EXTRACT FROM COUNCIL MEETING MINUTES OF SEPTEMBER 25, 2012

Item 38, Report No. 33, of the Committee of the Whole, which was adopted without amendment by the Council of the City of Vaughan on September 25, 2012.

38

BOWSTRING ARCH BRIDGE ON HUMBER BRIDGE TRAIL CLASS ENVIRONMENTAL ASSESSMENT STUDY NOTICE OF STUDY COMPLETION <u>WARD 1</u>

The Committee of the Whole recommends approval of the recommendation contained in the following report of the Commissioner of Engineering and Public Works, dated September 4, 2012:

Recommendation

The Commissioner of Engineering and Public Works recommends that staff be directed to issue a Notice of Study Completion for the Class Environmental Assessment of the bowstring arch bridge on Humber Bridge Trail, recommending the rehabilitation of the bridge.

Contribution to Sustainability

The Class Environmental Assessment (Class EA) conducted on the bridge considers all environmental implications of each possible alternative action.

The recommended alternative is consistent with Green Directions Vaughan Goal #3: To ensure that Vaughan is a City that is easy to get around with a low environmental impact, in particular Objective 3.1: To develop and sustain a network of sidewalks, paths and trails that supports all modes of non-vehicular transportation.

Economic Impact

There is no direct economic impact as a result of this report. However rehabilitating the bowstring arch bridge on Humber Bridge Trail is estimated at a cost of \$800,000.00, funded from taxation.

Communications Plan

A comprehensive public consultation program to obtain input from all affected stakeholders was completed as part of the study. The main components undertaken included:

- A Notice of Study Commencement
- A Public Information Centre
- Various individual stakeholder meetings

All notifications related to the study were directly mailed to the affected stakeholders on the project mailing list, advertised in local newspapers and posted on the City's website.

A final Notice of Study Completion will be issued to area residents and stakeholders in the Fall of 2012. Upon issuance of this notice, the final study report will be placed on public record for a 30-day review period, in accordance with the requirements of the Municipal Class Environmental Assessment process.

<u>Purpose</u>

The purpose of this report is to seek Council's approval in principle of the conclusions and recommendations of the Humber Bridge Trail Bowstring Arch Bridge Class Environmental Assessment. A Draft Executive Summary for the study is appended to this report.

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF SEPTEMBER 25, 2012

Item 38, CW Report No. 33 - Page 2

Background - Analysis and Options

The 98 year old bridge requires rehabilitation or replacement

The Humber River, West Branch Bridge (Bridge No. 008601) is located on Humber Bridge Trail, approximately 200 m east of Highway 27 (See Attachment No.1). Humber Bridge Trail was the original alignment for Major Mackenzie Drive, however, when Major Mackenzie Drive was realigned to the south, the bridge and a portion of the road remained and the road was renamed as Humber Bridge Trail.

The existing bridge was constructed in 1914 and is an 18.3 metre single span, cast in place concrete bowstring arch bridge with a concrete deck and wearing surface. The bridge provides a roadway width of 3.7 metres and accommodates a single lane for two way vehicular traffic.

Regulations under the Highway Traffic Act (Section 123(2)) and the Bridges Act (Section 2) requires the City to ensure that the bridges are kept safe and in good repair. This requirement is completed through the performance of regular biennial structure inspections in accordance with the Ministry of Transportation Ontario Structure Inspection Manual. Recent inspections, carried out in 2010 and confirmed in 2012, indicate that the bridge is in an advanced state of disrepair and will require some form of rehabilitation or replacement for it to remain in service.

The bowstring arch bridge on Humber Bridge Trail provides the only vehicular access to 5789 Humber Bridge Trail, a residential property on the east bank of the Humber River. The City has a legal obligation to ensure that property road access is maintained. The City cannot close a road to deprive an owner of the only means of access, unless another is available. In addition, Humber Bridge Trail and the bridge are included in the City's Pedestrian and Bicycle Master Plan as a linkage to a future pedestrian hiking trail(s) along the Humber River.

