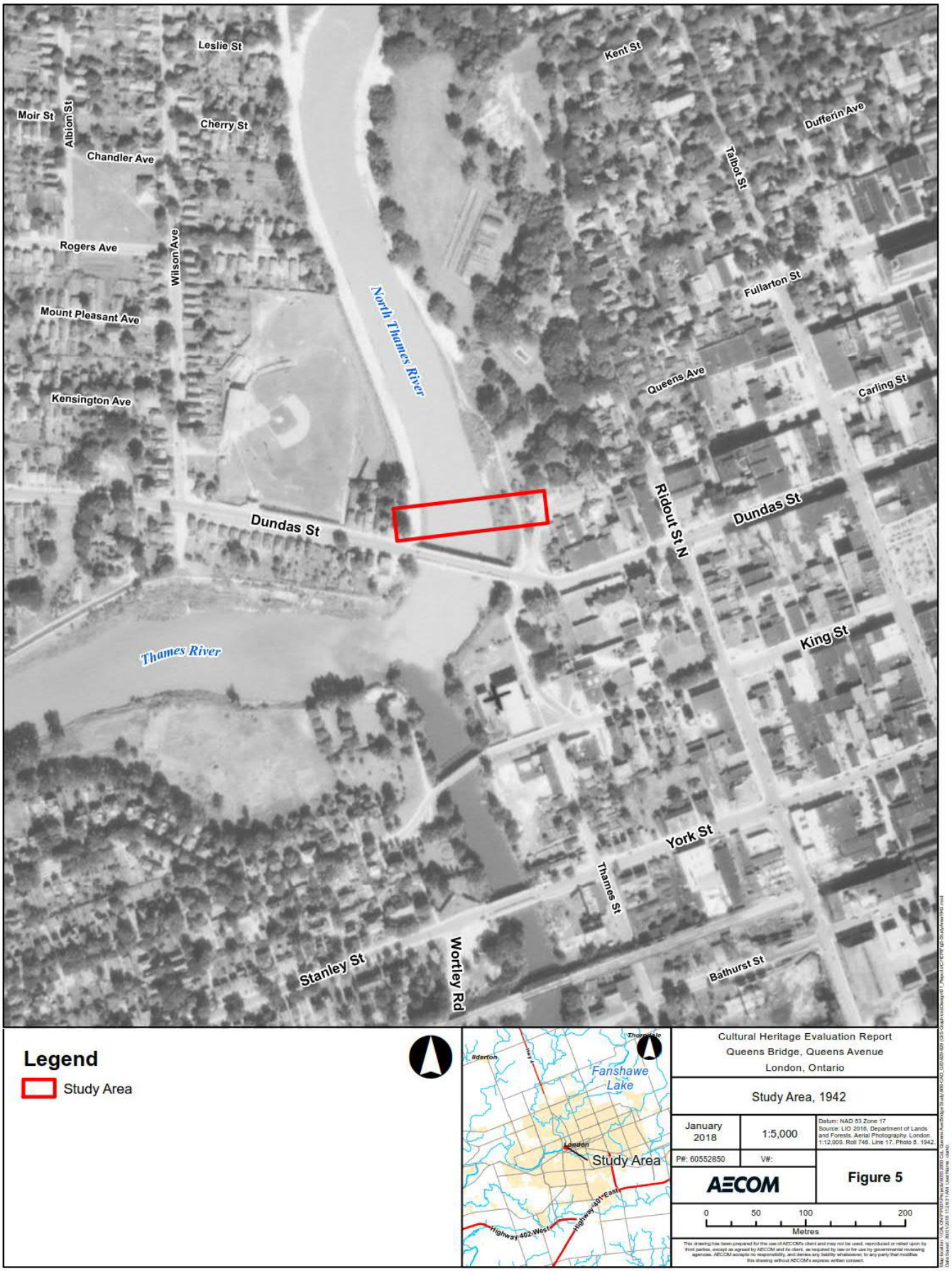

Figure 5: Study Area, 1942

Figure 6: Study Area, 1965

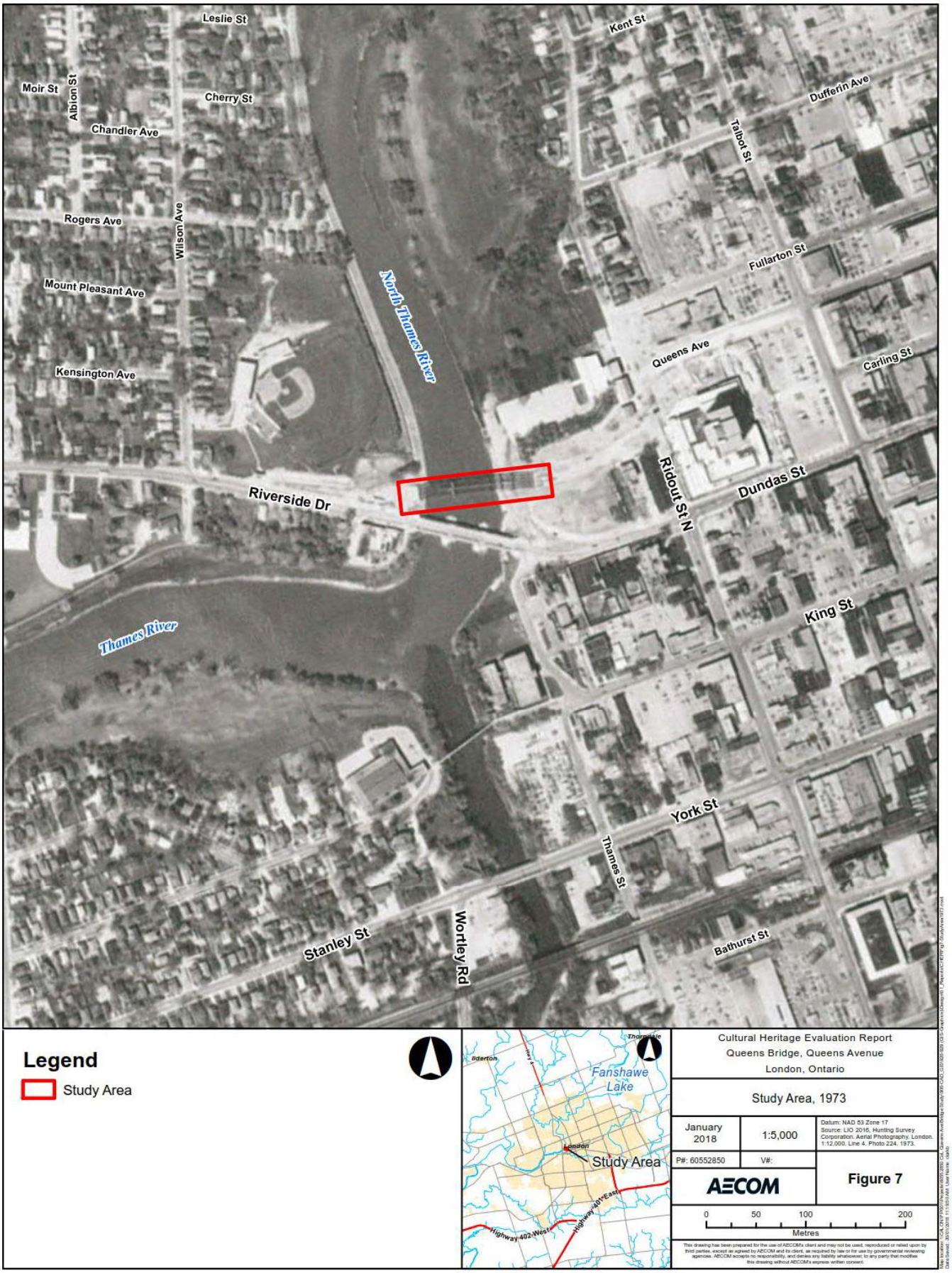

Figure 7: Study Area, 1973

