

City of London

Cultural Heritage Evaluation Report Wenige Expressway Bridge (4-BR-14) Highbury Avenue over the Thames River

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Distribution List

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2	1	City of London
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Revision History

Revision #	Date	Revised By:	Revision Description
0	November 21, 2017	Michael Greguol	Draft Cultural Heritage Evaluation Report
1	January 16, 2018	Michael Greguol	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 for the Wenige Expressway Bridge (Structure No. 4-BR-14) on Highbury Avenue over the South 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 August 29, 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 Wenige Expressway Bridge does not contain cultural heritage value and thus a Statement of Cultural Heritage Value and a list of Heritage Attributes were not developed. 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 for the Wenige Expressway Bridge (Structure No. 4-BR-14) on Highbury Avenue over the South 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.

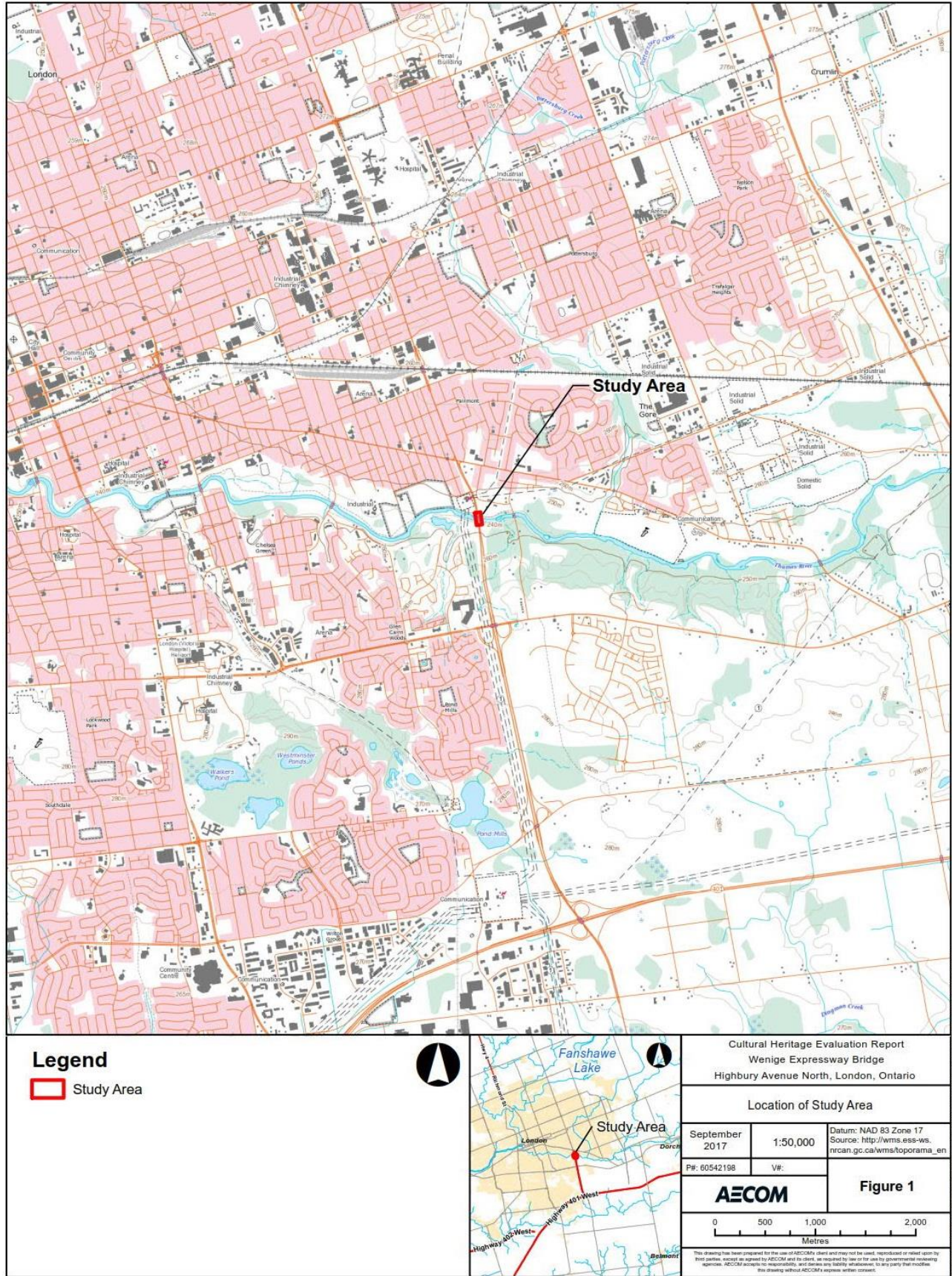


Figure 1: Location of Study Area

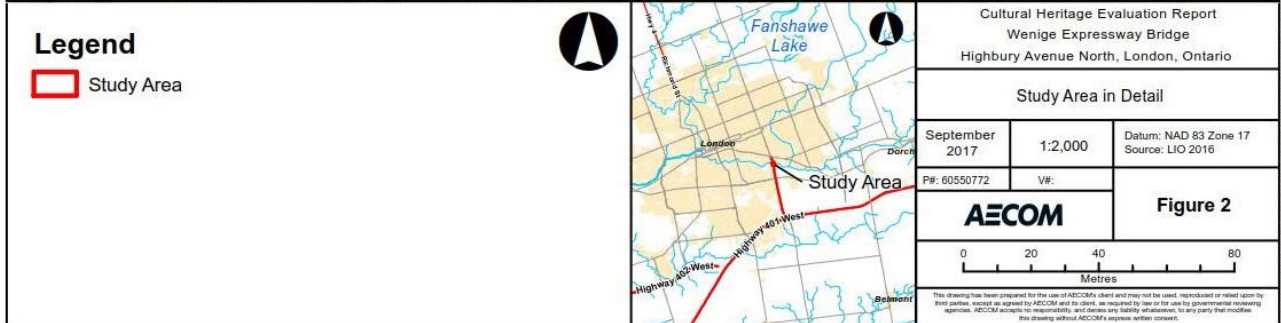


Figure 2: Study Area in Detail

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)
 - *Guidelines for Preparing the Cultural Heritage Resource Component of Environmental Assessments* (MCC-MOE 1992)
 - *Guidelines on the Man-Made Heritage Component of Environmental Assessments* (MCR-MOE 1981)
- *Planning Act* (R.S.O. 1990, Chapter P.13)
 - *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
 - *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 Wenige Expressway Bridge is located within the Mount Elgin Ridges physiographic region, which is located between the Thames Valley and Norfolk sand plain. The region is a succession of ridges and valleys that generally extends from north and east of Woodstock to near St. Thomas. The subject bridge is located along the northern edge of the physiographic region. At the site of the bridge, the landscape consists of a relatively wide valley with moderately steep valley walls. Formal and informal recreational trails are located on the north and south banks of the river and pass under the bridge (Photograph 1).

The bridge structure carries Highbury Avenue over the South 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 approximately 5 km west of the bridge. At the site of the bridge, the river flows through a wide channel with moderately sloped banks lined with large concrete blocks to the north. A concrete pier is located in the centre of the river to support the bridge. At the time of the field investigation water levels in the river were low east of the pier (Photographs 2 and 3).