A Class Environmental Assessment study to identify options and to recommend a solution is nearing completion

As the bridge is greater than 40 years of age, the City was required to undertake a Schedule "B" Class Environmental Assessment to identify an appropriate solution to address the structural and safety concerns, as well as access issues, associated with this bridge crossing the Humber River. This process includes developing alternative remedial solutions, evaluation of alternatives against a set of criteria, and selection of a preferred option. The City retained a consulting engineer, AECOM, to undertake this investigation.

The following are the three key areas of interest in relation to the bowstring arch bridge that factored heavily into this Class EA:

- Structural integrity
- Financial impact
- Heritage potential

A requirement of the Schedule "B" Class Environmental Assessment is that a review of the bridge's heritage potential must be undertaken. The heritage potential was assessed in accordance to the *Ontario Heritage Act* Regulation 9/06. The Act identifies criteria to be used in determining the cultural heritage value or interest of built heritage resources and cultural heritage landscapes. The set of criteria are grouped into the categories of Design/Physical Value, Historical/Associative Value and Contextual Value.

This bridge is not protected under the Ontario Heritage Act, therefore, there is no obligation for the City to preserve it. However, the bridge does have heritage significance which was reflected when evaluating the alternatives.

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF SEPTEMBER 25, 2012

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Tradeoffs with respect to these three key areas were addressed in order to select a preferred option for the bridge.

The following alternatives were investigated for the bridge:

1. Doing nothing puts the structural integrity of the bridge at risk and does not fulfill the City's obligation of providing access to 5789 Humber Bridge Trail

This alternative would allow the bridge to continue to deteriorate with minimal maintenance other than emergency repairs.

As the bridge deteriorates over time, the City would have to decommission the bridge when it is determined that it is no longer able to accommodate any vehicular access. This would involve demolishing or closing the bridge without replacing it. Decommissioning and removing the bridge would cost the City approximately \$284,000. However, access to 5789 Humber Bridge Trail would be eliminated as it is not technically and economically feasible to provide another access without crossing the Humber River. The potential for the alternative has been explored, and was found to be cost prohibitive, exceeding the cost of constructing a new bridge at this time.

Since this option does not immediately improve the safety of the bridge, and does not ensure that access will be maintained at 5789 Humber Bridge Trail, this option was deemed not feasible.

2. Decommissioning the bridge and constructing a new bowstring arch bridge would cost the City approximately \$1,700,000

This option considers construction of a new bowstring arch bridge. The costs associated with this option include retaining working easements, property acquisition, decommissioning of the existing bridge and construction of the new bridge. This option does improve the bridge's integrity and ensures that access will be maintained for 5789 Humber Bridge Trail. However, the cost is higher than other alternatives and it does not preserve its heritage potential. It also has increased potential for environmental impacts, and is therefore deemed not feasible.

3. Decommissioning the bridge and constructing a new "modern" bridge type would cost the City approximately \$1,350,000 and causes the loss of the bridge's heritage value

This option considers construction of a precast concrete box girder bridge and a structural steel bridge, both typical modern bridge types. The costs associated with this option include retaining working easements, property acquisition, decommissioning of the existing bridge and construction of the new bridge. This option does improve the bridge's integrity and ensures that access will be maintained for 5789 Humber Bridge Trail. However, the cost is higher than other alternatives and it does not preserve its heritage potential. It also has increased potential for environmental impacts, and is therefore deemed not feasible.

4. Rehabilitating the bridge is feasible and will cost the City approximately \$800,000

The City's engineering consultant thoroughly investigated the existing bridge, and determined that rehabilitation is possible, which will improve the structural integrity of the bridge, while preserving its heritage value. Rehabilitation of the bridge is the most cost effective alternative with the lowest environmental impact. In addition, it is the only option that successfully addresses the key areas of interest considered in the Class EA, including the maintenance of access to 5879 Humber Bridge Trail.

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF SEPTEMBER 25, 2012

Item 38, CW Report No. 33 - Page 4

A summary of the evaluation of each alternative solution according to all three key areas of interest in included in the Draft Executive Summary of the Environmental Assessment Report, which is attached to this report.