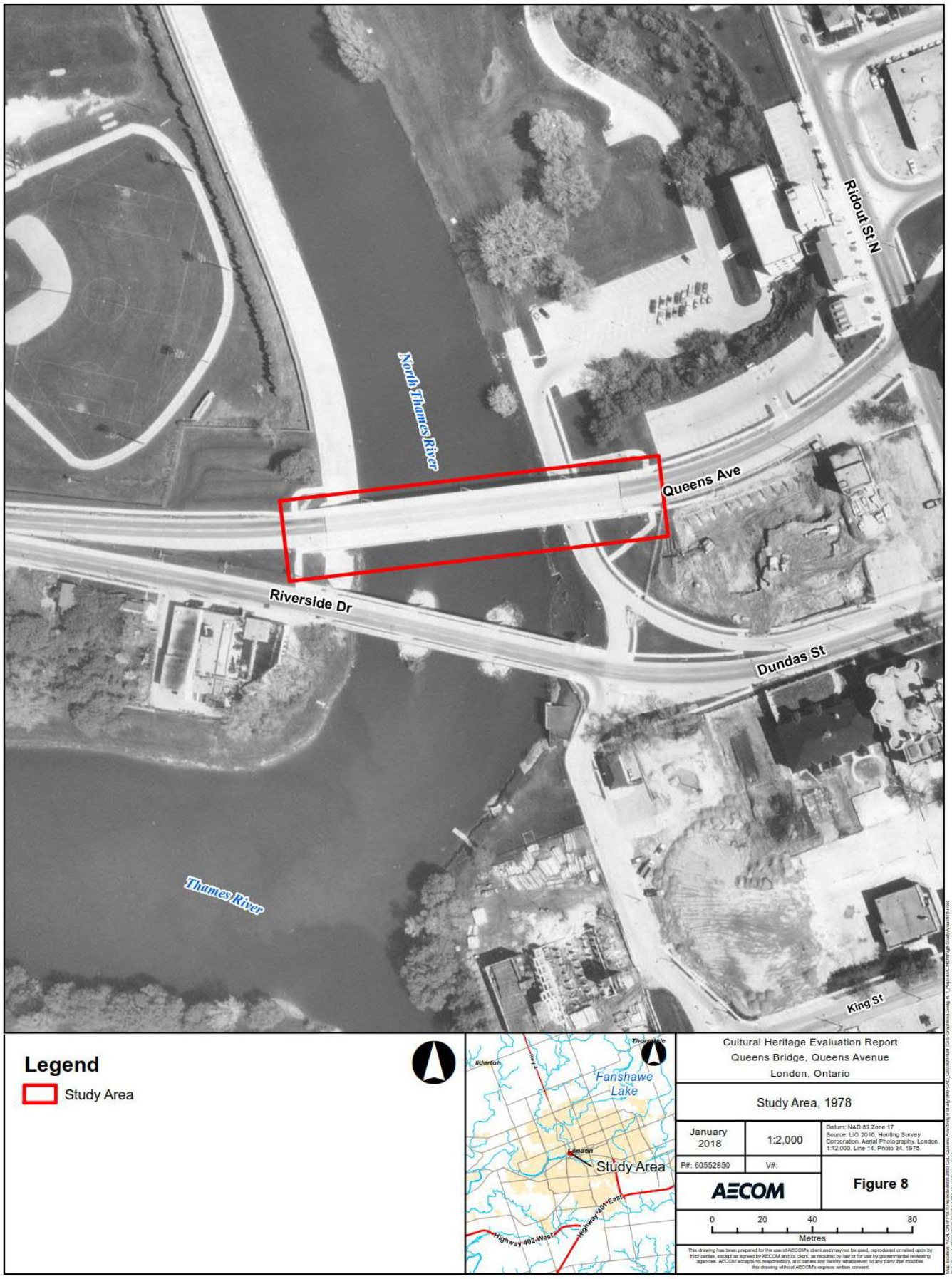

Figure 8: Study Area, 1978

4. Site Description

4.1 Context

The Queen's Bridge is a three-span steel plate girder structure, supported on concrete piers and abutments. The structure carries Queens Avenue over the North Brach of the Thames River, in London, Ontario (Image 11).