Photograph 1: View to Wenige Expressway Bridge in its setting over the South Branch of the Thames River



Photograph 2: View looking upstream showing the Thames River and vegetation along the banks, and transmission lines crossing the river



Photograph 3: View looking upstream from under the bridge showing centre pier at right and north banks at left

3.2 Historic Context

3.2.1 Local Historic Context

Some accounts suggest that prior to the Crown surveys in the area; Commissioner's Road was based on an Indigenous trail that was formalized during the British colonization of the area.¹ Evidently, John Graves Simcoe followed the trail through the area. Historically the bridge was located over the boundary between London Township and Westminster Township in Middlesex County. The trail was later widened and improved by a government-appointed road commission. 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 along Ridout Street and the Talbot Block. Settlement in London began to expand rapidly after the construction of the 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 river.

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 and Labatt's Brewery and the London Cigar Industry. London was incorporated as a Town in 1840 and by 1855 the population had leapt to 10,000 at which time it officially became a city. In the same year, the London officially became a City.

The former London Township survey system laid out by Burwell created a grid pattern of eight 100-acre lot allowances. 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. Highbury Avenue would have been laid out as one of the early concession roads; however it originally terminated at the Thames River which formed the boundary between Westminster and London Townships.

The former Township of Westminster was one of the early townships to be settled within Middlesex County. The Township was first surveyed by Mahlon Burwell and land patents were issued by the Crown for lands within Westminster Township as early as 1812. The lots were divided by the double front system. The earliest roads within Westminster Township were Commissioners and Longwoods Roads, to the south of the study area, established during the War of 1812; however, the majority of the township did not have an early road system and few passable roads.

¹ Although not formally covered within this report, the Thames River and the project area has been the site of extensive Indigenous history prior to European contact in North America and in contemporary London specifically. Pre-contact histories of First Nations within the project areas are typically more thoroughly covered in Archaeological Assessments. For the purposes of this CHER it is assumed that this historic information will be addressed in any Archaeological Assessments that may be undertaken for the area as part of future studies.

