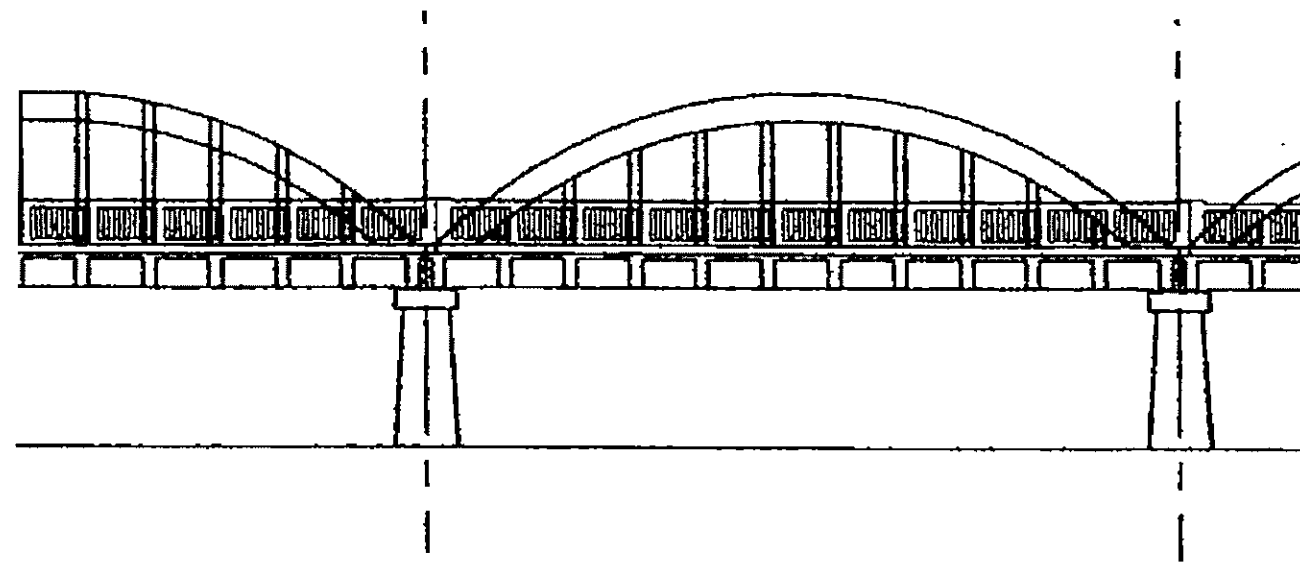


*Argyle Street Bridge Replacement Study -  
Caledonia, Haldimand County*



*Context Sensitive Design Workshop Summary Report*

May 2005  
The Planning Partnership

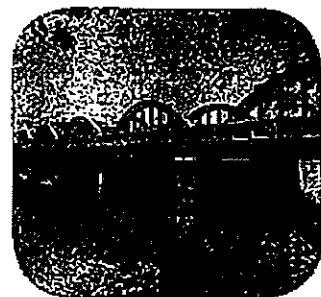


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APPENDICES

Appendix 1	Design Workshop agenda: April 18 - 19, 2005
Appendix 2	List of Study Team Members
Appendix 3	Ministry of Transportation Invitation Letter
Appendix 4	Background Information Package



The Ministry of Transportation (MTO) chose to undertake a context sensitive design workshop for the Argyle Street South Bridge Environmental Assessment. Context sensitive design is an approach to transportation planning that considers the total context of a project. It is an approach that is collaborative and interdisciplinary, involving people with a broad range of interests and opinions in problem solving. The approach is founded on an intent to create a solution that fits with the physical surrounding, respects the scenic, aesthetic, historic and environmental resources.

The Ministry chose to involve stakeholders through a workshop - a context sensitive design workshop, and retained The Planning Partnership to organize and facilitate the session. This is a new approach for the Ministry that demonstrates their commitment to a different way of engaging the community in a meaningful discussion on the Argyle Street South bridge in association with members of the project team. Stakeholders participate in design discussions that normally occur in project offices, and hence, there is a greater opportunity to fully understand the decision-making process.

The project team understands a range of local interests will greatly assist in development of various heritage bridge replacement alternatives that meet the community's needs. For this reason, the Ministry hosted the Design Workshop where participants from a broad spectrum of stakeholders and the public worked with the engineering design team to develop, review and evaluate the heritage component of a new bridge.

#### Background

In the fall of 2002, MTO retained Morrison Hershfield to carry out a Preliminary Design and Environmental Assessment study for the Argyle Street Bridge. The study has two components, first to determine whether the Argyle Street Bridge requires replacement or rehabilitation and secondly, if replacement is required, to provide a recommended replacement alternative. The purpose of the study is to investigate and propose a solution(s) for the rehabilitation or replacement of the bridge, as well as traffic management during construction.

This project is being conducted in accordance with the requirements for Group 'B' projects under the Class Environmental Assessment for Provincial Transportation Facilities (2000). The completion of the Preliminary Design and Environmental Assessment Study will enable the project to proceed to the Detailed Design stage.