4.2 Cultural Landscape

At the site of the bridge, Queens Avenue is a two-lane road that runs in an east-west orientation, though the traffic only flows in a westbound direction. Historically a bridge crossing at this location was not built until 1973 when Queens Avenue was extended east across the river. Prior to its construction, traffic utilized the Kensington Bridge to cross the river, immediately south of the existing Queen's Bridge. The physical landscape consists of a relatively wide valley with moderately steeped valley walls. The river flows through a wide channel with shallow sloped banks on the east side of the river. The west side of the river is defined by the West London Dyke, which has recently undergone significant repairs and reconstruction (Image 12) over the last several years.

The Thames Valley Parkway (TVP) is located on the east and west banks of the river. On the east side of the river, the trail extends through Ivey Park south of the bridge and passes under the bridge before continuing alongside the river through Harris Park. On the west side of the river, it is rises high above the river as part of the West London Dyke, and slopes down under the bridge, passing under Queens Avenue and Riverside Drive. Both portions of the TVP are paved and used extensively by pedestrians and cyclists. The stairway providing pedestrian access from Queens Avenue to the trail and park below was incorporated into the original design for the bridge (Images 13 and 14).

4.3 Approaches

Both approaches to the bridge are relatively level and are generally consistent with the grading of the road at the bridge. East of the bridge, the road curves north as part of its alignment with the rest of Queens Avenue. As it curves north, the grade gradually rises as well (Images 15 and 16).

4.4 Abutments and Piers

The east and west abutments are constructed of reinforced concrete and are built into the earth embankments on either side of the river. The east abutment is set far back from the river, allowing the TVP as well as Harris Park Gate/Thames Street, a service road, to pass under the bridge between the east abutment and the east pier. The slopes from the abutments to the trails and road are paved with flagstone. On the west side of the river, the west abutment is constructed directly adjacent to the TVP and has a much shorter clearance under the bridge as a result of the grade differences and the dyke system on the west side of the river. Two reinforced concrete piers are located in the in the river and adjacent to the trail on the east side of the river (Images 17 - 20).

4.5 Girders/Deck/Railings

The bridge deck is supported on six welded steel plate girders to form an overall span of 118.26 m with a width of 18.39 m. Bolted steel channels form the lateral and diagonal bracing between the girders. Various utilities can also be seen supported alongside the girders. As a result of substandard concrete that was used during the 1973 construction, an exposed latex concrete overlay was constructed in 1982, within a decade of the original construction. The railing system consists of a concrete parapet wall with a set of two tubular railings. Concrete end posts rise above the post and rails at each corner of the bridge. At the northeast corner, the endpost includes a plaque noting the date of construction along with the design and construction team for the bridge. The plaque reads:

CITY OF LONDON
QUEENS BRIDGE
ERECTED 1973
J.E. BIGELOW MAYOR
T.E THOMSON CHAIR (STREETS TRAFFFIC AND TRANSPORTAITON COMMITTEE)
A.D CARTIER MEMBER (STREETS TRAFFIC AND TRANSPORTATION COMMITTEE)
T.T. FERRIS (STREETS TRAFFIC AND TRANSPORTAITON COMMITTEE)
A. GRANT (STREETS TRAFFIC AND TRANSPORTATION COMMITTEE)
A.K. ROWNTREE CITY ENGINEER
M.M. DILLON CONSULTING ENGINEER
McKAY – COCKER CONST./LTD. CONTRACTOR

Plaquing new bridges within the City ceased in 1995 (Images 21 and 22).

Image 11: View showing south side of The Queen's Bridge, showing piers, welded steel girders, and the TVP trail on the east side of the river

Image 12: View showing north side of The Queen's Bridge, showing Kensington Bridge located further south (downstream) of the river

Image 13: View looking south along the TVP trail located on the east side of the bridge. Harris Park Gate is the road at left

Image 14: View looking north from the bridge, showing recently repaired West London Dyke and TVP trail. Labatt Park can be seen at left

Image 15: View looking east showing west approach of The Queen's Bridge is on the left side. The photograph shows the grassed median where the Riverside Drive diverts at Queens Avenue and Dundas Street

Image 16: Queens Avenue, showing curvature of the road at east approach to the bridge

