APPENDIX M

Cultural Heritage Evaluation Report – Eastern Avenue Subway
Distribution List

<table>
<thead>
<tr>
<th># of Hard Copies</th>
<th>Revised By</th>
<th>Association / Company Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No</td>
<td>Metrolinx</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
<td>Ontario Ministry of Tourism, Culture and Sport</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
<td>AECOM</td>
</tr>
</tbody>
</table>

Revision Log

<table>
<thead>
<tr>
<th>Revision #</th>
<th>Revised By</th>
<th>Date</th>
<th>Issue / Revision Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Michael Greguol</td>
<td>October 21, 2016</td>
<td>Revised based on comments received from Metrolinx</td>
</tr>
<tr>
<td></td>
<td>Emily Game</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Michael Greguol</td>
<td>December 7, 2016</td>
<td>Finalized based on comments received from Metrolinx</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AECOM Signatures

Report Prepared By:

Emily Game, B.A.
Heritage Researcher

Report Prepared By:

Michael Greguol, M.A.
Cultural Heritage Specialist

Report Reviewed By:

Fern Mackenzie, M.A.
Senior Architectural Historian
Table of Contents

Distribution List
Executive Summary

1. Introduction ................................................................................................................................. 2
   1.1 Historical Summary .................................................................................................................. 2
   1.2 Description of Property ........................................................................................................... 2
   1.3 Current Context ....................................................................................................................... 2

2. Methodology and Sources ........................................................................................................... 5
   2.1 Study Approach ....................................................................................................................... 5
   2.2 Secondary Sources .................................................................................................................. 5
   2.3 Primary Sources ..................................................................................................................... 5
   2.4 Consultations .......................................................................................................................... 6

3. Heritage Recognitions ................................................................................................................. 7
   3.1 Municipal ............................................................................................................................... 7
   3.2 Provincial .............................................................................................................................. 7
   3.3 Federal ..................................................................................................................................... 7

4. Adjacent Lands ............................................................................................................................ 8

5. Archaeology ............................................................................................................................... 9

6. Community Input ......................................................................................................................... 10

7. Discussion of Historical or Associative Value ............................................................................. 11
   7.1 Historic Theme/Cultural Pattern ............................................................................................ 11
       7.1.1 Transportation .................................................................................................................. 11
       7.1.2 Grade Separation ............................................................................................................ 11
   7.2 Local History .......................................................................................................................... 12
       7.2.1 Settlement History ........................................................................................................... 12
       7.2.2 Site History ..................................................................................................................... 13
   7.3 Person/Event/Organization .................................................................................................... 13
       7.3.1 Grand Trunk Railway ....................................................................................................... 13
       7.3.2 Hamilton Bridge Works Company .................................................................................. 14

8. Discussion of Design or Physical Value ...................................................................................... 15
   8.1 Style/Type/Tradition ................................................................................................................ 15
   8.2 Function ................................................................................................................................... 16
   8.3 Fabric ....................................................................................................................................... 16

9. Discussion of Contextual Value.................................................................................................. 17
   9.1 Social Meaning ....................................................................................................................... 17
   9.2 Environment ........................................................................................................................... 17
   9.3 Formal Recognition ................................................................................................................. 17

10. Data Sheet ................................................................................................................................. 18

11. Figures ......................................................................................................................................... 20
12. Maps ........................................................................................................................................... 27
13. Chronology .................................................................................................................................. 31
14. Bibliography .................................................................................................................................. 32
Executive Summary

Metrolinx retained AECOM to conduct a Cultural Heritage Evaluation Report (CHER) for the Eastern Avenue Subway as part of the Lakeshore East Rail Corridor Expansion – Don River to Scarborough GO Station Transit Project Assessment Process (TPAP).

Metrolinx is evaluating expanding and improving the Lakeshore East Rail Corridor between the Don River and Scarborough GO Station (Mile 332.50 to Mile 324.97) in the City of Toronto. The proposed works include:

- Addition of a fourth track on the south side between the Don River Bridge and Gerrard Street with the track shifting to the north side between Pape Avenue and Scarborough GO Station;
- Widening of bridges at: Woodbine Avenue, Warden Avenue, and Danforth Avenue;
- Widening works under the Birchmount Road, Warden Avenue, and Danforth Avenue;
- Layout changes at Danforth GO Station;
- Retaining walls;
- Three culvert extensions: east of Coxwell Avenue. (Mile 329.50), east of Kennedy Road. (Mile 325.74) and Scarborough Junction (Mile 325.55).

This project will support service reliability and future service expansions as part of the transformational GO Expansion Program.

The project impacts will be assessed following the TPAP, as prescribed in Ontario Regulation 231/08 under the Environmental Assessment Act. As part of the TPAP, an Environmental Project Report (EPR) will be prepared for public review.

A field review of the Eastern Avenue Subway, located at Mile 331.89 (Map1) was undertaken on February 23, 2016 by Emily Game and Michael Greguol, of AECOM.