The project team identified and evaluated the rehabilitation and preliminary replacement alternatives and determined the preliminary engineering recommendation was to replace the bridge. Bridge replacement was recommended due to the condition of the existing bridge and to reduce future maintenance and rehabilitation costs.

The project team presented the Argyle Street Bridge replacement recommendation and the proposed traffic detours during construction of the new bridge at a Public Information Centre on June 23, 2003. At that time, it was recommended the river crossing on Argyle Street be closed to both pedestrian and vehicular traffic during construction, and vehicular traffic would be detoured to the Highway 6 By-Pass.

Comments received from the Public Information Centre identified the following concerns:

- Loss of the bridge, a landmark and heritage feature in Caledonia and on the Grand River;
- Loss of access for vehicles, pedestrians and emergency services across the Grand River on Argyle Street during construction;
- Disruption to businesses on Argyle Street due to bridge closure; and
- Environmental impacts.

Based on comments received from the Public Information Centre, the project team continued to develop a number of bridge replacement and construction staging alternatives to address both the engineering requirements and stakeholder/public concerns. The project team continued to liaise with stakeholders to obtain input on the bridge replacement and traffic staging alternatives.

In August 2004, Haldimand County passed the following council resolutions:

1. Haldimand County agrees in principle, based on current information provided by the Ministry of Transportation, to a replacement bridge at the same location as the existing bridge;
2. Haldimand County agrees that the structure should include heritage features if a replacement bridge is the Ministry's recommended option;
3. Haldimand County prefers a three lane cross section for the proposed structure if a replacement structure is selected;
4. Haldimand County does not intend to carry out a separate Environmental Assessment (EA) for the project;
5. Haldimand County does not propose to cost share the full cost difference with MTO on a widened structure; and,
6. The detour alternatives proposed to date are not satisfactory to Haldimand County and MTO should research further options, including utilization of a widened structure as a detour during the construction phase.



## Agenda

A 2-day Design Workshop was held on April 18 - 19, 2005 at the Royal Canadian Legion, in the Village of Caledonia. (see Appendix 1 for Workshop Agenda) Two sessions were held:

- April 18 - 7:00 - 9pm Kick-off session
- April 19 - 8:30 - 3:30pm Design Workshop

The first evening was comprised of the kick-off presentations where information on the work completed to date, the condition of the bridge and the existing conditions were presented. In addition, there was a presentation of the general bridge types and precedents and the basic principles of bridge aesthetics.

A second presentation on the next day explained the Haldimand County Council resolutions that were passed in August 2004. Following the presentation, a working session was held during which the participants were divided into three groups, to develop concepts for bridge replacement considering the location of sidewalks, traffic staging and heritage features. Existing site and context images, bridge structure templates, and copies of the presentation were available to the group to facilitate the design process.

## 2.0 Participants

Study team members attending the workshop included:

- Structural Engineers from MTO and Morrison Hershfield;
- Highway Design Engineers from MTO and Morrison Hershfield;
- Environmental Planners from MTO and Draycott Environmental Inc.;
- Aesthetics Engineer from Buckland and Taylor Ltd.;
- Heritage Architect from du Toit Architects Limited;
- Heritage and Archaeology Planner from MTO; and,
- Heritage Consultant from Archaeological Services Inc.

Appendix 2 includes a complete list of study team members.

Representatives from the following agencies were invited to the workshop through a letter included in Appendix 3:

- a) First Nations
  - Mississaugas of the New Credit First Nation
  - Six Nations
  - Six Nations Confederacy
- b) Interest Groups
  - Caledonia Chamber of Commerce
  - Caledonia Business Improvement Association
  - Edinburgh Square Heritage & Cultural Centre
  - Tourism Caledonia
- c) Federal/Provincial Government
  - Grand River Conservation Authority
  - Haldimand-Norfolk Museum Archives
  - Ministry of Culture
  - Parks Canada
- d) Haldimand County
  - Economic Development Division
  - Engineering and Infrastructure Division
  - Grand River Advisory Committee
  - Planning and Economic Development Department
  - Tourism Division
  - Municipal Heritage Committee



- e) Others
- Councillor Ashbaugh
  - 3 citizen representatives

A Background Information Package was distributed to all participants in advance of the workshop. The information summarized the character of the existing bridge, the preliminary design and environmental assessment study, project progress, next steps, the list of participants and study teams, and the Heritage Bridge Impact Assessment (Appendix 4).