By the late-nineteenth century, the areas surrounding the future bridge crossing on Highbury Avenue – both north and south of the river – are depicted as relatively undeveloped. The *Illustrated Historic Atlas* map for Westminster Township does not show structures north of the river in 1877; however, the lots east and west of what is now Highbury Avenue were subdivided suggesting that the area on the outskirts of the City were just beginning to develop. South of the river, the lots appear to not have been subdivided yet and were likely still agricultural or wooded in use (Figure 3 and Figure 4). By 1913, the area north of the bridge was starting to be developed, specifically along Hamilton Road, while the area south of the river was undeveloped. Highbury Avenue still terminated at the river. A side road – what is now Norlan Avenue – connected Highbury Avenue with Meadowlily Road to the east where a truss bridge crossed the river (Figure 5).

By the middle of the 20th century, growth from the City of London had extended significantly to the east where the areas surrounding the subject bridge was mostly developed. North of the river, subdivisions were developed along the north and south sides of Hamilton Road, and the Highbury Transformer Station had been constructed with transmission corridors crossing the river. South of the river, isolated structures were present along Meadowlily Road and Commissioners Road respectively. However, Highbury Avenue had still yet to be extended across the river and thus little development had taken place within the study area south of the river (Figure 6). Aerial photography from 1955 confirms the development depicted on the historic topographic mapping in the early and mid-20th century (Figure 7). The road would not be extended across the river to Highway 401 until the 1960s. In addition, the area surrounding the bridge was not officially annexed with the City of London until 1961.

3.2.2 Park Farm Property

The property located at 120 Meadowlily Road South, approximately 600m to the east, otherwise known as Park Farm is an important cultural heritage landscapes within the City of London. The residential building on the property was constructed for William Bell, an English farmer who arrived in Canada in the area in the 1850s. In 1907, the property came into the ownership of Maxwell David Fraser, and eventually turned into a prosperous dairy farm by his son, Harrison Fraser, a prominent barrister and solicitor in the family firm of Fraser and Fraser. The Fraser family promoted the use of their property by the citizens of London for recreational purposes because of its natural beauty along the river. The property was eventually willed to the City of London to be used continuously as a public recreation space.²

Today, the property is now part of Meadowlily Park and was designated under Part IV of the Ontario Heritage Act in 1995.³ The property is composed of a residence, shed, and grounds set on a wooded hill with a panoramic view of the surrounding natural areas.

3.2.3 Stevenson Camp/Thames Talbot Land Trust

Prior to the extension of Highbury Avenue south of the Thames River, the surrounding property was once the site of the Stevenson Camp, a property used by the London Children's Aid Society (CAS). In 1947, Dr. W.J. Stevenson bequeathed 300 acres to the London CAS in memory of high brother Dr. Hugh A. Stevenson, in order to established a playground/camp on the property. By 1949, a partnership between the London CAS and the London Kinsmen Club commenced work on the camp which consisted of 100 acres for facilities, and 200 acres for hiking and nature study. According to Stevenson's will, the camp was to be used "for the benefit of underprivileged children who would otherwise not experience a summer holiday out of the city." In the 1950s, the camp operated for a short period on the property and its facilities grew to include six sleeping cabins, a main lodge, a craft house, a

² Park Farm, 120 Meadowlily Road South, London, Ontario, <http://www.historicplaces.ca/en/rep-reg/place-lieu.aspx?id=11881> (accessed December 2017).

³ City of London, By-law L.S.P.-3253-58).

director's cabin, a washroom/shower facility, and a 20 x 40 foot pool. However, by 1955 the Stevenson Camp had moved to Dorchester, and by the 1960s the Highbury Avenue Extension cut directly through the property.

In 2002, a portion of the property was donated by Carol and Rick Richardson to the citizens of London. The 59 hectares of land is now known as the Meadowlily Nature Preserve and is managed by the Thames Talbot Land Trust, a non-profit organization dedicated to protecting environmentally significant lands in Southwestern Ontario.

3.2.4 Highbury Avenue/Highway 126/Wenige Expressway

Highbury Avenue, north of the river was laid out as a part of the London Township survey. The road remained an early north-south concession road east of the City well into the 20th century. As noted above, the area did not see significant development until the mid-20th century when the City's growth stretched east, most notably along Hamilton Road within the vicinity of the subject river crossing. However, it wasn't until the 1950s and 1960s that plans and designs to extend Highbury Avenue across the Thames River were realized.