Image 17: East abutment, showing sloping flagstone, and stairway from Queens Avenue at left

Image 18: West abutment, showing concrete revetment wall and TVP trail in the foreground

Image 19: View looking east across the river, showing piers supporting the steel girders

Image 20: View looking north from the west abutment, showing rise in grade to the TVP as part of the West London Dyke system

Image 21: Curb, parapet, and railing system located on The Queen's Bridge

Image 22: Endpost at the northeast corner of the bridge, with plaque noting date of construction

5. Evaluation

5.1 Ontario Regulation 9/06

Ontario Regulation 9/06 provides criteria for determining cultural heritage value or interest. If a property meets one or more of the following criteria it may be designated under Section 29, Part IV of the Ontario Heritage Act. The criteria for determining cultural heritage value under *Ontario Regulation 9/06* have been adopted by City of London and are outlined below:

1) The property has ***design or physical value*** because it:
- Is a rare, unique, representative or early example of a style, type, expression, material or construction method;
- Displays a high degree of craftsmanship or artistic merit; or
- Demonstrates a high degree of technical or scientific achievement.

2) The property has ***historic or associative value*** because it:
- Has direction associations with a theme, event, belief, person, activity, organization, or institution that is significant to a community;
- Yields, or has the potential to yield information that contributes to an understanding of a community or culture; or
- Demonstrates or reflects the work or ideas of an architect, artist, builder, designer, or theorist who is significant to a community.

3) The property has ***contextual value*** because it:
- Is important in defining, maintaining, or supporting the character of an area;
- Is physically, functionally, visually, or historically linked to its surroundings; or
- Is a landmark.

The application of the criteria for the evaluation of The Queen's Bridge is provided below in Table 1.

Table 1: Ontario Regulation 9/06 Evaluation for The Queen's Bridge

Criteria	Meets Criteria (Yes/No)	Rationale
1) The property has *design or physical value* because it:		
i) Is a rare, unique, representative or early example of a style, type, expression, material or construction method.	No	The Queen's Bridge is a three-span steel plate girder structure on concrete piers and abutments. It is of common 20th century bridge design and construction.
ii) Displays a high degree of craftsmanship or artistic merit.	No	The Queen's Bridge is a three-span steel plate girder structure on concrete piers and abutments. The bridge does not display a high degree of craftsmanship or artistic merit.
iii) Demonstrates a high degree of technical or scientific achievement.	No	The Queen's Bridge is a common bridge form and design and does not demonstrate a high degree of technical or scientific achievement.

2) The property has *historic value or associate value* because it:		
i) Has direct associations with a theme, event, belief, person, activity, organization, or institution that is significant to a community.	No	The Queen's Bridge was constructed as a part of the extension of Queens Avenue west from Talbot Street to Ridout Street North, and then further west across the Thames River in the 1970s. Although the construction of the bridge and the reorganization of the road network at this location played a key role in altering the traffic patterns in and out of the downtown core, the realignment and reconfiguration of this traffic pattern is not considered to be of historic or associative value in way that exhibits significant cultural heritage value or interest. With regards to the naming of The Queen's Bridge, it is assumed that based on the 1973 recommendation from a city committee to officially name the bridge "The Queen's Bridge" as well as the June 1973 Royal visit to London, the bridge was likely named in honour of Queen Elizabeth II. Although the naming of the crossing is associated with the Queen's visit to London, at no point in the tour of London did the Queen visit the bridge, (under construction at the time). Rather, the naming was suggestion following the completion of the visit and as a result, the Queen's association with the naming of this bridge is not considered to exhibit significant cultural heritage value or interest.
ii) Yields, or has the potential to yield information that contributes to an understanding of a community or culture.	No	The Queen's Bridge does not yield or have the potential to yield information that contributes to an understanding of a community or culture.
iii) Demonstrates or reflects the work or ideas of an architect, artist, builder, designer, or theorist who is significant to a community.	No	The Queen's Bridge was designed by M.M. Dillon Limited, a consulting engineering firm. Although Dillon has been involved as a consulting engineering firm for many projects within London, the firm is not considered as a prolific designer or builder in this report. The bridge is a relatively common design of a steel plate girder structure and does not reflect the work of a significant architect, artist, builder, designer, or theorist.
3) The property has *contextual value* because it:		
i) Is important in defining, maintaining or supporting the character of an area.	No	The Queen's Bridge carries Queens Avenue over the Thames River and the TVP on both sides of the river. In this way, it plays a role in defining the landscape of the TVP and acts as a gateway between the Downtown London HCD and the Blackfriars-Petersville HCD. In addition, the construction of The Queen's Bridge played a role in transforming the transportation networks in and out of the downtown