The Recommended Alternative

The recommended alternative contained within the DRAFT Environmental Study Report for the Humber Bridge Trail Bridge is to fully rehabilitate it. This is the most cost effective option, while improving the bridges safety and ensuring that access is maintained to 5789 Humber Bridge Trail. In addition, this is the only option that preserves the heritage potential, improves the structural integrity and minimizes impacts on the surrounding environment.

Relationship to Vaughan Vision 2020/Strategic Plan

In consideration of the strategic priorities related to Vaughan Vision 2020, the recommendations of the report will assist in enhancing and maintaining community safety, health and wellbeing, by ensuring that an appropriate level of service for bridge conditions are maintained for the citizens of Vaughan.

Regional Implications

None.

Conclusion

The DRAFT Environmental Study Report has been completed. The recommended alternative contained within the report is to fully rehabilitate the bridge.

Staff recommends that the DRAFT Environmental Study Report's Executive Summary be approved in principle, in order for the Notice of Study Completion to be publicly issued, allowing the process of finalizing the report to begin.

Attachments

- 1. Location Map
- 2. Draft Executive Summary AECOM Canada

Report prepared by:

Colin Cassar, C.E.T., Senior Engineering Assistant, ext. 8756 Vince Musacchio, P. Eng., PMP, Manager of Capital Planning and Infrastructure, ext. 8311

CC:mc

(A copy of the attachments referred to in the foregoing have been forwarded to each Member of Council and a copy thereof is also on file in the office of the City Clerk.)

COMMITTEE OF THE WHOLE - SEPTEMBER 4, 2012

BOWSTRING ARCH BRIDGE ON HUMBER BRIDGE TRAIL CLASS ENVIRONMENTAL ASSESSMENT STUDY NOTICE OF STUDY COMPLETION WARD 1

Recommendation

The Commissioner of Engineering and Public Works recommends that staff be directed to issue a Notice of Study Completion for the Class Environmental Assessment of the bowstring arch bridge on Humber Bridge Trail, recommending the rehabilitation of the bridge.

Contribution to Sustainability

The Class Environmental Assessment (Class EA) conducted on the bridge considers all environmental implications of each possible alternative action.

The recommended alternative is consistent with Green Directions Vaughan Goal #3: To ensure that Vaughan is a City that is easy to get around with a low environmental impact, in particular Objective 3.1: To develop and sustain a network of sidewalks, paths and trails that supports all modes of non-vehicular transportation.

Economic Impact

There is no direct economic impact as a result of this report. However rehabilitating the bowstring arch bridge on Humber Bridge Trail is estimated at a cost of \$800,000.00, funded from taxation.

Communications Plan

A comprehensive public consultation program to obtain input from all affected stakeholders was completed as part of the study. The main components undertaken included:

- A Notice of Study Commencement
- A Public Information Centre
- Various individual stakeholder meetings

All notifications related to the study were directly mailed to the affected stakeholders on the project mailing list, advertised in local newspapers and posted on the City's website.

A final Notice of Study Completion will be issued to area residents and stakeholders in the Fall of 2012. Upon issuance of this notice, the final study report will be placed on public record for a 30-day review period, in accordance with the requirements of the Municipal Class Environmental Assessment process.

Purpose

The purpose of this report is to seek Council's approval in principle of the conclusions and recommendations of the Humber Bridge Trail Bowstring Arch Bridge Class Environmental Assessment. A Draft Executive Summary for the study is appended to this report.

Background - Analysis and Options

The 98 year old bridge requires rehabilitation or replacement

The Humber River, West Branch Bridge (Bridge No. 008601) is located on Humber Bridge Trail, approximately 200 m east of Highway 27 (See Attachment No.1). Humber Bridge Trail was the original alignment for Major Mackenzie Drive, however, when Major Mackenzie Drive was realigned to the south, the bridge and a portion of the road remained and the road was renamed as Humber Bridge Trail.