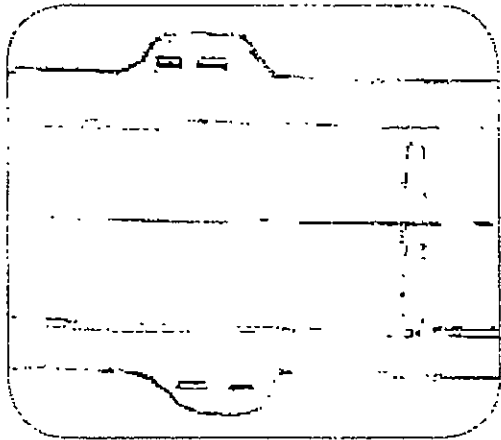
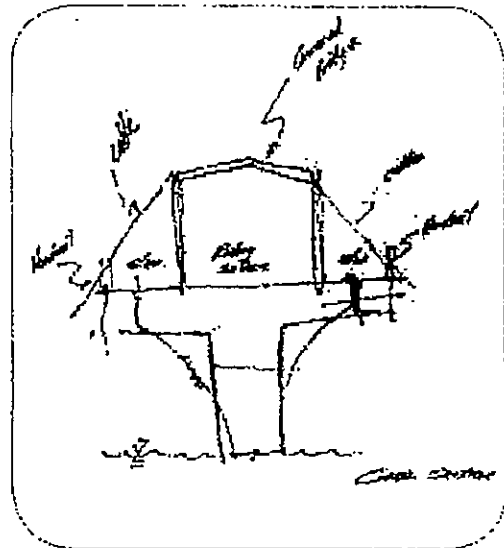
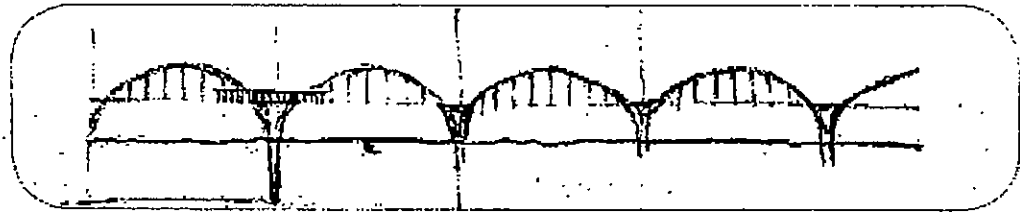
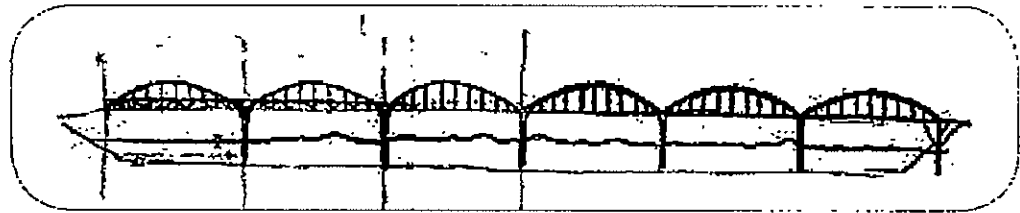
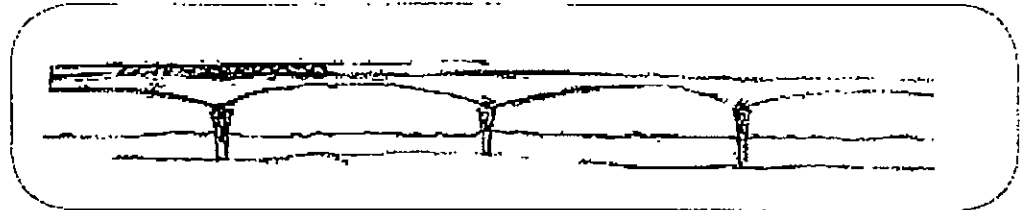
Thirty three people attended the Design Workshop and were subsequently divided into 3 groups. The focus of the workshop was on the heritage, cultural and historical elements of the bridge replacement. Participants were asked to identify: 1) the most important issue to be addressed in the replacement bridge; 2) their favorite aspect of the bridge; 3) their least favorite aspect of the bridge.

Most important issue to be addressed in the new bridge	Three lanes Connectivity	Transportation Traffic flow and connectivity	Traffic flow Maintenance costs
	Impact on the fisheries and the disturbance of the river bed	Walkways under the bridge on the north and south end to tie our walk paths together which allows pedestrians to not cross the road	Functionality with view
	Historical aspect of the existing ridge	Build for the future while looking at the past for guidance	Symmetry/profile design
	Protecting the unique and irreplaceable heritage attributes of the existing bridge as a landmark in a heritage district	Design	Unique quality of the bridge as the longest bridge of this kind with the most number of arches - tied arch concrete bow string
Favourite aspects of the bridge		Views from walking	Visually appealing and part of the community history
		Tourism, economic quality of life	Symmetry of structure
		Strength and character - 9 arches create character	Historical context and appearance of the bridge (low profile of 9 span and arch)
		Place to preserve arches	Longest structure of this type Unique construction Beautiful bridge to look at
Least favourite aspect about the bridge		Restrictive view of river	View
		Unsafe pedestrian crossing	Unsafe
		Bridge is a bottleneck	Out lived its purpose of carrying traffic
		Cables between walkway and road	Maintenance
		Width, no shoulder or separation	
		Too restrictive for today's needs	
	Safety		
	Concrete falling off the landmark		

