1 INTRODUCTION

1.1 Background

The Bronk Road Bridge is located on Bronk Road about 0.2 km north of Thrasher Road and spans Parks Creek, a tributary of the Moira River. Bronk Road is the road allowance between Lots 26 and 27, Concession 6, former Township of Thurlow, as shown on Figure 1.1 – Location Plan.

The bridge records indicate that it was constructed in 1930, as a cast-in-place, single span concrete T-beam structure on concrete abutments. It appears to be founded on spread footings, possibly on bedrock. The bridge has a span of 11.9 m±, a total width of 6.2 m± and a roadway width of 4.9m±. It accommodates one lane of traffic.

The City provided with the RFP the 2009 and 2010 Municipal Structure Inventory and Inspection (MSII) reports completed for the bridge, and three property plans for the Bronk Road and environs.

The MSII reports for the bridge indicate that the Annual Average Daily Traffic at the bridge is 100. The road can be considered a low volume road.

The inspection of the bridge generally confirmed the findings of the MSII Inspection Reports for the areas that were accessible on June 15, 2011. Photos of the structure and the creek are included in Appendix A.

The reconstruction of the Bronk Road Bridge is classified as a Schedule B project under the provisions of the Municipal Class Environmental Assessment, 2007, since the new bridge will be for the same purpose and use, and at the same location, but its hydraulic and road capacity will be greater than existing. The Schedule B process involves the issuance of a Notice of Commencement, development and evaluation of alternatives and their effects on the natural, social, and economic environments, hosting of a Public Information Centre, selection of the preferred alternative, filing of the EA Summary Report, and issuance of a Notice of Completion

1.2 Need and Justification

As required by legislation, the City inspects every structure within its jurisdiction every two years. The inspections are carried out based on the Ontario Structure Inspection Manual, prepared by the Ministry of Transportation (MTO).

The City's Municipal Structure Inventory and Inspection Report dated January 2011 identified the Bronk Road Bridge as priority number three (3). The MSII report estimates that the structure needs rehabilitation works estimated to cost $230,000 within the next 1 to 5 years, and that it would require replacement within the next 6 to 10 years, at an additional cost of $500,000.
Given the condition of the existing structure, and the projected investment of funds as described, the City considered that it is prudent to examine in detail the available rehabilitation options, including replacing the structure.

1.3 Study Area

For the purposes of this project, the Study Area was defined as Bronk Road for 200 m north and south of the existing bridge at Parks Creek. The study areas for the various components of the studies and analysis comprised the Parks Creek watershed for the hydrologic investigation, the reaches of Parks Creek from the bridge 50 m upstream and downstream of the bridge for the fisheries investigations, the segment 60 m north and south of the bridge for the archaeological investigations. Figure 1.2 – Study Area shows the study area for the hydraulic, geotechnical, fisheries and archaeological investigations.

1.4 Class Environmental Assessment Process

The Environmental Assessment Act (Revised Statutes of Ontario, Chapter E.18) applies to municipal projects or activities in Ontario. The purpose of the Act is the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment.

The Act defines Environment to include air, land, water; all life; social, economic and cultural conditions that influence people and communities; buildings, structures and devices made by humans; any result of human activities; and the combinations of all these, including their interactions.

The Act requires that any proponent who wishes to proceed with an undertaking must receive approval from the Minister of the Environment before proceeding. Accordingly, a Municipality must complete an environmental assessment (EA) describing

- the purpose of the undertaking;
- the rationale for the undertaking, alternatives to the undertaking and alternative methods of carrying out the undertaking;
• a description of the environment that may be affected by the undertaking, the possible
effects of the undertaking on the environment, and the prevention or mitigation
measures for those effects;
• advantages and disadvantages of the undertaking and the alternatives to the
undertaking; and
• the results of public consultation.

In an Individual Environmental Assessment Process the proponent develops Terms of
Reference and the environmental assessment is carried out and submitted to the Minister of
Environment for review and approval. The present project was carried out under the terms of
the Municipal Class Environmental Assessment.