The Eastern Avenue Subway consists of reinforced concrete abutments with pedestrian spans constructed into the substructure, a steel plate girder structure that forms the main span of the subway, and the railway embankment that carries the rail corridor over Eastern Avenue (Figures 1 to 16). When designed in 1926, it was to extend the full width of the street (66 feet) and would have a minimum street clearance of 14 feet, while the embankment would have an average height of 18 feet. The structure appears to have been built as designed.

The CHER was prepared according to the Metrolinx Interim Cultural Heritage Management Process and utilizes the criteria in Ontario Regulation 9/06 and Ontario Regulation 10/06, as required by the Ministry of Tourism, Culture, and Sport’s (MTCS) Standards and Guidelines for the Conservation of Provincial Heritage Properties (2010). In addition, the CHER was prepared according to the Metrolinx Draft Terms of Reference for Consultants: Cultural Heritage Evaluation Report and Cultural Heritage Evaluation Report Recommendations. As such the recommendations as they relate to this CHER and the potential cultural heritage value or interest of the Eastern Avenue Subway are contained in a separate Cultural Heritage Evaluation Report Recommendations (CHERR) document.

The CHER was prepared by Michael Greguol, M.A., Cultural Heritage Specialist and Emily Game, B.A., Heritage Researcher with AECOM. Charlton Carscallen, M.A., Cultural Resources Technical Practices Manager acted as project lead.
1. Introduction

1.1 Historical Summary

The Eastern Avenue Subway is located on what was historically the southern part of Lot 15, Concession I from the Bay, in the Township of York, Ontario County. The Grand Trunk Railway (GTR) was constructed through the lots in 1850s. By 1878, the lots had been subdivided, although no owners are listed on the lots surrounding the subway. At the time, both properties appear to be subdivided for residential purposes. The closest structures included the Don Mount post office and a Presbyterian Church, located north of the Eastern Avenue Subway, on Queen Street East.

The GTR undertook an ambitious double-tracking program during the 1890s to twin their existing lines between Toronto and Montreal. The GTR became a part of the Canadian National Railway (CN) in the 1920s. In June of 1925, CN began the Toronto Waterfront Grade Separation project, a massive undertaking which included the construction of a viaduct and several subways and bridges along the rail corridor. Metrolinx has since acquired a portion of the CN Kingston Subdivision in 2011, and the property continues to be maintained as an operating railway corridor.

1.2 Description of Property

The Eastern Avenue structure consists of reinforced concrete abutments with pedestrian spans, and a steel plate girder span that forms the main span of the subway. The structure carries the railway lines over Eastern Avenue on a railway embankment that was designed to have an average height of 18 feet. The embankment and structure was built as a part of the grade separation project undertaken by the CN in the early and mid-20th century. Specifically, the Eastern Avenue Subway crosses over Eastern Avenue between Lewis Street and McGee Street (Figures 1 – 2).

1.3 Current Context

The property has continued to function as part of the rail corridor since its construction in 1926. The subway is situated between Broadview Avenue and Booth Avenue and carries the rail corridor over Eastern Avenue. The streets north of Eastern Avenue, Lewis, Saulters and McGee Streets are largely residential. Lands south of the subway are a combination of industrial and commercial, including automobile dealerships, an Enbridge maintenance facility and furniture stores. The Don River and Don Valley Parkway are located approximately 1.5 kilometres west of the subway.
Map 1: Aerial Photograph Indicating the Location of the Eastern Avenue Subway
Figure 1: View to the Eastern Avenue Subway, facing west (AECOM, 2016)

Figure 2: View across Eastern Avenue from under the subway structure, showing open arch cuttings and railings, at street level (AECOM, 2016)
2. Methodology and Sources

2.1 Study Approach

This CHER was prepared in accordance with Metrolinx’s *Interim Cultural Heritage Management Process* (Fall 2013) and the MTCS *Standards and Guidelines for the Conservation of Provincial Heritage Properties* (2010). The CHER was also undertaken according to the guidelines presented in the Metrolinx document, *Draft Terms of Reference for Consultants: Cultural Heritage Evaluation Report and Cultural Heritage Evaluation Report Recommendations* (February 2014) at outlined in the following tasks:

- Research and Documentation Gathering – gathered from various sources including existing heritage studies, Metrolinx records, public archives, and published materials;
- Writing – an illustrated report based on gathered background history and site investigation materials, and the application of Ontario Regulations 9/06 and 10/06;
- Evaluation, Recommendations, and Statement of Cultural Heritage Value – a summary of the applicable evaluation, and recommendations regarding whether the property meets criteria of being a Provincial Heritage Property (PHP), a Provincial Heritage Property of Provincial Significance, or neither.

As outlined in the Draft Terms of Reference (Metrolinx, February 2014), the heritage evaluation is to be separated into two stand-alone components: A CHER and a CHERR. The Cultural Heritage Evaluation Report includes the research conducted for the CHER and is aimed to address the criteria set out in O. Reg. 9/06 and O. Reg. 10/06. The CHERR includes the results of the applied evaluation, and the recommended outcome of the evaluation.

Emily Game and Michael Greguol, Cultural Heritage Specialists for AECOM conducted a site investigation to visually inspect and document the Eastern Avenue Subway on February 23, 2016.