Subsequently, each group was asked to develop design alternatives for the replacement bridge. The following is a summary of their concerns and design preferences:

a) Group Blue

- The group has the following general concerns:
  - Argyle Street Bridge is viewed as the Town's signature. It is inappropriate to erect a new bridge that has no relevance to the existing structure;
  - Sterling Street Bridge should be re-opened;
  - Grand River riverbed ownership, and Hunting and Fishing rights; and,
  - In 2008 when capacity is reached for the Argyle Street Bridge, a second crossing will be required to accommodate growth in the next 10 years. New subdivisions are being developed in the southeast quadrants of the Town, and without a second crossing, Argyle Street Bridge will become a bottleneck where traffic congestion occurs.
- The replacement bridge should have the following design attributes:
  - A design that expresses function/ structural load;
  - Arches that have structural functions; decorative arches that do not serve any structural functions are not acceptable;
  - A design that adopts the arch style, while either 6 or 9 span has historical significance;
  - Increased visibility to the Grand River;
  - A range of different materials including concrete or steel is acceptable; and,
  - Pier shapes that create a visual connection with the arches and allow visibility.
- The replacement bridge should have the following configurations:
  - The bridge be at Argyle Street roadway level to avoid substantial grading differences;
  - 3 vehicular lanes, 2 pedestrian sidewalks;
  - Pedestrian walkway separation from traffic;
  - Viewing areas;
  - Designated pedestrian crossing;
  - Provision for duct work within structure, which allow opportunities for interior decorative lighting; and,
  - At least one lane maintained for vehicular use during construction period.

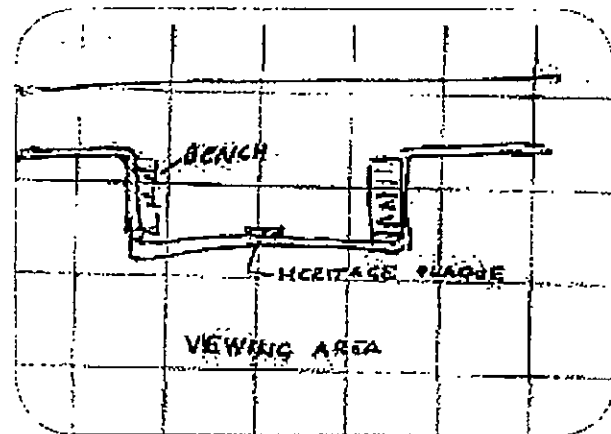
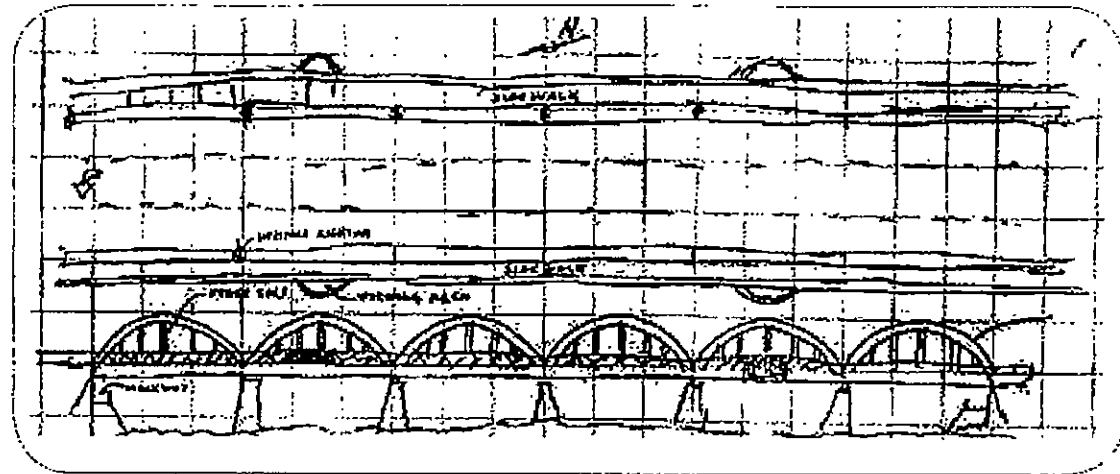