		core, however, the bridge itself does not play a significant role in defining, maintaining, or supporting a particular character of the area that exhibits cultural heritage value or interest.
ii) Is physically, functionally, visually or historically linked to its surroundings.	No	The Queen's Bridge is a key crossing of the Thames River that was built to extend Queens Avenue westwards over the Thames River. However, the bridge itself is not physically, functionally, visually, or historically linked to its surroundings in manner that meets the criteria.
iii) Is a landmark.	No	The Queen's Bridge is not considered to be a landmark.

5.2 Review of Heritage Registers and Additional Information

As a part of the evaluation undertaken for this CHER, AECOM reviewed municipal, provincial, and federal heritage registers and inventories including:

- *City of London, Inventory of Heritage Resources (2006);*
- *Ontario Heritage Trust's* online inventory of buildings, museums, and easement properties*;*
- *Canadian Register of Historic Places; and*
- *Federal Heritage Designations.*

The Queen's Bridge does not appear on any of the above registers or inventories. However, the bridge provides a link between two of the City's Heritage Conservation Districts (HCD). The Blackfriars-Peterville HCD is located immediately west of the river, while the Downtown HCD is located east of the river. As a result, The Queen's Bridge acts as a gateway leaving the Downtown HCD and entering the Blackfriars-Petersville HCD. Although noted in both HCD studies, The Queen's Bridge is not included within either HCD.

Lastly, the Thames River is a designated river as part of the Canadian Heritage Rivers System (CHRS). The CHRS is a conservation program that promotes, protects, and enhances Canada's river heritage and ensure that Canada's leading rivers are sustainably managed. As part of the designation application and the on-going monitoring and reporting for the Thames River, a series of publications have been developed to preserve and enhance the natural and cultural heritage of the river. The Queen's Bridge is one is the many bridges in London that crosses the Canadian Heritage River.

6. Recommendations

6.1 Cultural Heritage Value or Interest and EA Process

At the time of the preparation, there is no specific proposed undertaking, however, the design report being undertaken concurrently is anticipated to provide recommendations for rehabilitation activities for the bridge. Nonetheless, when evaluated according to the criteria outlined in *Ontario Regulation 9/06, Criteria for Determining Cultural Heritage Value or Interest*, the bridge did not meet any of the criteria. As a result, The Queen's Bridge does not contain cultural heritage value and thus a Statement of Cultural Heritage Value and a list of Heritage Attributes were not developed.

As a result of the conclusion of the *Ontario Regulation 9/06* evaluation undertaken for The Queen's Bridge, the bridge was determined to not have cultural heritage value or interest. Therefore, based on the Municipal Engineer's Association's *Municipal Heritage Bridges Cultural, Heritage, and Archaeological Resources Assessment Checklist* (Revised 2014), a Schedule A or A+ Municipal Class Environmental Assessment should be undertaken. It should be noted that this conclusion is based solely on the outcome of the heritage evaluation for the structure, and does not take into account additional considerations included in the checklist such as Archaeological Assessments, or further environmental, engineering, or financial considerations that would determine the schedule of a Municipal Class EA.

Lastly, if the bridge is to be replaced in the future, the plaque on the endpost should be salvaged and stored with the City, pending a potential reuse or integration into a newer structure, or to be stored with an appropriate museum or archive as a remnant of public infrastructure.