2.2 Secondary Sources

A series of secondary sources were reviewed for the purposes of data collection and analysis as a part of the CHER. The relevant guidelines and reference documents referenced above served as a means of a framework for undertaking the study. The *Cultural Heritage Screening Report for Built Heritage Resources and Cultural Heritage Landscapes – Lakeshore East Metrolinx Corridor Expansion* prepared by AECOM (CHSR) in June 2016 provided a preliminary review of the rail corridor and the potential heritage properties identified along the corridor for the purposes of the study. Background information and applicable research was gathered from the report for the purposes of the CHER. In addition, a series of published materials including published histories pertaining to the history of Toronto, and railway development throughout the 19th and 20th centuries, were consulted for contextual purposes. A complete list of the sources reviewed for the report is contained in Section 14 (Bibliography).

2.3 Primary Sources

Where available, primary source material was consulted to provide a historic context for the evaluation of the potential heritage value of the Eastern Avenue Subway. A review of the following primary sources aided in the evaluation of the subway:

- *Tremaine’s Map of York County*;
- *Illustrated Historical Atlas of the County of York*;
- National Topographic Series Maps; and
A complete list of the sources reviewed for the report is contained in Section 14 (Bibliography).

2.4 Consultations

As part of this CHER, AECOM undertook consultation with municipal and provincial staff in order to identify any existing heritage recognitions for the structure. The following individuals and organizations were consulted while undertaking this CHER:

- Yasmina Shamji, Support Assistant, Heritage Preservation Services, City of Toronto;
- Jeremy Collins, Acquisitions Coordinator, Ontario Heritage Trust; and
- Rob vonBitter, Archaeological Data Coordinator, Ministry of Tourism, Culture and Sport.

The results of the consultation have been summarized in Section 6 (Community Input).
3. Heritage Recognitions

3.1 Municipal

As a review of applicable municipal heritage recognitions for the property or adjacent properties, AECOM reviewed the searchable *Inventory of Heritage Properties* administered by Heritage Preservation Services at the City of Toronto as well as existing Heritage Conservation Districts (HCD) within the City of Toronto, and HCDs currently under study within the city.

The Eastern Avenue Subway property was not included on the City’s *Inventory of Heritage Properties* nor is it located within an existing or proposed HCD.

In addition, consultation with Yasmina Shamji, Support Assistant for Heritage Preservation Services, City of Toronto confirmed that the structure is not on the City’s Heritage Register and there are no further heritage concerns related to the structure from the City.

3.2 Provincial

As a review of applicable provincial heritage recognitions for the property or adjacent properties AECOM reviewed the Ontario Heritage Trust’s (OHT) Provincial Plaque Guide, and list of OHT easements. The subway is neither a subject of a provincial plaque or a provincial easement. In addition, OHT staff was contacted to review the Ontario Heritage Act Register to confirm that the subway is not included on the register and that an OHT easement does not exist for the property.

Jeremy Collins, Acquisitions Coordinator for the Ontario Heritage Trust confirmed that the Ontario Heritage Trust did not have an entry relating to the railway structure at Eastern Avenue.

3.3 Federal

A review of applicable federal heritage recognitions for the property or adjacent properties, AECOM reviewed the online searchable database for the Canadian Register of Historic Places as well as the Directory of Federal Heritage Designations. The Eastern Avenue Subway and the adjacent properties are not subject to any existing federal heritage recognitions.
4. **Adjacent Lands**

The properties adjacent to the railway corridor reflect a variety of land uses including residential, commercial, and public park properties. The Don River and Don Valley Parkway, a municipal expressway that runs north-south adjacent to the river, are located approximately 1.5 kilometers west of the subway.

In addition, AECOM has completed a Stage 1 Archaeological Assessment for the project. For complete details regarding the results of the Archaeological Assessment, please see *Stage 1 Archaeological Assessment, Lakeshore East Rail Corridor Expansion, Don River to Scarborough GO Station (Segment 1), City of Toronto, Ontario (June 2016).*
5. **Archaeology**

Mapping on the City of Toronto’s Open Data website indicates that a small section of land north of Eastern Avenue Subway contain areas of archaeological potential (Map 5).

In addition, AECOM has completed a Stage 1 Archaeological Assessment (AA) for the project; refer to *Stage 1 Archaeological Assessment, Lakeshore East Rail Corridor Expansion, Don River to Scarborough GO Station (Segment 1), City of Toronto, Ontario* (June 2016).

The results of the Stage 1 AA indicate that, while the majority of the lands within the study area appear to have been disturbed by past development, there are portions which still retain archaeological potential. This is based on the presence of historic homesteads, the proximity of historic roads and railway, other archaeological sites and certain physiographic features in proximity the study area.

For lands within the study area that contain archaeological potential and will be impacted by the proposed Lakeshore East Rail Corridor Expansion - Don River to Scarborough GO Station Project, AECOM makes the following recommendations:

1) A Stage 2 AA should be conducted by a licensed consultant archaeologist using the test pit survey method at 5 m intervals in areas of archaeological potential.