Sketches generated by Group Blue

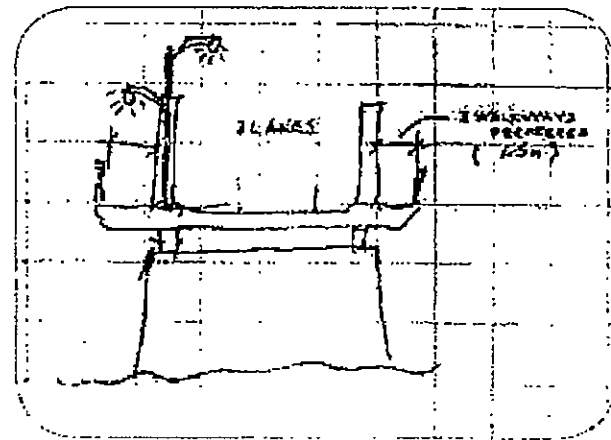
ARGYLE STREET BRIDGE REPLACEMENT STUDY  
Context Sensitive Design Workshop Summary Report  
May 2015

b) Group Yellow

1. The replacement bridge should have the following design attributes:
  - A design that references the heritage component;
  - Closer to nine span is preferable, while five or six spans is acceptable;
  - Arches in the same shape as the existing bridge;
  - Increased visibility to the Grand River;
  - A total of 4 lookout points incorporated at mid-arch locations;
  - 'Heritage Interpretive Centre' with information and plaques located at the lookout points;
  - Heritage lighting poles currently used on north Argyle Street be used on the bridge;
  - Lighting on the sidewalk and deck;
  - 3 vehicular lanes;
  - Sidewalk at a minimum of 1.5m in width;
  - Pedestrian handrails;
  - An under the bridge pathway, which would resolve the issue of pedestrian crossing on ground level; and,
  - At least one lane maintained for vehicular use during construction period.

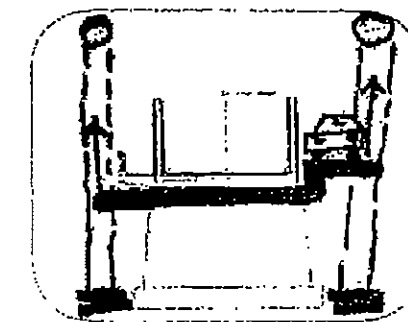
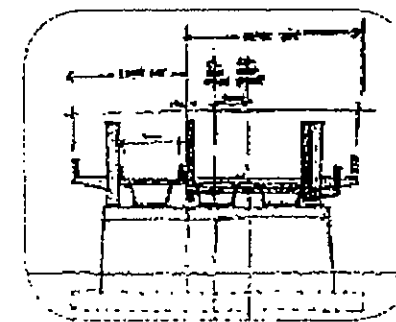


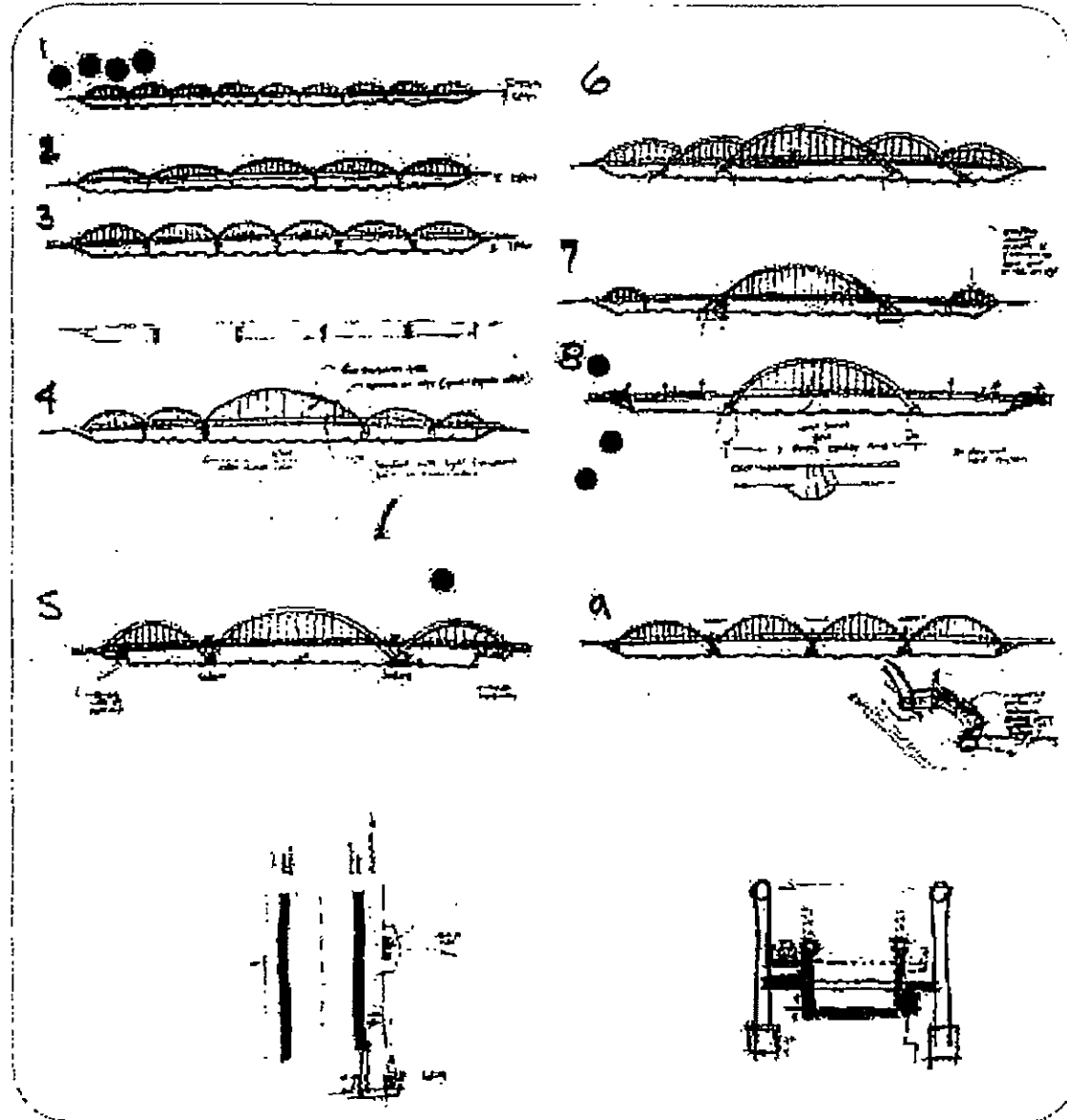
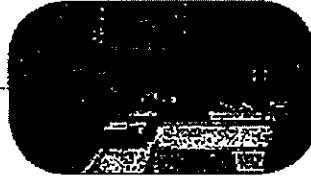
Sketches generated by Group Yellow