The existing bridge was constructed in 1914 and is an 18.3 metre single span, cast in place concrete bowstring arch bridge with a concrete deck and wearing surface. The bridge provides a roadway width of 3.7 metres and accommodates a single lane for two way vehicular traffic.

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The bowstring arch bridge on Humber Bridge Trail provides the only vehicular access to 5789 Humber Bridge Trail, a residential property on the east bank of the Humber River. The City has a legal obligation to ensure that property road access is maintained. The City cannot close a road to deprive an owner of the only means of access, unless another is available. In addition, Humber Bridge Trail and the bridge are included in the City's Pedestrian and Bicycle Master Plan as a linkage to a future pedestrian hiking trail(s) along the Humber River.

A Class Environmental Assessment study to identify options and to recommend a solution is nearing completion

As the bridge is greater than 40 years of age, the City was required to undertake a Schedule "B" Class Environmental Assessment to identify an appropriate solution to address the structural and safety concerns, as well as access issues, associated with this bridge crossing the Humber River. This process includes developing alternative remedial solutions, evaluation of alternatives against a set of criteria, and selection of a preferred option. The City retained a consulting engineer, AECOM, to undertake this investigation.

The following are the three key areas of interest in relation to the bowstring arch bridge that factored heavily into this Class EA:

- Structural integrity
- Financial impact
- Heritage potential

A requirement of the Schedule "B" Class Environmental Assessment is that a review of the bridge's heritage potential must be undertaken. The heritage potential was assessed in accordance to the *Ontario Heritage Act* Regulation 9/06. The Act identifies criteria to be used in determining the cultural heritage value or interest of built heritage resources and cultural heritage landscapes. The set of criteria are grouped into the categories of Design/Physical Value, Historical/Associative Value and Contextual Value.

This bridge is not protected under the Ontario Heritage Act, therefore, there is no obligation for the City to preserve it. However, the bridge does have heritage significance which was reflected when evaluating the alternatives.

Tradeoffs with respect to these three key areas were addressed in order to select a preferred option for the bridge.

The following alternatives were investigated for the bridge:

1. Doing nothing puts the structural integrity of the bridge at risk and does not fulfill the City's obligation of providing access to 5789 Humber Bridge Trail

This alternative would allow the bridge to continue to deteriorate with minimal maintenance other than emergency repairs.

As the bridge deteriorates over time, the City would have to decommission the bridge when it is determined that it is no longer able to accommodate any vehicular access. This would involve demolishing or closing the bridge without replacing it. Decommissioning and removing the bridge would cost the City approximately \$284,000. However, access to 5789 Humber Bridge Trail would be eliminated as it is not technically and economically feasible to provide another access without crossing the Humber River. The potential for the alternative has been explored, and was found to be cost prohibitive, exceeding the cost of constructing a new bridge at this time.

Since this option does not immediately improve the safety of the bridge, and does not ensure that access will be maintained at 5789 Humber Bridge Trail, this option was deemed not feasible.

2. Decommissioning the bridge and constructing a new bowstring arch bridge would cost the City approximately \$1,700,000

This option considers construction of a new bowstring arch bridge. The costs associated with this option include retaining working easements, property acquisition, decommissioning of the existing bridge and construction of the new bridge. This option does improve the bridge's integrity and ensures that access will be maintained for 5789 Humber Bridge Trail. However, the cost is higher than other alternatives and it does not preserve its heritage potential. It also has increased potential for environmental impacts, and is therefore deemed not feasible.

3. Decommissioning the bridge and constructing a new "modern" bridge type would cost the City approximately \$1,350,000 and causes the loss of the bridge's heritage value

This option considers construction of a precast concrete box girder bridge and a structural steel bridge, both typical modern bridge types. The costs associated with this option include retaining working easements, property acquisition, decommissioning of the existing bridge and construction of the new bridge. This option does improve the bridge's integrity and ensures that access will be maintained for 5789 Humber Bridge Trail. However, the cost is higher than other alternatives and it does not preserve its heritage potential. It also has increased potential for environmental impacts, and is therefore deemed not feasible.