2) Due to the potential for deeply buried intact archaeological resources on floodplains and beneath land alterations, Stage 2 AA will be required, following Section 2.1.7, Standard 2 of the *Standards and Guidelines for Consultant Archaeologists*. Should test pitting by hand not reach subsoil (i.e. the area is found to have potential but it may be deeply buried), the survey methodology outlined in Section 2.1.7, Standard 3 or Guideline 2 for survey in deeply buried conditions must be adhered to.

3) Areas that are disturbed have been identified and require no further archaeological assessment.

4) The Stage 2 AA will follow the requirements set out in the 2011 *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011).
6. Community Input

As a part of the consultation process for this report, AECOM undertook consultation with Heritage Preservation Services at the City of Toronto, the Ontario Ministry of Tourism, Culture, and Sport, and the Ontario Heritage Trust. The results of the consultation efforts are identified below in Table 1.

Table 1: Community Input and Consultation Undertaken for the Eastern Avenue Subway

<table>
<thead>
<tr>
<th>Contact</th>
<th>Contact Information</th>
<th>Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeremy Collins, Acquisitions Coordinator, Ontario Heritage Trust</td>
<td>416-212-1736 <a href="mailto:jeremy.collins@heritagetrust.on.ca">jeremy.collins@heritagetrust.on.ca</a></td>
<td>April 12, 2016</td>
<td>The Ontario Heritage Trust does not have an Ontario Heritage Act entry relating to the Eastern Avenue Subway.</td>
</tr>
<tr>
<td>Yasmina Shamji, Support Assistant, Heritage Preservation Services, City of Toronto</td>
<td>416-392-1975 <a href="mailto:yshamji@toronto.ca">yshamji@toronto.ca</a></td>
<td>March 25, 2016</td>
<td>The Eastern Avenue Subway is not designated under Part IV of the Ontario Heritage Act, and is not included on the City of Toronto’s Heritage Register. In addition, the City did not identify any further heritage concerns related to the structure.</td>
</tr>
<tr>
<td>Rob vonBitter, Archaeological Data Coordinator, Ministry of Tourism, Culture and Sport</td>
<td><a href="mailto:Robert.vonBitter@ontario.ca">Robert.vonBitter@ontario.ca</a></td>
<td>Janay 20, 2016</td>
<td>No archaeological assessments completed within 50 metres of study area; resulting in the identification of no archaeological sites. In addition, AECOM submitted a Stage 1 Archaeological Assessment for the Project (Section 5).</td>
</tr>
<tr>
<td>Parks Canada - Canadian Register of Historic Places; Directory of Federal Heritage Designations</td>
<td><a href="http://www.historicplaces.ca">www.historicplaces.ca</a></td>
<td>March 9, 2016</td>
<td>Subject property not included in the Canadian Register of Historic Places or the Directory of Federal Heritage Designations</td>
</tr>
</tbody>
</table>
7. Discussion of Historical or Associative Value

7.1 Historic Theme/Cultural Pattern

7.1.1 Transportation

The earliest roads in Ontario were typically military roads or colonization roads. These roads often followed Indigenous hunting trails or were dictated by the topography of the land which they crossed. The Dundas Road which was opened to connect Toronto with the Thames River, in what is now London, Ontario and the Kingston Road, designed to provide a military link between Toronto and Kingston were some of the earliest and still functioning roads in southern Ontario.

Following the Crown surveys in Ontario, concession and side roads were opened on a grid that was dictated by the survey type that was used. The roads were cleared and made passable by the early land owners who built their dwellings adjacent to the concession roads. Despite being cleared, road conditions were often poor until the late 19th and early 20th centuries.

Railway transportation – both passenger and freight – greatly improved the transportation network in Ontario beginning in the mid-1800s. The opening of the Grand Trunk Railway (GTR) between Montreal and Toronto in 1856 provided a link between the two cities and provinces that was more easily travelled in comparison to mid-19th century roads. The construction of the route from Montreal to Toronto, and then on to Sarnia by the end of the 1860s resulted in the construction of significant structures such as the Victoria Bridge over the St. Lawrence River, or the St. Clair Tunnel in Sarnia. The GTR was designed to enhance the St. Lawrence-Great Lakes shipping routes in response to the railroads and shipping networks in the United States. As a result it also strengthened the connection and link between the townships, and municipal and provincial economies in Ontario.

Various railway companies were formed in Ontario to create a vast network of rail lines that spread throughout the province by the early-20th century. Nonetheless, most of the companies were merged with or purchased by the CN or the Canadian Pacific Railway (CPR). The GTR became a part of the CN network in 1923. In 2011, Metrolinx acquired a portion of the CN-owned Kingston Subdivision which included the Eastern Avenue Subway.

7.1.2 Grade Separation

When the GTR was completed in 1856, the majority of the railway line crossed roads at grade, most of which had little highway traffic (Figure 4). By the end of the 19th century increased railway traffic and the growth of motor vehicle usage, combined with streetcar traffic in urban centres like Toronto, led to large grade separation projects that would result in the construction of railway subways and overpasses to separate road and pedestrian traffic from railway traffic.