The Act recognizes that there are classes of undertakings, defined on the basis of an attribute,
quality, or characteristic, or a combination of these. On this basis, the Act allows that
environmental assessments be carried out for a Class of Undertaking. Once the Class
Environmental Assessment is approved by the Ministry of the Environment, projects that are
within the Class and that are planned in accordance with the requirements of the Class
Environmental Assessment are considered approved. By following the pre-approved process,
the proponent has complied with the requirements of the Act, subject to compliance with the
approved class environmental assessment process.

The Municipal Class Environmental Assessment was prepared by the Municipal Engineers
Association to streamline the EA process for recurring municipal projects that are similar in
nature, usually limited in scale, and with a predictable range of environmental effects that are
responsive to mitigating measures.

The key principles for successful environmental assessment, whether individual or class,
include:

• Consultation with affected parties throughout the process, starting as early as possible
• Consideration of a reasonable range of alternatives to the undertaking and alternative
methods of implementation
• Identification and consideration of the potential effects of each alternative on the
environment as defined above.
• Evaluation of alternatives using systematic methods of evaluation, such that the
planning process results in narrowing the number of alternatives to a preferred
alternative
• Clear and complete documentation on the planning process and the methods and results
of the evaluations, such that the process can be traced by others.

The Municipal Class EA recognizes that projects undertaken by municipalities vary in their
potential for environmental impact, and classifies them according to their potential for adverse
environmental effects. On this basis, the Municipal Class EA groups projects into four Schedules as follows:

**Schedule A**
These projects are limited in scale, have minimal adverse environmental effects, and typically consist of normal maintenance and operational activities. These projects are considered pre-approved and may proceed without following the full EA planning process.

**Schedule A+**
These projects are also limited in scale, have minimal adverse environmental effects, and are considered pre-approved, but there is a requirement for public notification prior to construction or implementation of the project. The purpose of the notification is to inform the public of projects occurring in their local area. Although the public is informed of the project, there is no appeal mechanism to the MOE; concerns are directed to the municipal council.

**Schedule B**
These projects have the potential for some adverse environmental effects, thus requiring a screening process involving mandatory contact with directly affected public and relevant review agencies. If all concerns can be adequately addressed, the project may proceed. These projects generally include improvements and minor expansions to existing facilities.

**Schedule C**
These projects have potential for significant environmental effect and are subject to the full planning and documentation procedures specified in the Class EA document. An Environmental Study Report must be prepared and submitted for review by the public and relevant review agencies. If all public and agency comments and issues are resolved during the public review period, the project may proceed. These projects generally include construction of new facilities or major expansions to existing facilities.

The Municipal Class EA provides the process that must be followed by municipalities. The Municipal Class EA process is outlined on *Exhibit A.2*, extracted from the Municipal Class EA document.

For projects carried out on the basis of a Class EA, including the Municipal Class EA, Section 16 of the Act provides that the Minister of the Environment may issue an order requiring a proponent to comply with Part II of the Act before proceeding with the proposed undertaking. This is termed a "Part II Order". Members of the public have an opportunity to request that the Minister review the project to determine if the project should be subject to Part II. This request is termed a "Part II Order request".
EXHIBIT A.2 MUNICIPAL CLASS EA PLANNING AND DESIGN PROCESS

NOTE: This flow chart is to be read in conjunction with Part A of the Municipal Class EA

PHASE 1
- IDENTIFY PROBLEM OR OPPORTUNITY
- DISCRETIONARY PUBLIC CONSULTATION TO REVIEW PROBLEM OR OPPORTUNITY

PHASE 2
- SELECT SCHEDULE (APPENDIX 1)
- INVENTORY NATURAL, SOCIAL, ECONOMIC ENVIRONMENT
- IDENTIFY IMPACT OF ALTERNATIVE SOLUTIONS ON THE ENVIRONMENT AND MITIGATING MEASURES
- EVALUATE ALTERNATIVE SOLUTIONS; IDENTIFY RECOMMENDED SOLUTIONS