4. Rehabilitating the bridge is feasible and will cost the City approximately \$800,000

The City's engineering consultant thoroughly investigated the existing bridge, and determined that rehabilitation is possible, which will improve the structural integrity of the bridge, while preserving its heritage value. Rehabilitation of the bridge is the most cost effective alternative with the lowest environmental impact. In addition, it is the only option that successfully addresses the key areas of interest considered in the Class EA, including the maintenance of access to 5879 Humber Bridge Trail.

A summary of the evaluation of each alternative solution according to all three key areas of interest in included in the Draft Executive Summary of the Environmental Assessment Report, which is attached to this report.

The Recommended Alternative

The recommended alternative contained within the DRAFT Environmental Study Report for the Humber Bridge Trail Bridge is to fully rehabilitate it. This is the most cost effective option, while improving the bridges safety and ensuring that access is maintained to 5789 Humber Bridge Trail. In addition, this is the only option that preserves the heritage potential, improves the structural integrity and minimizes impacts on the surrounding environment.

Relationship to Vaughan Vision 2020/Strategic Plan

In consideration of the strategic priorities related to Vaughan Vision 2020, the recommendations of the report will assist in enhancing and maintaining community safety, health and wellbeing, by ensuring that an appropriate level of service for bridge conditions are maintained for the citizens of Vaughan.

Regional Implications

None.

Conclusion

The DRAFT Environmental Study Report has been completed. The recommended alternative contained within the report is to fully rehabilitate the bridge.

Staff recommends that the DRAFT Environmental Study Report's Executive Summary be approved in principle, in order for the Notice of Study Completion to be publicly issued, allowing the process of finalizing the report to begin.

Attachments

- 1. Location Map
- 2. Draft Executive Summary AECOM Canada

Report prepared by:

Colin Cassar, C.E.T., Senior Engineering Assistant, ext. 8756 Vince Musacchio, P. Eng., PMP, Manager of Capital Planning and Infrastructure, ext. 8311

Respectfully submitted,

Paul Jankowski, P. Eng. Commissioner of Engineering and Public Works Jack Graziosi, P. Eng. Director of Engineering Services

CC:mc



CITY OF VAUGHAN - ENGINEERING SERVICES DEPARTMENT

DRAFTSPERSON: B.R



ATTACHMENT NO. 2

Draft Executive Summary Humber Bridge Trail Bowstring Arch Bridge Class Environmental Assessment Study



AECOM

AECOM 300 – 300 Town Centre Boulevard Markham, ON, Cansda LSR 526 www.aecom.com

905 477 8400 teł 906 477 1456 fax

Humber Bridge Trail Bowstring Arch Bridge Class EA Draft Executive Summary

Project Background

The City of Vaughan (the City) recently carried out a Schedule "B" Class Environmental Assessment (EA) to identify an appropriate solution to address the structural and safety concerns, as well as access Issues, associated with this concrete bowstring arch bridge crossing the Humber River on Humber Bridge Trail (See Figure 1 attached). The bridge on Humber Bridge Trail, east of Highway 27, provides vehicular access to one residential property on the east bank of the Humber River along this road. The City retained AECOM to investigate and propose alternatives to improve the structural integrity of the bridge, as well as to identify a preferred solution for its rehabilitation or replacement.

Alternative Solutions Considered

As part of the Class EA process, several potential alternative solutions were considered for the bridge site, namely:

- Do Nothing This is used in EAs as the base case to measure all other alternatives against. This
 option can include the posting of prohibition signs, or transfer of bridge ownership to another
 party, such as the TRCA. This option could also include buying the property from the homeowner
 on the east bank of the river (Municipal address # 5789), thus eliminating the need to keep the
 bridge in service.
- Full rehabilitation, Including deck replacement, new handrails and repair/reinforcement of bridge components.
- Removal of the existing bridge and replacement with a new concrete bowstring arch bridge.
- Removal of the existing bridge and replacement with a typical modern design such as precast concrete or structural steel girders.
- Removal of the existing bridge. This would include construction of a new access road from the east side of the Humber River to provide access to the resident on the east bank.