The grade separation projects in Toronto typically came in phases or eras between the 1890s and 1930s, and were spearheaded by public works and engineering offices within the City. At the Eastern Avenue crossing, pedestrian, horse and eventually automobile traffic increased along the railway line. Several fatal accidents that occurred at the intersection of Queen Street East and De Grassi Street involving freight trains, Toronto Transit Commission (TTC, established 1920) street cars and automobiles. The most well-known accident occurred on September 11, 1926 when four CN freight cars collided with a TTC streetcar at the same location as a fatal 1904 incident. The construction of the Queen Street East subway structure was scheduled to begin two days after the 1926 accident.¹

The Toronto Waterfront Grade Separation program was undertaken by the Canadian National Railway in the 1920s, taking five years to complete. The project involved the construction of an 18-foot high viaduct along the waterfront to carry the railway tracks to Union Station. The railway was raised to a height of 18 feet and required 2.6 million cubic yards of earth fill, eliminating dangerous level crossings. In order to construct the viaduct, a raised wooden trestle was first constructed, and then train cars unloaded fill which was taken from pits in Scarborough and Leaside until the trestles were full buried and the earthworks were formed (Figure 5).\footnote{The Distillery, “Distillery District Heritage” www.distilleryheritage.com (accessed March 2016).}

7.2 Local History

The Eastern Avenue Subway is located within the City of Toronto, Ontario. Historically, the subway was located within the Township of York in the County of York. The subsections below include historic information related to the settlement and growth of these municipalities.

7.2.1 Settlement History

**York County:** York County is described in detail in the *Illustrated Historical Atlas of the County of York of 1878.*\footnote{Miles & Company, *Illustrated historical atlas of the county of York and the township of West Gwillimbury & town of Bradford in the county of Simcoe, Ont. (Toronto: Miles & Co., 1878), p. v ff.} Governor Simcoe had previously organized Upper Canada into nineteen counties, one of which was named York County. The County consisted of two ridings, east and west, bounded by Durham to the east, and the River Thames on the west. York was originally comprised of what are now the municipalities of York, Peel and Halton as well as Durham Region and the City of Toronto. By 1851 it had dramatically reduced in size as Wentworth, Halton, Ontario and Peel Counties had been separated from the County. Survey along the Lake began in 1791, with eleven Townships laid out between the River Trent and the head of the Bay of Quinte. In 1798, the County of York contained the Townships of Whitby, Pickering, Scarborough, York, Etobicoke, Markham, Vaughan, King, Whitchuch, Uxbridge, and Gwillimbury. The settlement of York began slowly, with no more than twelve houses built by 1795. In 1805, the Toronto Purchase was completed, with 250,880 acres transferred from the Mississauga’s for ten shillings. Many of the first settlers were United Empire Loyalists, who were supplied with either a Town lot or 200 acres. In 1794, a number of German families moved to York from New York City. By 1830, the population had grown significantly, to 17,025, and York was incorporated as the city of Toronto in 1834.

**The Township of York:** The Township of York was first surveyed in 1791 by Augustus Jones, at which time it was referred to as “Dublin.”\footnote{Adam, Graeme Mercer and Charles Pelham Mulvany 1885, pp. 77} At this time, all the surveying had accomplished was to run lines dividing the Townships. The name was soon changed to “York” and is referred to as such in a document from 1793. This document also suggests the Township was briefly named “Toronto” before its final change.\footnote{Adam, Graeme Mercer and Charles Pelham Mulvany 1885, pp.78} Messrs Aitken and Jones further surveyed York in 1793, although they did not finish. The Township was not fully surveyed until 1829 when the work was completed by Sir Samuel Street Wilmont\footnote{Adam, Graeme Mercer and Charles Pelham Mulvany 1885, pp.78}.

The population for York Township in 1798 was recorded in combination with the Home District, the Town of York, Etobicoke and Scarborough, for a total population of 749\footnote{Adam, Graeme Mercer and Charles Pelham Mulvany 1885, pp.79}. By 1820 the Township of York’s population had risen to 1,672, in 1825 it jumped to 2,412, and 5,720 inhabitants were recorded in 1842\footnote{Adam, Graeme Mercer and Charles Pelham Mulvany 1885, pp.80}. The 1881 census listed the population at 13,748; more than double its size of four decades earlier.
Early notable communities within York Township included Elia, Seaton Village, Parkdale, Willowdale, Newtonbrook, York Mills, Eglington and Davisville. The first village in the Township of York to be incorporated was Yorkville in 1884, followed by North Toronto in 1889. Riverdale, Rosedale, the Annex, Seaton Village and Sunnyside followed and were annexed directly to Toronto in the 1880s.

**1880s to First World War:** The streets on the east side of the Don River were some of the earliest streets developed in Toronto, this development stretched from the mid-1880s to the First World War. The houses in the vicinity of the rail corridor are a combination of Second Empire Row Houses, “Bay-n-Gable” style and examples of Edwardian Foursquare. The development of the study area in Victorian and Edwardian periods occurred on a relatively small-scale, with local builders or contractors constructing variations on established architectural styles.