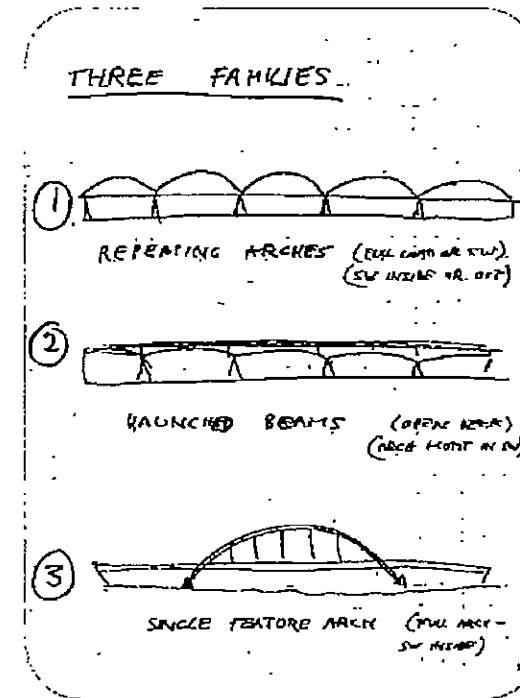
c) Group Green

1. The group has the following general concerns:
  - Need to clarify the rationale for bridge replacement vs. rehabilitation;
  - The bridge is a focal point and is visually accessible from many viewpoints;
  - The possibility of retaining arches and/or piers from the existing bridge to recognize their historic importance;
  - The possibility of incorporating a bike lane on the bridge;
  - The addition of the third lane to the bridge may speed up traffic through the town and have a detrimental effect on businesses;
  - Access to the bypass from Sterling Street would be beneficial for local traffic; and,
  - The new bridge should adopt a new name, rather than continue using "Argyle Street Bridge".
  
2. The replacement bridge should have the following design attributes:
  - A design that is spectacular, tasteful, elegant, and a signature for the community;
  - A design that is historical and preserve elements of the arch;
  - Variations of 3, 4, or 5 arches;
  - Arches that extend beyond the deck, as arches, into the river;
  - A pair of existing arches used as gateway features or incorporated as decorative elements on the bridge;
  - A more transparent structure with wider, higher archway, and cabling support;
  - A steel structure with cabling;
  - Stone clad piers;
  - 2 or 3 vehicular lanes;
  - An under the bridge pathway;
  - A barrier between the vehicles and pedestrians to avoid splashing;
  - Pre-fabricated components that allow for a shorter construction period;
  - Lighting; and,
  - Public art.





Sketches generated by Group Green



A total of 14 options were generated. The options fell within three families of bridge types:

1. Repeating arches
2. Haunched beams  
- with open deck
3. Single feature arch  
- full load carrying arch for both deck and sidewalk

Roger Dorton from Buckland & Taylor Ltd. was invited to comment on the design options regarding technical and construction matters, and the comments are summarized as follows:

1. Not all arches have a function in supporting load. Arches and piers can be pre-fabricated and installed. There is flexibility in the design of the arch, and different ways to address the main arch's curvature.
2. Arches designed to go below water are more costly and may cause more construction/ maintenance problems.
3. Pier size can be reduced in thickness and width.
4. Fewer number of piers will create lower environmental impacts.
5. Some participants preferred that the replacement bridge be the same design as the existing bridge. However, to construct the exact bridge poses construction issues. The existing bridge will need to be closed for 2 years, whereas for other options it is feasible to build around the existing bridge and allow for one lane traffic.