PHASE 3
- SELECT PREFERRED SOLUTION
- REVIEW ENVIRONMENTAL SURVEYS & CHOICE OF SCHEDULE
- PRELIMINARY EVALUATION OF PREFERRED DESIGN

PHASE 4
- COMPLETE ENVIRONMENTAL STUDY REPORT (ESR)
- ENVIRONMENTAL STUDY REPORT (ESR) PLACED ON PUBLIC RECORD TO REVIEW AGENCIES AND PUBLIC
- COPY OF NOTICE OF COMPLETION TO MOE-EXABRANCH

PHASE 5
- COMPLETE CONTRACT DRAWINGS AND TENDER DOCUMENTS
- PROCEED TO CONSTRUCTION AND OPERATION
- MONITOR FOR ENVIRONMENTAL PROVISIONS AND COMMITMENTS

Sanchez Engineering Inc.
May 2012
1.5 Selection of Schedule

Schedule B for municipal roads and structures indicates that replacement of bridges that are more than 40 years old and where the estimated cost of reconstruction is less than $2.7 million can be planned using Schedule B. Since at this time it is possible that the project will require that the bridge be replaced, it was confirmed that the project can be planned on that basis. Schedule B projects must follow Phases 1 and 2 of the Class EA process, as illustrated in Exhibit A.2.

From Exhibit A.2 of the Municipal Class EA, Schedule B projects require the following steps:

- Phase 1 – Problem or Opportunity
  - Identification and description of the problem or opportunity
  - Issuance of a Notice of Study Commencement

- Phase 2 – Alternative Solutions
  - Identification of alternative solutions to the problem
  - Select Schedule
  - Inventory and description of the natural, social, economic and cultural environments in the study area
  - Identification of the impacts of the alternative solutions on the environment, and mitigation measures
  - Evaluation of the alternative solutions
  - Preliminary identification of a preferred solution
  - Consultation with the public and review agencies
  - Confirmation of the preferred solution
  - Review and confirm the Schedule
  - Documentation of the Class EA planning process in a file or report
  - Filing of a Notice of Study Completion and provision of project files for public review
  - Opportunity for Public to request the Minister for a Part II Order
  - Address comments and conclude the Class EA process

1.6 Purpose of Project File Report

This Project File Report and filing of the Notice of Study Completion concludes the Class EA process for this project. The Project File Report is available for public review for thirty calendar days. If concerns regarding the project cannot be resolved in discussion with the City, a person or party may request that the Minister of the Environment make an order for the project to comply with Part II of the Environmental Assessment Act (referred to as a Part II Order), which requires an Individual Environmental Assessment. Requests must be received by the Minister within the 30-day review period. If no new or outstanding concerns are brought forward during the review period, the City of Belleville may complete detailed design and construction of the project.
1.7 Project Team

The Project Team for the Bronk Road Bridge Rehabilitation Class EA study was composed of the following individuals:

<table>
<thead>
<tr>
<th>City of Belleville</th>
<th>Manager of Engineering</th>
<th>Ray Ford, P.Eng.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Project Manager</td>
<td>Barry Simpson</td>
</tr>
<tr>
<td>Sanchez Engineering Inc.</td>
<td>Project Manager</td>
<td>Leo Sanchez, P.Eng.</td>
</tr>
<tr>
<td></td>
<td>Bridge Engineer</td>
<td>Cole Howson, P.Eng.</td>
</tr>
<tr>
<td></td>
<td>Topographic Surveys</td>
<td>Sandy Wakeling</td>
</tr>
<tr>
<td>Gamsby &amp; Mannerow</td>
<td>Design</td>
<td>Scott Kerr, EIT</td>
</tr>
<tr>
<td>Stringer’s Environmental</td>
<td>Fisheries</td>
<td>Doug Howell</td>
</tr>
<tr>
<td>Ground Truth Archaeology</td>
<td>Archaeological Assessment Stages 1 and 2</td>
<td>Nick Gromoff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Michael Berry</td>
</tr>
</tbody>
</table>