### 7.2.2 Site History

In the 1860s the properties that the GTR cut across in the southern part of York Township were a mixture of residential and industrial properties. The 1860 Tremaine’s Map of Ontario County indicates that the lots had already been subdivided; no owners are listed on the lots adjacent to the subway. Approximately 20 years later, in 1878, the lot is depicted in the Illustrated Historical Atlas of the County of Ontario as still having no ownership (Map 4). On both maps the surrounding lots appear to be undeveloped. The closest structures were located north on Queen Street East including the Don Mount post office and the Presbyterian Church.

The adjacent properties continued to develop throughout the 20th century. By 1913, nearly all the lots north of the Eastern Avenue Subway have either brick or wooden houses constructed on them and there are many schools, churches and industrial buildings in the vicinity. The lands south of Eastern Avenue are primarily industrial, with the Consumers Gas Company and the Sunlight Soap Works buildings occupying much of the area. The route of the rail line and its right-of-way has appeared relatively unchanged since the 1850s.

As part of ongoing grade separation projects, the CN – who acquired the GTR corridor in 1923 – awarded the contract for the fabrication and erection of steel for the Eastern Avenue Subway in 1926 to Hamilton Bridge Works. The construction of the substructure was awarded to Dufferin Construction Company of Toronto. Prior to the erection of the steel girders, Dufferin constructed the abutments for the structures at Queen Street East, Eastern Avenue, and over the Don River. During the construction of the subway, pedestrian, street car and automobile traffic continued to travel along Eastern Avenue (Figure 9).

### 7.3 Person/Event/Organization

#### 7.3.1 Grand Trunk Railway

The GTR was created in the 1850s to build a railway line between Toronto and Montreal. The route was opened in 1856 and opened further west to Sarnia by the end of the 1850s. Specifically, a GTR line cut across the southern portion of York Township by 1850s. The line, as depicted on the 1860 Tremaine Map, and the 1877 map shown in the Illustrated Atlas of the County of Ontario, follows the shoreline and cuts north to avoid Frenchman's Bay, similar to the Kingston Road. The original line would have included a level-crossing of Eastern Avenue. The expansion of the GTR across Ontario was meant to offer competition to the US shipping network.

During the late-19th century the GTR undertook an aggressive double-tracking program to double its service between Toronto and Montreal. By the early-20th century, the GTR had expanded its service through a series of mergers and partnerships with other lines, however, in 1923 the newly formed, and publically-owned CN absorbed
the GTR through a reorganization of the company. The CN had assumed operation and management of the line between Toronto and Montreal including its structures such as bridges and culverts, which were maintained throughout the 20th century. In 2011, Metrolinx acquired the Kingston subdivision of the original route which included the Eastern Avenue Subway.

7.3.2 Hamilton Bridge Works Company

The Hamilton Bridge Works Company Limited was a well-known and prolific bridge building company, both provincially and nationally. It flourished in the latter part of the 1890s and well into the 20th century, specializing in steel bridge construction, and making steel for the fabrication of buildings and bridges. Notable bridge projects include several bridges over the Welland Canal, the Blue Water Bridge (Montreal), the Burlington Canal lift bridge, the Burlington Skyway Bridge on the Beach Strip over the Burlington Canal as well as the Lion’s Gate Bridge (Vancouver). The company ceased operation in 1984.
8. Discussion of Design or Physical Value

8.1 Style/Type/Tradition

The structure is designed as a single span subway structure and currently carries four tracks over Eastern Avenue as part of the elevated rail corridor east of the Don River. The Eastern Avenue subway consists of reinforced concrete abutments with pedestrian spans constructed into the substructure, a steel plate girder structure that forms the main span of the subway, and the railway embankment that carries the rail corridor over Eastern Avenue. When designed in 1926, it was to extend the full width of the street (66 feet) and would have a minimum street clearance of 14 feet, while the embankment would have an average height of 18 feet. The structure appears to have been built as designed.

The substructure is constructed of reinforced concrete and consists of a pair of abutments built into the earthen railway embankments. Each abutment also has a pedestrian span that is formed by the abutment wall immediately adjacent to the embankment, and a pair of arcaded pier walls that extend the width of the crossing separating pedestrian traffic from vehicular traffic. Each bay of the five arches forming both piers has a low concrete barrier wall and two horizontal tube guardrails. Like the arches themselves, the edges of the pier barrier walls are bevelled. The original section of the arcade (Figure 24, Typical Panel) shows that the present profile is the results of alterations. The walls within the pedestrian spans are coved into the ceiling with a smooth surface. In the centre span, the arcaded pier walls carry a concrete entablature that supports the steel girders, becoming part of the square piers on the exterior façades. The concrete façades on the subway and the wing walls include rectangular concrete panelling that adds depth and visual variety to the surface above the pedestrian spans and along the abutment and retaining walls. The retaining walls that have been constructed into the south abutment curve around their respective sidewalks. The date “1926” is impressed into the concrete on the south abutment/pier wall, indicating the date of construction.