After each group presented their alternative bridge designs, the group as a whole was invited to evaluate the various options, identify their preferences, and raise any concerns.

*Existing bridge conditions*

1. Is MTO able to relax the requirements for the Bridge Code for this bridge?  
In evaluating the rehabilitation alternative, MTO can relax the consideration of certain dimensional requirements (e.g. lane width), but not safety considerations.
2. Who is responsible for enforcing the load restrictions?  
The Ministry's Road User Safety division is responsible for enforcement of the load restrictions on the Argyle Street Bridge. However, the Ministry also trained OPP officers to ensure further enforcement.
3. Is there a history of flooding problems?  
Not recently. We plan based on information received from the Grand River Conservation Authority for the 100-year storm event, as well as the potential for ice-damming.
4. Is there any evidence of foundation problems yet?  
Not yet, but the potential for future problems exist.
5. Is salt being used on the bridge in the winter?  
Yes

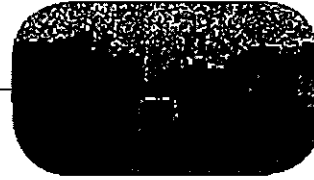
*Construction*

6. How long will it take to build?  
The length of construction period is critical. The anticipated construction period is 2 construction seasons (May to October). Preliminary staging recommendations indicate during the first year of construction, work would be performed under and beside the existing bridge with minimal disruption to both vehicular and pedestrian traffic. In the second year, a single lane of traffic and a pedestrian crossing will be provided on the portion of the new bridge constructed in year one. During year two, the existing bridge would be removed and the remainder of the new bridge constructed. Even in a short construction period, access for emergency services and pedestrians cannot be overlooked. Also, it has been noted that closing the bridge will impact businesses.
7. Is it possible to widen the existing bridge to 3 lanes?  
Currently Argyle Street and the bridge are aligned. In widening the bridge, the road will be dis-aligned, which often causes disruption to traffic flow. For the replacement bridge, the third lane addition will be to the west of the present bridge.

8. How will the 1-lane system operate?  
At this time the Ministry is recommending that traffic be single-lane in a southbound direction. Due to the length of the bridge, two-way traffic with controlling signals would result in congestion at both the north and south approach of the Argyle Street Bridge. The Ministry is working with emergency services (fire, ambulance and police) to develop an emergency services plan during construction.
9. If the proposed bridge were limited to car use only, how long would it last?  
Indefinitely, provided the bridge was properly maintained.
10. Who has been consulted outside of the immediate area?  
Primarily local contacts plus federal and provincial agencies. MTO will expand the contact list to include other heritage organizations.

*Cultural Landscape*

11. The bridge is viewed from many vantage points. One moves through the landscape and experiences it. It is important to look at the wider context, the visual impact from various locations. Is the Ministry planning to undertake a cultural landscape assessment?  
Yes.
12. Most designs suggest a theme of repeating arches, which indicated a strong preference for historical reference in the replacement bridge.
13. Elements of the bridge can be relocated to be used as interpretive features in parks, or as gateway features at the north and south entry points to the Town.
14. In the final report, it is important to clearly outline the reasons why the replacement is recommended option.
15. There are 2 main concerns: ambulance and fire access, and impact to local businesses. Has the issue of short-term vs. long term accessibility been explored?  
The Ministry is working with emergency services (fire, ambulance and police) to develop a plan for emergency services during construction. Since the last public information centre, the Ministry has developed alternatives that provide both vehicular and pedestrian crossings at the existing location during construction.



*Decision to adopt a replacement bridge*

16. Why did the County decide on replacement rather than rehabilitation?

It is the Ministry's intention to transfer the Argyle Street Bridge to Haldimand County following the works completed under this project. The Ministry provided the bridge replacement recommendation to Haldimand County Council, and based on the information provided by the Ministry and future rehabilitation and/or replacement costs, Haldimand County Council agreed with the recommendation to replace the bridge.

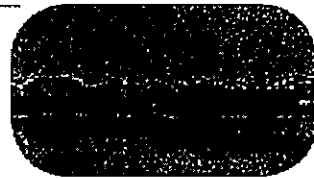
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*MTD Conclusions: Next Steps*

Subsequent to the Design Workshop, the Ministry of Transportation identified the next steps:

- Second Public Information Centre (PIC) is tentatively scheduled for June 2005. However, if there is scheduling conflicts, the PIC will be hosted after September 2005.
- 3D video renderings of the preferred bridge replacement alternatives will be generated for presentation at the second PIC.
- A Pre-PIC private session will be held for the Context Sensitive Design Workshop participants to review the evaluation of the workshop alternatives and to view and discuss the PIC presentation materials.
- It is anticipated the preliminary design and environmental assessment will be completed in late 2005. At this time a Transportation Environmental Study Report will be prepared and made available for a 30-day public review period, which will be announced in local newspaper and through letters and to all parties on the Ministry's mailing list.