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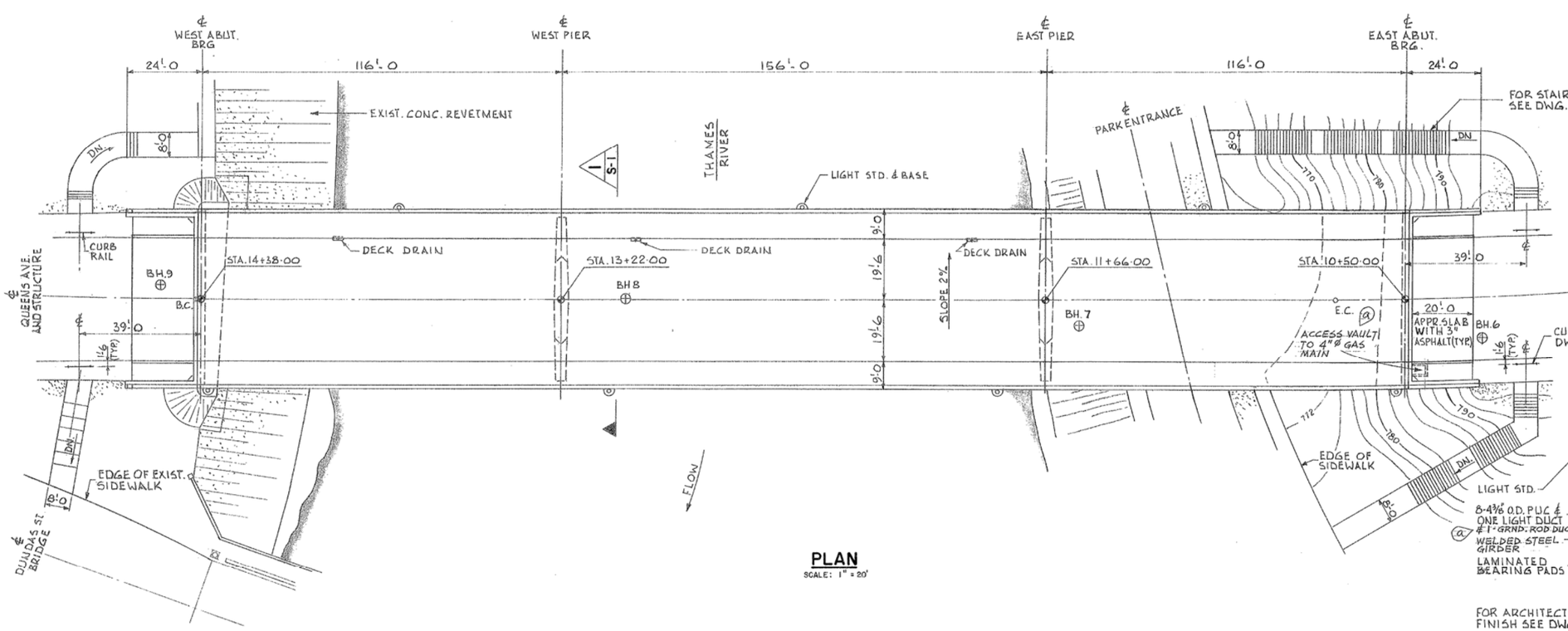
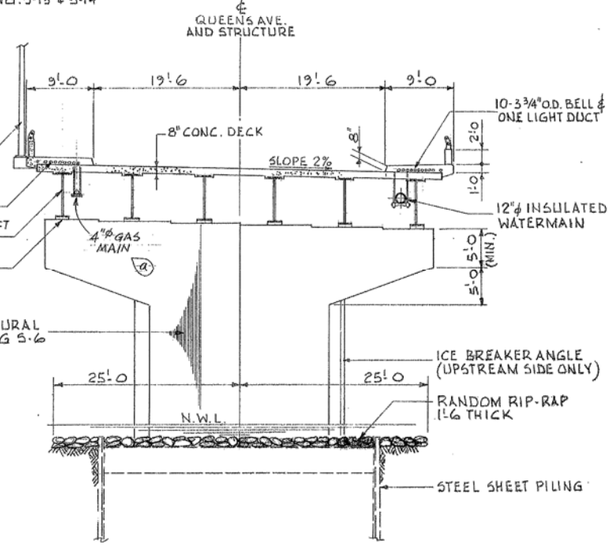
aecom.com