The superstructure consists of steel girders and a concrete ballast deck. Six steel girders run in a longitude manner with the rail tracks. The outer two girder are completely visible, while only a portion of the bottom flange are visible on the interior four girders. The transverse steel I-beams supporting the deck are only visible by the bottom flange on the underside of the subway (Figure 15). Concrete has been poured in between the beams to form a ballasted deck. Concrete walkways are cantilevered on either side of the structure and include the common railings that are found on most railway structures. A conduit runs along the east side of the structure at the base of the railings (Figures 13-14).

The Eastern Avenue subway was part of the larger grade separation projects undertaken in Toronto in the early-20th century. The structure was one of three that were built in 1926 along with the Queen Street East subway, and the Don River Bridge. Similar structures were also built on Carlaw Avenue and Gerrard Street East in 1930-31.

The Eastern Avenue Subway shares a similar design with a number of other subway structures found elsewhere in Toronto and Ontario. The general configuration, the design of the concrete wingwalls, and pedestrian spans including the panelling design are also found on the Queen Street East Subway, the Carlaw Avenue Subway, the Gerrard Street East Subway, and the Victoria Park Avenue Subway. West of the Don River, similar structures are found carrying the railway corridor over Lower Jarvis Street, Lower Sherbourne Street, Parliament Street, and Cherry Street. Elsewhere in Ontario, similar concrete panelling can be seen on railway subway structures in cities such as London, Ontario. The overall design is relatively common for railway subway structures built in the early and mid-20th century in Ontario.

A specific designer for the structures could not be determined. The structures listed above were all designed internally at CN and were reviewed by the senior staff of the design department, However, the specific individuals who did the formal design work are unknown as they are identified solely by signatures on the design sheets.
8.2 Function

The structure has always functioned as a railway structure since its construction in 1926. Prior to the Eastern Avenue subway, the GTR, later CN tracks crossed the road. During construction a level crossing was left in place to continue to operate CN service. When designed and constructed, the structure was to carry four tracks, and continues to do so today. The first train passed over the Eastern Avenue subway in 1927, and it continues to function in the same manner.

8.3 Fabric

The subway consists of both concrete and steel, both common construction materials for railway structures in the 1920s. The substructure is constructed on reinforced concrete. At the turn of the 20th century, most railway abutments and piers were built of concrete as opposed to the earlier-used masonry structures. Railway structures constructed completely of concrete were not used much in Canada until the 1930s, despite being popular for highway construction. The concrete work for the subway was built by Dufferin Construction Co., of Toronto.

The steel superstructure of the Eastern Avenue subway was a common building material and element used extensively throughout the late-19th and early-20th centuries. Despite the introduction of structures built entirely of concrete, steel girders were used well into the 20th century and can be found as part of modern railway structures today. The steel for the Eastern Avenue subway was fabricated and erected by the Hamilton Bridge Works Co. Ltd., a well-known steel fabricator and bridge manufacturer in southern Ontario.
9. Discussion of Contextual Value

9.1 Social Meaning

The Eastern Avenue Subway is one of many concrete and steel plate girder structures that were constructed in the mid-20th century as a part of general grade separations across urban centres like Toronto. The structure was constructed in a similar manner to others along this corridor and includes a clearance of approximately 14 feet. The structure carries the rail line on an embankment with an average height of 18 feet, consistent with the rest of the grade separation through this portion of Toronto.

The rail corridor that is carried over Eastern Avenue was first constructed in the mid-1850s and is an important rail line and corridor that extends along the shores of Lake Ontario as part of the Toronto to Montreal corridor. The corridor is part of the original GTR route that was constructed throughout the province and continues to operate as an active rail line after over 150 years. The subway structure forms a part of the larger landscape and corridor that is part of the original GTR route, and a part of the grade separation efforts that were undertaken by CN following their acquisition of the route in the 1920s.

9.2 Environment

The rail corridor was raised through this part of Toronto as a part of grade separation efforts. As a result, the structure was built out of the historic necessity to raise the railway corridor above street level in order to ease the pedestrian, vehicular, and transit traffic congestion that was becoming evident in the early and mid-20th century. However, the subway structure is not physically, functionally, visually, or historically linked to its surroundings beyond its function as a railway subway structure.

9.3 Formal Recognition

The Eastern Avenue Subway is not formally recognized at the municipal, provincial, or federal level. The City of Toronto confirmed that the structure is not located within any Heritage Conservation Districts or Heritage Conservation District study areas.
## 10. Data Sheet

<table>
<thead>
<tr>
<th>FIELD</th>
<th>PROPERTY DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property Name</td>
<td>Eastern Avenue Subway</td>
</tr>
<tr>
<td>Municipal Address</td>
<td>N/A</td>
</tr>
<tr>
<td>Municipality</td>
<td>City of Toronto</td>
</tr>
<tr>
<td>Metrolinx/GO Transit Rail Corridor</td>
<td>Kingston Subdivision, MP 331.89</td>
</tr>
</tbody>
</table>
| Lat/Long                                   | Lat: 43.656721°  
Long: -79.346451°                                                          |
| PIN                                        | Unknown                                                                       |
| Ownership [Metrolinx, other government, or private, and any lease] | Metrolinx                                                                     |
| Aerial photograph indicating location of resource and property boundaries | ![Aerial photograph](image)                                                   |

**Current photograph of resource**

![Current photograph](image)

**Date of construction of built resources (known or estimated, and source)**

Constructed in 1926, and opened for railway traffic in 1927 (known, construction drawings).