In 1958, a Highbury Avenue overpass was constructed to carry the road over the Canadian Pacific Railway (CPR) tracks, well north of the river. Although not directly associated with the extension of Highbury Avenue and the crossing of the Thames River, this project was noted as being a key component to the future of Highbury Avenue as a main traffic route in London. An article in the *London Free Press (Free Press)* following the completion of the overpass noted, "Opening of the new Highbury Avenue overpass completes a major step in long-range plans for making Highbury a key by-pass route in the London area. If and when plan goes through for extending Highbury southward to meet No. 401 Highway, it will be a fast through route for a large volume of traffic wishing to skirt London."⁴

Plans for the extension of Highbury Avenue were put into action beginning in the early-1960s. By October 1962, the *Free Press* published an article noting that all of the necessary properties needed for the extensions were expropriated and now vacant. It was also noted that the another overpass was being built at the Canadian National Railway (CNR) tracks and the opening was planned to coincide with the opening of the river crossing so that the extension would be complete to Highway 401 all at once. Construction took place throughout 1962 and 1963 and by December of 1963, the extension was opened.⁵

Much like the CPR overpass, the CNR overpass was also celebrated as being a key component of the extension. On December 9th, 1963 a bridge opening ceremony was held at the CNR overpass where Mayor Stronach, and John White, a MPP for London South, along with a group of CNR, City, and provincial officials cut a ribbon then proceeded to form an official motorcade that travelled the route south to Highway 401. The motorcade passed through the cloverleaf at Highway 401 to "officially" open the Highbury extension. Much of the focus on the opening of the extension was on the CNR overpass and the Highway 401 cloverleaf with a minor mention of a bridge being constructed over the Thames River as a part of the project.⁶

The naming of the Highbury extension has taken on various titles throughout its short history. Originally described publically as the Highbury extension, the naming of the extension was a subject of debate between the City of London and the Province of Ontario throughout the 1960s and 1970s. In 1963, the City Council adopted a recommendation to formally name the extension the Wenige Expressway, after the late mayor George A. Wenige, a popular London mayor throughout the first half of the 20th century. Nonetheless, the Department of Highways or DHO (currently known as the Ministry of Transportation of Ontario, MTO) rejected the name citing safety as the main reason. At the time, Highbury Avenue south to Power Street was owned by the City. However, from Power Street south across the Thames River to Highway 401 was owned by the DHO which preferred a numbered

⁴ "Traffic Artery Widened to Four Lanes," *London Free Press*, February 5, 1958.

⁵ "All Properties for Extension Now Vacated," *London Free Press*, October 29, 1962; *DHO Annual Reports*, 1962-1964.

⁶ "Highbury Overpass Opened.," *London Free Press*, December 9, 1963.

highway name, in this case Highway 126. An engineer for the Province noted that a numbered highway name would be consistent with the Province's numbering of highways and for safety would be larger on signage making it more visible from farther away.⁷

Against the Province's wishes the City ordered and erected signs designating the extensions as the Wenige Expressway in 1965. The signs were planned for each end of the extension, one at Highway 401 and the other at Hamilton Road. The *Free Press* noted that in doing so, council was defying the DHO. However, in the end the City ended up erecting the signs on a one-block stretch between Hamilton Road and Power Street (Photograph 4). Several years later in 1981, an article about place names noted that the signs were still in place between Hamilton Road and Power Street where the City recognized this 360 yard portion of the City as the Wenige Expressway, or as a City traffic officer described it, it was a "20-second expressway".⁸



Photograph 4: Photograph of the installation of the "Wenige Expressway" signs, erected in 1965, as shown in the *London Free Press*

In 1991, the Province determined that Highway 126 was a redundant provincial highway as it only served a local purpose. At that time the entire highway was decommissioned and ownership of the highway between Hamilton Road to Highway 401 was transferred to the City of London effective June 12, 1991. Signs noting "Highway 126" were eventually removed. The road is now officially known as Highbury Avenue.

⁷ "Name Expressway for Wenige," *London Free Press*, August 7, 1963; "Urge Highbury Extension Be Designated Highway 126," *London Free Press*, November 13, 1963; *London City Council Minutes*, 17th Report of the Traffic Committee, November 13, 1963.
⁸ "Highbury Becomes Wenige Expressway," *London Free Press*, December 10, 1964; "Signed Up," *London Free Press*, July 19, 1965; "City Defies Province 'Wenige' Signs Go Up," *London Free Press*, May 13, 1965; "Colorful mayor remember on '20-second' expressway." December 21, 1981.

3.2.5 *George Wenige*

George Wenige was born in Detroit in 1874 and arrived in London in 1899. Wenige started his career as a brush salesman; however, he made his name for himself in London as a bicycle business owner and trick bicycle rider. He opened a bicycle shop in London and was at one time reported to have owned the largest bicycle agency in Canada. He also entered into the world of local politics, first becoming an alderman in 1921. He ran as a mayoral candidate on 20 occasions and was successful on 9 of them, serving terms in 1923-1925, 1928, 1934-1935, 1947-1948, and 1950. He has become known as one of the most outgoing mayors in London's history as a result of his interests in people and entertainment. In addition, in his political career he commonly used city-wide referendums, and he is known for streamlining city committees, the Fire Department, providing incentive pay for good city workers, as well as for cutting costs at Victoria Hospital. He also played a role in improving the Western Fair, getting a new Canadian National Railway Station in London, and in expanding Parkwood Hospital. The Wenige Expressway was posthumously named after him.⁹

3.2.6 *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. Two well-known iron bridges, an earlier version of the current Victoria Bridge, and the well-known Blackfriar's Bridge 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. The Meadowlily Bridge and the King Street Bridge are both steel truss bridges constructed within London. Both bridges have been rehabilitated recently and are currently being used as footbridges.