The potential for ownership transfer to TRCA was explored but not included in the comparative evaluation. If this alternative was deemed to be viable and an agreement was put in place between the City and TRCA, the remainder of the Class EA process would not be required as TRCA would be the proponent of the bridge at that time. After internal discussions between the City and TRCA, it was determined that the City should proceed with the Class EA.

An evaluation of these alternatives can be found in Table 1 (attached).

The abovementioned replacement alternative is based on the MTO (Ministry of Transportation of Ontario) Guidelines for Design of Bridges on Low Volume Roads with Annual Average Daily Traffic (AADT) of less than 200 vehicles per day and an operating speed of less than 70 kilometres per hour. This provides a required bridge deck width of 4.0 metres between barriers. If the bridge is widened to a full two lane section, under the assumption that it would no longer be classified as a Low Volume Road, the width would be increased to approximately 10.0 metres between curbs. The replacement alternatives are based on an increased span to provide construction of the new abutments beyond the limits of the river as is typically required for environmental permits. The estimated costs for bridge removal do not include property acquisition or the construction of alternative access roads.

Key Areas of Interest

There are three key areas of interest in relation to the bowstring arch bridge that factor heavily into the comparative evaluation of this EA:

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- 1) Heritage potential;
- 2) Structural integrity; and,
- 3) Financial Impact.

Tradeoffs with respect to these three key areas were included in the evaluation in order to select a preferred option for the bridge.

<u>1 - Heritage Potential</u>

Built in 1918, and having not previously undergone any major rehabilitation or repair work, the Humber Bridge Trail bridge can be considered an intact example of a concrete bowstring arch bridge commonly constructed across Ontario in the early 20th Century. Results from the heritage assessment carried out by Archaeological Services Inc. (ASI) confirmed that the Humber Bridge Trail bridge retains significant heritage potential, scoring 70 out of 100 on the Ontario Heritage Bridge Program evaluation. Given its age and the lack of any significant restoration in its past, the bowstring arch bridge is in an advanced state of disrepair, compromising its structural integrity, and in turn, the wellbeing of bridge users. This project provides an opportunity to both preserve the heritage features of the bowstring arch bridge as well as improve its structural integrity and the connection along Humber Bridge Trail; however, the cost of achieving these goals must be factored in as well.

2 - Structural Integrity

The Humber Bridge Trail Bridge was constructed in 1918 and is a 19.5 metre span concrete bowstring arch bridge providing a roadway width of 3.9 metres (i.e. one lane/car-width). Overall the bridge is in poor condition with a Bridge Condition Index (BCI) of 49.0 (a BCI of below 60 is considered poor based on the MTO methodology). The bridge deck, vertical arch hangers, bottom arch chord and handrails are extensively deteriorated. The top chord of the arch, transverse floor beams, abutments and wingwalls are in somewhat better condition, but have also experienced decay. The bridge has a 5 tonne load limit, which would support most vehicles, but not larger emergency vehicles. Due to the advance state of disrepair, there is a significant risk to users of this bridge, particularly in relation to the bridge's damaged and in some cases, obsolete guiderail. Further, portions of the bridge are showing a significant amount of spalling, where the concrete essentially breaks off in small pieces.

3 - Financial Impact

The estimates for the financial impact of the alternatives revealed that the rehabilitation option has similar costs to the remove and replace options. The estimates for each alternative are specified in **Table 1**. It should be noted that the "Do Nothing Option," while not incurring any immediate costs, does expose the City to the risk of high liability costs, should a personal injury or death occur in the event of an accident. Should the bridge ultimately collapse in the future, even without an injury, the cost of environmental remediation, emergency repair or removal, and legal claims for compensation would be significant.

Comparative Evaluation Results

In considering each of the key 'Areas of Consideration' (Technical, Natural Environment, Social Environment, Cultural Environment, and Financial) and weighing the potential tradeoffs, *Full Rehabilitation of the Bridge* was selected as the recommend solution for both the Humber Bridge Trail bridge. Implementing this solution was determined to be the only means of preserving the

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heritage aspect of the bridge, as well as improving its structural integrity and minimizing impacts on the surrounding environment, thereby addressing the objectives for the Class EA study.