**Date of significant alterations to built resources (known or estimated, and source)**

Regular repairs and maintenance appear to have taken place throughout the 20th century. Dates of alterations unknown.

**Architect/designer/builder (and source)**

Built by Canadian Pacific Railway

**Previous owner(s) or occupants**

Canadian National Railway constructed the subway structure shortly after acquiring the Grand Trunk Railway, who initially
constructed the rail corridor.

<table>
<thead>
<tr>
<th>Current function</th>
<th>Railway subway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous function(s)</td>
<td>Railway subway</td>
</tr>
<tr>
<td>Heritage recognition/ Protection (municipal, Provincial or federal)</td>
<td>None identified</td>
</tr>
<tr>
<td>Local Heritage Interest</td>
<td>None identified</td>
</tr>
<tr>
<td>Adjacent Lands</td>
<td>No recognized built heritage resources on adjacent lands</td>
</tr>
</tbody>
</table>
11. Figures

**Figure 3:** View to north of the original level crossing on Eastern Avenue

**Figure 4:** View to west along Eastern Avenue
Figure 5: View to east along Eastern Avenue

Figure 6: Construction of the south abutments of the Eastern Avenue Subway
Figure 7: Construction of the north abutment of the Eastern Avenue Subway, 1926

Figure 8: Eastern Avenue Subway construction, 1926
Figure 9: Eastern Avenue Subway construction, 1926

Figure 10: View of CN from the Eastern Avenue Subway
Figure 11: Construction of the trestle used to construct a railway embankment

Figure 12: A work train dumping fill to enclose the trestle used to construct a railway embankment
Figure 13: View looking west showing east side of Eastern Avenue subway (AECOM, 2016)

Figure 14: East side of Eastern Avenue Subway showing pedestrian span and walkway (AECOM, 2016)
Figure 15: View looking across Eastern Avenue showing arched cuttings in the concrete substructure (AECOM, 2016)

Figure 16: Detail showing railing systems that run in between concrete arches as part of the substructure (AECOM, 2016)
12. **Maps**

*Map 2: Location of the Eastern Avenue Subway*
Map 3: Location of the Eastern Avenue Subway on the 1860 Historic Atlas Map (Tremaine, 1860)
Map 4: Location of the Eastern Avenue Subway on the 1878 Historic Atlas Map (Miles & Co., 1878)
Map 5: Archaeological Potential Map (City of Toronto Open Source Data, 2016)
13. Chronology

The following indicates milestone dates, periods, and events in the structural evolution of the Eastern Avenue Subway and its surrounding environment:

1852  The Canadian Government announces its plan to build a railway between Toronto and Montreal
1853  The Grand Trunk Railway is formed by the amalgamation of the Grand Trunk Railway of Canada, Grand Junction Railway, Grand Trunk Railway Company of Canada East, Quebec and Richmond Railway, St. Lawrence and Atlantic Railway and the Toronto and Guelph Railway
1856  The GTR begins operating trains between Toronto and Montreal
1859  The GTR line between Toronto and Sarnia is complete
1887  The GTR begins double tracking the main line between Toronto and Montreal, the work was completed by 1903
1904  Fatal collision at Queen Street East railway crossing between a train and a wooden streetcar
1923  GTR becomes part of Canadian National Railway
1925  CN begins work on the Toronto Waterfront Grade Separation project, it is completed in 1930
1926  The Eastern Avenue Subway is constructed and opened for railway traffic in 1927
2001  GO Transit acquires the Stouffville line from CN.
14. Bibliography

Telephone and Email Conversations


Primary Sources


“Unusual Concrete Bridges are Built on the Canadian National.” Railway Age. Volume 93, No. 11. 1932.

Secondary Sources


Unpublished Reports


AECOM. Stage 1 Archaeological Assessment, Lakeshore East Rail Corridor Expansion, Don River to Scarborough GO Station (Segment 1). June 2016.


Electronic Sources


Appendix A

Selected Drawings

Eastern Avenue Subway, 1926

The drawings included in this Appendix are a selection of the most representative historic drawings, provided for the purposes of inclusion in the CHER. For a complete collection of drawings associated with the structure please refer to the drawings held on file with Metrolinx.
Figure 17: Eastern Avenue Subway, General Layout
Figure 18: Eastern Avenue Subway, East Abutment
Figure 19: Eastern Avenue Subway, West Abutment
Figure 20: Panelling of Abutments
Figure 21: Eastern Avenue Subway, Deck
Figure 22: Eastern Avenue Subway, Floor Details
Figure 23: Eastern Avenue Subway, Steel Superstructure
Figure 24: Eastern Avenue Subway, Fence Details