At the beginning of the 20th century 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 with reinforcing steel bars. By the 1930s, concrete challenged steel as the primary bridge-building material of choice and various concrete bridge types have since been used for road bridge construction.

3.2.7 *Wenige Expressway Bridge*

As noted in the subsections above, prior to the 1960s, Highbury Avenue terminated at the Thames River. However, with the extension of Highbury Avenue south to Highway 401, the Wenige Expressway Bridge was constructed in

⁹ George A. Armstrong, *The Forest City: An Illustrated History of London, Canada*, Windsor: Windsor Publications, 1986.

order to carry the road over the Thames River. The bridge was designed internally by DHO engineers in 1960 as part of the planning for the Highbury Avenue extension. As a result, little biographical information related the bridge designers or engineers could be determined. In addition, the contractor for construction of the bridge has not been determined.

The bridge was completed in 1963, and opened as part of the Highbury Avenue extension. Based on the original design drawings, routine maintenance and rehabilitation activities have taken place since construction. The most notable rehabilitation was a recoating of all structural steel on the bridge in 1990. Aside from the installation of concrete barriers on the deck of the bridge, the structure has not changed in appearance from its original construction in 1963.

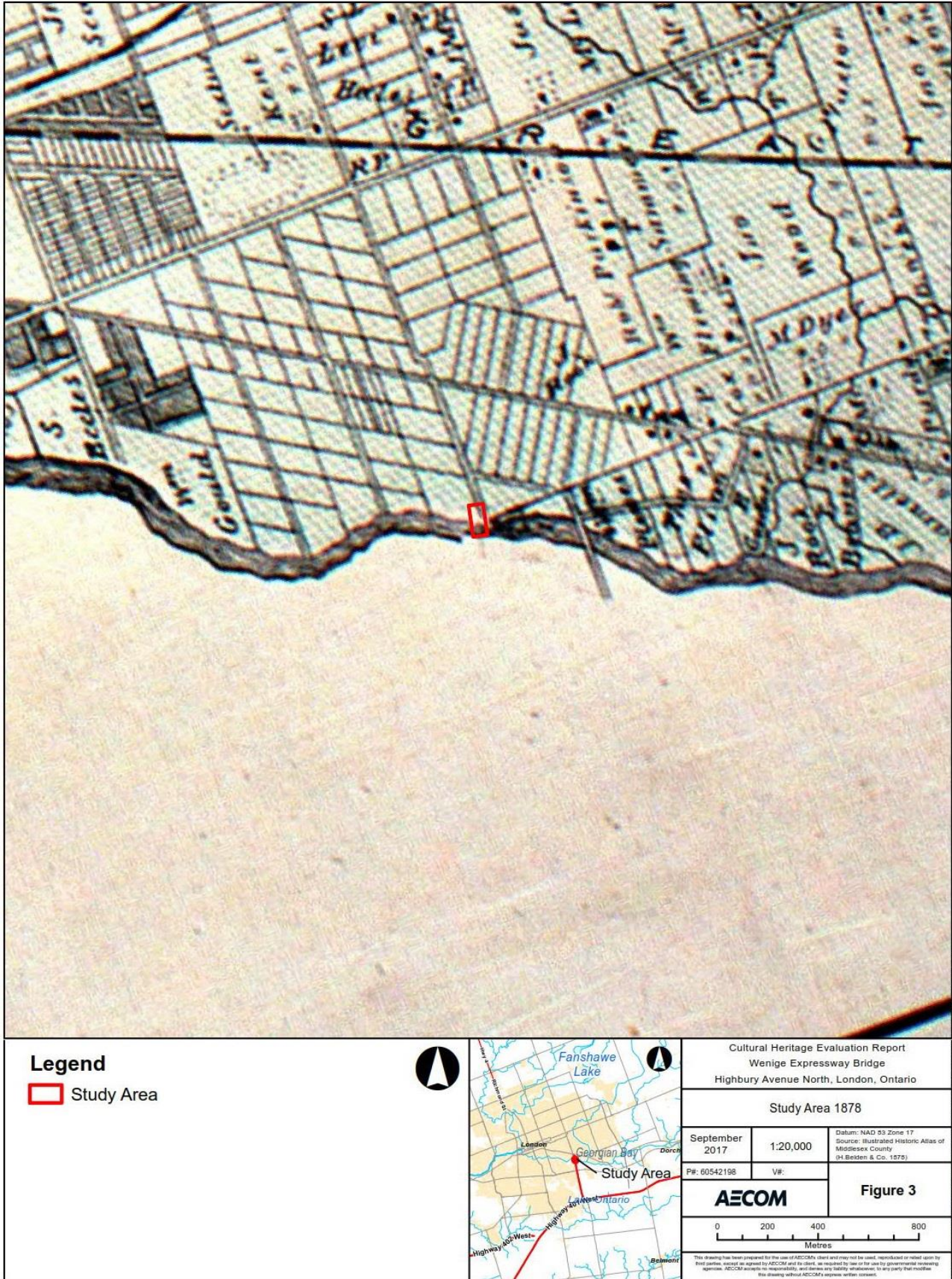


Figure 3: Study Area, 1878 (London Township)



Figure 4: Study Area, 1878 (Westminster Township)



Figure 5: Study Area, 1913

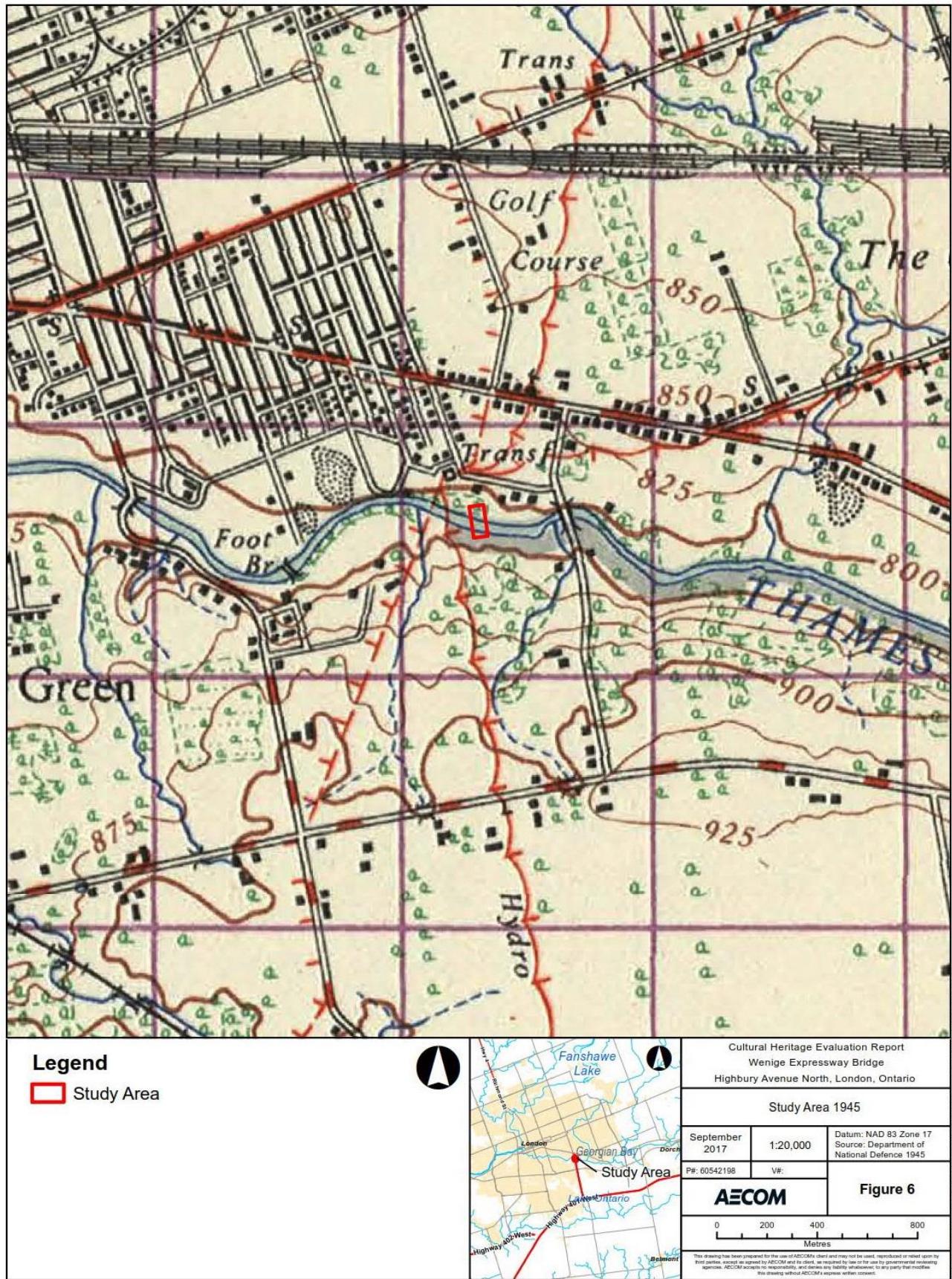


Figure 6: Study Area, 1945



Figure 7: Study Area, 1955



Figure 8: Study Area, 1965

4. Site Description

4.1 Context

The Wenige Expressway Bridge is a two-span steel plate girder structure, supported on concrete abutments and a centre concrete pier. The structure carries Highbury Avenue over the South Branch of the Thames River, in London, Ontario (Photographs 5 and 6).