Appendix A

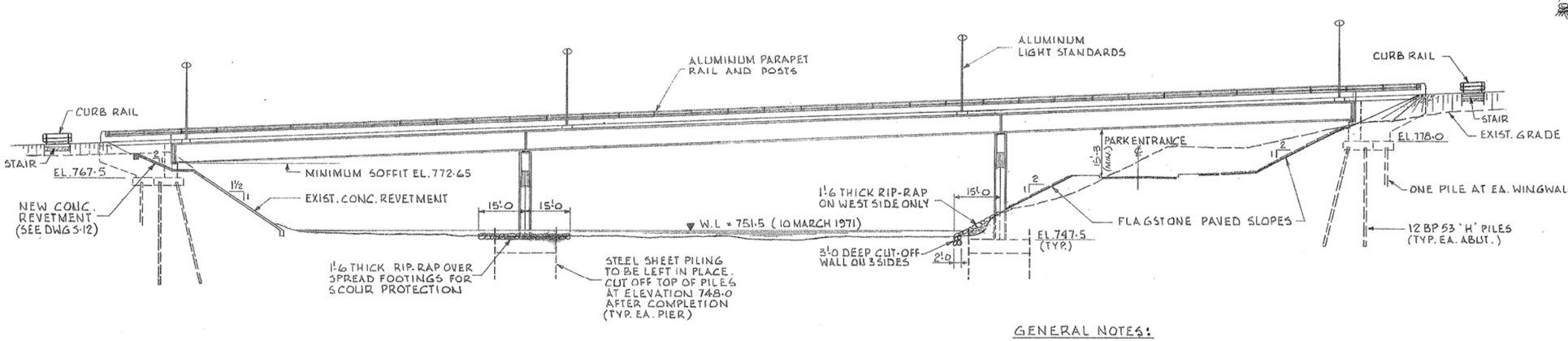
General Arrangement Drawing
City of London
Queens Ave Extension
M.M. Dillon Limited
London, Ontario



PLAN
SCALE: 1" = 20'



SECTION 1 S-1
SCALE: 1"= 10'-0"



ELEVATION
SCALE: 1" = 20'

AS BUILT

GENERAL NOTES:

- DESIGN LIVE LOAD HS 20-44
- CONCRETE STRENGTH AT 28 DAYS:
  - DECK, SIDEWALKS, PARAPET WALLS & PIERS — 4000 PSI
  - FOOTINGS, ABUTMENTS, APPROACH SLABS & SLOPE PAVING — 3000 PSI
  - WORKING SLAB — 2000 PSI
- CLEAR COVER TO REINFORCEMENT:
  - FOOTINGS & ABUTMENTS — 3"
  - PIERS (SEE NOTE DWG. S-6) — 3"
  - TOP OF DECK, SIDEWALKS & APPROACH SLABS — 2"
  - PARAPET WALLS — 1½"
  - UNDERSIDE OF DECK SLAB — 1"
- ALL EXPOSED CONCRETE EDGES TO HAVE ¾" CHAMFER UNLESS SHOWN OTHERWISE
- SEE DWG. S-7 FOR STRUCTURAL STEEL NOTES
- SEE DWG. E-1 FOR EMBEDDED ELECTRICAL WORK

original drawing 6"

NO.	REVISIONS	DATE	BY
a	AS BUILT	NOV./73	GB

NO.	FOR	DATE
	PRINT RECORD	

REGISTERED PROFESSIONAL ENGINEER G. KNIGHTS PROVINCE OF ONTARIO

M. M. DILLON LIMITED
LONDON • TORONTO • OTTAWA • WINNIPEG • SUDBURY • WINDSOR
CONSULTING ENGINEERS
PROJECT OFFICE. LONDON

QUEENS AVE. EXTENSION

GENERAL ARRANGEMENT - STRUCTURE

DESIGN	G. K.	THE CORPORATION OF THE CITY OF LONDON	PROJECT NO. 6525-02
DRAWN	J. B.		SHEET NO. S-1
CHECKED	G. K.		
APPROVED		DATE JAN. 1972	SCALE AS NOTED

Bruning—RAP—200—10-67