This recommended solution is the most cost effective solution for the City to Implement which successfully addresses the problem/opportunity statement.

Public and Stakeholder Interest

Consultation with the public and government review agencies was carried out throughout the Class EA process in order to inform stakeholders of the project details and provide all interested parties an opportunity to contribute their input or comments related to the undertaking. A Notice of Commencement was published during the week of September 1, 2010 and notices were subsequently delivered to relevant stakeholders, government agencies, and residents in the vicinity of the bridge.

Additional consultation was undertaken through a Public Information Centre (PIC), which was advertised in *Vaughan Weekly* and through direct mailing. The purpose of the PIC was to present the existing environmental conditions In and around the bridge, provide the results of the comparative evaluation of the alternative solutions, and present the recommended alternative solution for the bridge.

The event was held in the Basement Meeting Room of the Kleinburg Public Library on July 21, 2011 from 6 p.m. to 9 p.m. The first hour of the PIC was an open house format, allowing participants to browse through display panels arranged around the room outlining the progress of the project to-date, and to ask questions of the Project Team members in attendance. A reference table including a binder with all of the existing condition reports, the comparative evaluation matrix, and relevant articles on other bowstring arch bridges was also set up in a corner of the project, including the rationale; problem/opportunity statement; outline of the existing conditions; the comparative evaluation process; and the recommended alternative solution. Following the presentation, attendees were given the opportunity to ask guestions.

A total of 19 people attended the PIC, most of who stayed for the duration of the evening. All attendees were asked to sign-in and were given the option to have their names added to the project-specific contact list to be notified of any project news. Each participant was given a comment sheet and encouraged to provide their comments on the event, the EA process, and recommended alternative solution.

Given its heritage potential, as well as its significance in regards to the residence on the east bank of the Humber River on Humber Bridge Trail, this EA has been found to be of considerable importance to certain agencies and members of the public. The project team has met with the TRCA to discuss this bridge and found the preference of TRCA to be the rehabilitation the bowstring arch bridge in a manner sympathetic to the original design. TRCA have completed their own inventory of heritage bridges that cross the Humber River, which has been designated as a Canadian Heritage River.

The recommended solution put forward at the PIC were well received by TRCA and the public attendees. Throughout the Class EA process, a number of comments have been received from the public regarding the Class EA.

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Species At Risk Considerations

Fleid investigations determined that habitat compensation will be required to address constructionrelated disturbance (i.e., plantings to compensate for any disturbed substrate and/or tree removal) at the bridge site. Endangered Butternut was found to occur in the study area, (although not recorded within 30 metres of the bridge) and will require Ontario Ministry of Natural Resources (MNR) involvement in order to address the *Endangered Species Act* (ESA). The occurrence of regionally rare flora species in the study area may trigger growing season inventories in order to obtain regulatory permits from TRCA. In addition, other standard legislation will apply, including authorizations under the *Fisheries Act*, *Migratory Bird Act*, other MNR approvals, and tree removal by-laws. It should be noted that these items, while increasing project costs and delays, are not deemed to be "show-stoppers" and are not insurmountable for the recommend solution to proceed.

Next Steps

A draft Environmental Screening Document (ESD) has been prepared for the undertaking, documenting the required steps in a Schedule B Class EA process. Once Council have endorsed the findings of the project, we will finalize the report and issue a Notice of Completion to review agencies and the public and post the ESD for a minimum period of 30 calendar days. During this time, the public and review agencies have the ability to submit a Part II Order under the EA Act. Given that consultation has occurred and the public and agencies are in favour of the recommended solution, we do not anticipate any Part II Orders for this project.

Following the end of the review period, if there are no outstanding Part II Order requests, the City of Vaughan may proceed to Phase 5 of the Class EA process to complete contract drawings and tender documents, obtain additional permits (i.e. MNR and TRCA) and then move on to construction.

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FIGURE 1

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