4.2 Cultural Landscape

At the site of the bridge, Highbury Avenue South is a four lane freeway at the bridge, running in a north-south orientation and provides access to Highway 401 south of the bridge. Historically, a bridge crossing at this location was not built until 1963 when Highbury Avenue was extended south across the river. Prior to its construction, the closest crossing of the river was the Meadowlily Bridge, located approximately 350 m to the east, upstream of the Wenige Expressway Bridge (Photographs 7 and 8). The Vauxhaull Bridge, carrying Thompson Road/Egerton Street over the Thames is closest westerly crossing of the river, located approximately 4 km to the west.

At the bridge, the physical landscape consists of a relatively wide valley with moderately steep valley walls. The river flows through a wide channel with moderately sloped banks lined with large concrete blocks to the east. A concrete pier is located in the centre of the river to support the bridge. At the time of the field investigation water levels in the river were low east of the pier. The east and west banks of the river are lined with vegetation.

Formal and informal trails are located on north and south banks of the river. North of the river, the Thames Valley Parkway (TVP) trail passes under the bridge. The paved parkway is a pedestrian and cyclist trail network that weaves throughout the City. To the east, the trail leads to Potterburg Park and to the west it leads follows the river to the Forks and points northward. South of the river, an informal trail can be accessed from Meadowlily Road and extends through a wooded area, through an open meadow just southeast of the bridge. St. Julien Park and Shelborne Park are also located north and south of river respectively (Photographs 9 – 12).

4.3 Approaches

Both approaches to the bridge are relatively level and are generally consistent with the grading of the road at the bridge. North of the bridge, the road curves slightly and a slight incline in the road is evident as the road approaches the bridge, however at the bridge structure the approach is generally flat (Photograph 13).

4.4 Abutments and Piers

The north and south abutments are constructed of cast-in-place concrete and are built into the tall earth embankments to raise the bridge to the grade level of Highbury Avenue. The TVP is located immediately adjacent to the north abutment, and remnants of paint layers can be seen on the smooth face of the concrete. Drainage holes are also visible in the abutment wall. Large concrete wingwalls are situated on the east and west sides of the abutment where the trail meets the steep embankment. The south abutment is constructed closer to the river bank, however, an informal trail also passes under the bridge, immediately adjacent to the abutment. A concrete pier is

also located in the centre of the river. The ends of the pier are rounded to deflect the flow of the river, however, the pier appears to still catch large debris such as logs (Photographs 14 – 18).

4.5 Girders/Deck/Railings

The bridge deck is supported on six welded steel plate girders to form an overall span of 76.2 m with a structure width of 18.39 m. Bolted steel channels form the lateral and diagonal bracing between the girders. Bolted gusset plates can also be seen on each girder. Transverse diaphragms are located at each abutment and at the pier. The original railing system on the bridge consists of an open steel design of open rectangular patterns, with steel posts located between the panels. The original railings are one of at least three sets of standard open railing systems that are located on or over Highbury Avenue South. However, temporary concrete barriers have since been installed on the deck for traffic safety purposes, making the railings visible only from the trails below the bridge. The end posts on the bridge consist of rectangular concrete panels with chamfered edges and horizontal grooves, a common stylistic characteristic found on DHO bridges constructed in the early and mid-20th century (Photographs 19 – 23).



Photograph 5: View showing west side of the Wenige Expressway Bridge



Photograph 6: View showing east side of the bridge and its setting above the Thames River



Photograph 7: Approach to Meadowlily Bridge, adjacent steel truss bridge located upstream



Photograph 8: View looking downstream from the Meadowlily Bridge, showing Wenige Expressway Bridge in the distance



Photograph 9: View looking east from the bridge showing Thames Valley Parkway



Photograph 10: View looking east towards bridge from Thames Valley Parkway



Photograph 11: View looking south from Highbury Avenue showing meadow and informal trail at left



Photograph 12: View looking west showing informal trail that approaches on the south side of the river as it approaches the bridge



Photograph 13: View south of the bridge showing curve of Highbury Avenue as it approaches the bridge



Photograph 14: View showing north abutment



Photograph 15: View showing north abutment and proximity of Thames Valley Parkway



Photograph 16: View from the pier showing south abutment



Photograph 17: View showing south abutment and earthen embankment



Photograph 18: View showing east side of the centre pier



Photograph 19: View from pier showing welded steel plate girders



Photograph 20: View showing welded steel plate girders, cross and lateral bracing and bolted gusset plates



Photograph 21: View showing deck with asphalt wearing surface, concrete curbs, as well as temporary concrete barriers



Photograph 22: Concrete end post with horizontal grooves, common for early and mid-20th century bridges



Photograph 23: Steel railing systems, not visible from roadway

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 Wenige Expressway Bridge is provided below in Table .

Table 1: Ontario Regulation 9/06 Evaluation for the Wenige Expressway Bridge

Criteria	Meets Criteria (Yes/No)	Rationale
1) The property has <i>design or physical value</i> because it:		
i) Is a rare, unique, representative or early example of a style, type, expression, material or construction method.	No	The Wenige Expressway Bridge is a two-span steel plate girder structure on concrete abutment. It is of common 20 th century bridge design and construction. The standard railing systems were and still are typically used on DHO/MTO bridges, however, they are becoming increasingly rare. Within London, there are at least three bridges with similar open railing systems along Highbury Avenue South. Nonetheless, the bridge is not a rare, unique, or representative example of a style, type, expression, material, or

		construction method.
ii) Displays a high degree of craftsmanship or artistic merit.	No	The Wenige Expressway Bridge is a two-span steel plate girder structure on concrete abutment. 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 Wenige Expressway Bridge is a common bridge form and design and does not demonstrate a high degree of technical or scientific achievement.
2) The property has <i>historic value</i> or <i>associate value</i> because it:		
i) Has direct associations with a theme, event, belief, person, activity, organization, or institution that is significant to a community.	No	The Wenige Expressway Bridge was constructed as a part of the Highbury Avenue extension in the 1960s. Although constructed as a part of the extension undertaken by the City and the Province, the bridge does not have historic or associative value as a result of its role in the extension. In addition, the Wenige Expressway and therefore the subject bridge were named posthumously for George Wenige, former mayor of London. Although named after the former mayor, the association with Wenige is not enough to result in significant cultural heritage value.
ii) Yields, or has the potential to yield information that contributes to an understanding of a community or culture.	No	The Wenige Expressway 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 Wenige Expressway Bridge was designed internally at the DHO and is a relatively common design of a steel plate girder structure.
3) The property has <i>contextual value</i> because it:		
i) Is important in defining, maintaining or supporting the character of an area.	No	The Wenige Expressway Bridge carries Highbury Avenue over the Thames River and the TVP. In this way, it plays a role in defining the landscape of the TVP, however, the crossing of the river at this location is not a significant contribution in defining, maintain, or supporting a particular character of an area.
ii) Is physically, functionally, visually or historically linked to its surroundings.	No	The Wenige Expressway Bridge is a key crossing of the Thames River that was built to extend Highbury Avenue south to Highway 401. However, the bridge itself is not physically, functionally, visually, or historically linked to its surroundings in manner that would result in significant cultural heritage value.
iii) Is a landmark.	No	The Wenige Expressway Bridge is not considered 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.*

As a two-span steel plate girder structure, the bridge is a common form and type of bridge found not only throughout London but also across Ontario. Constructed of concrete, with steel girders and railings, the structure is a common example of mid-20th century bridge construction found in Southwestern Ontario.

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.

6. Recommendations

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 Wenige Expressway Bridge does not contain cultural heritage value and thus a Statement of Cultural Heritage Value and a list of Heritage Attributes were not developed. No further reporting related to cultural heritage is recommended for this structure.

7. Bibliography

- Armstrong, Frederick H. *The Forest City: An Illustrated History of London, Canada*. Windsor. Windsor Publications, Ltd. 1986.
- Bremner, Arnold. *City of London, Ontario Canada: The Pioneer Period and the London of Today*. London: London Printing and Lithographing Company Ltd. 1900.
- Dean, W.G. *Economic Atlas of Ontario*. Toronto: University of Toronto Press, 1969.
- Department of Lands and Forests. *Aerial Photography*. London. 1:15,700. 4244. 85. 1955.
- Illustrated Historical Atlas of the County of Middlesex*. Toronto: H.R. Page and Co., 1878.
- London, City of. *City of London Inventory of Heritage Resources*. The London Advisory Committee on Heritage. Department of Planning and Development. 2006.
- London Free Press*. 1950-1981.
- National Topographic Series. 40 I/14. St. Thomas. 1913.
- National Topographic Series. 40 I/14. St. Thomas. 1945.
- Parks Canada. Canadian Register of Historic Places. www.historicplaces.ca (accessed October 2017).