Appendix 1 - Design Workshop Agenda  
April 18 - 19, 2005



**ARGYLE STREET BRIDGE REPLACEMENT  
Design Workshop**

Royal Canadian Legion, Caledonia  
29 Caithness Street East

April 18 and 19, 2005

**April 18, 2005 7:00 pm - 9:00 pm**  
**Kick off presentation**

- 7:00 pm Welcome  
*Michael Plant, Manager of Operational Services, Ministry of Transportation*
- 7:05 pm Introductions of all workshop participants
- 7:15 pm Ministry of Transportation Commitment  
*Jennifer Graham Harkness, Head of Planning and Design, Ministry of Transportation*
- 7:20 pm Description of the purpose of the workshop  
*Donna Hinde, The Planning Partnership*
- 7:30 pm Overview of the project and work completed to date  
*Edward Li, Morrison Hershfield*
- 7:40 pm Description of the conditions of the Argyle Street bridge  
*Edward Li, Morrison Hershfield*
- 7:50 pm Understanding of existing conditions
- environmental assessment process  
*Paul Draycott, Draycott Environmental Inc.*
  - overall description of natural features,  
*Paul Draycott, Draycott Environmental Inc.*
  - community context and Ontario Heritage Bridge program  
*Mary MacDonald, Archaeological Services Inc.*
- 8:05 pm Bridge Types  
*Roger Dorton, Buckland and Taylor Ltd.*
- 8:15 pm Basic principles of bridge aesthetics  
*Mark Langridge, duToit Allsopp Hillier*
- 8:30 pm Questions  
*Donna Hinde, The Planning Partnership*
- 8:50 pm Wrap up  
*Donna Hinde, The Planning Partnership*

**April 19, 2005 8:30 am to 4:00 pm**  
**Workshop**

- 8:00 am Consulting team/Client Set up
- 8:30 am Welcome, summary of previous day  
*Donna Hinde, The Planning Partnership*
- 8:45 am Haldimand County Council Resolution  
*Tanya Cross, Project Manager, Ministry of Transportation*
- 9:00 am Parameters for bridge design  
*Edward Li, Morrison Hershfield*
- 9:15 am Introduction of possible themes of bridge design  
*Mark Langridge, duToit Allsopp Hillier*  
*Roger Dorton, Buckland & Taylor Ltd.*
- BREAK
- 9:45 am Form small groups of 7-10 people  
Each group will be led by a member of the Ministry of Transportation or consulting team  
Each group will develop bridge design concepts considering:
- location of sidewalks
  - traffic staging
  - heritage features
- 11:30 am Over lunch, pin up all design concepts from each group for review and discussion with the entire workshop group
- 1:00 pm Re-group in small groups to refine and further develop preferred concepts
- 2:30 pm Reconvene as a large group to review and discuss preferred concepts
- 3:30 pm Wrap up and next steps  
*Donna Hinde, The Planning Partnership*
- 4:00 pm Close  
*Michael Plant and Tanya Cross, Ministry of Transportation*

Appendix 2 - List of Study Team Members



A.2.0

List of Study Team Members

The following is the list of Ministry of Transportation and consultant team members:



- |  |   |
|--|---|
| <p>a) Ministry of Transportation</p> <ul style="list-style-type: none"> <li>• Christopher Balasa, P.Eng<br/>Project Engineer<br/><i>Planning &amp; Design Section</i></li> <li>• Tanya Cross, P.Eng.<br/>Project Manager<br/><i>Planning &amp; Design Section</i></li> <li>• Jennifer Graham Harkness, P.Eng<br/>Head Planning &amp; Design<br/><i>Planning &amp; Design Section</i></li> <li>• Charlton Carscallen<br/>Regional Archaeologist<br/><i>Environmental Services Section</i></li> <li>• Penny Young<br/>Regional Archaeologist<br/><i>Environmental Services Section</i></li> <li>• Susan Wagter<br/>Environmental Planner<br/><i>Environmental Unit</i></li> <li>• Nick Close, BLA<br/>Principal Landscape Architect<br/><i>Maintenance Office</i></li> <li>• Michael Plant, P.Eng.<br/>Manager, <i>Operational Services</i></li> <li>• Conor Byrne<br/><i>Transportation Section</i></li> <li>• Wade Young, P.Eng.<br/>Head Structural Section<br/><i>Transportation Section</i></li> <li>• Iqbal Husain, P.Eng.<br/>Head Design Engineer<br/><i>Transportation Section</i></li> </ul> | <p>b) Consultant Teams</p> <ul style="list-style-type: none"> <li>• Edward Li, M.I.C.E., P. Eng.<br/>Project Manager<br/><i>Morrison Hershfield Limited</i></li> <li>• Chak Lo, P.Eng.<br/><i>Morrison Hershfield Limited</i></li> <li>• Jim Weir, P.Eng.<br/><i>Morrison Hershfield Limited</i></li> <li>• Josephine Yung, P.Eng.<br/><i>Morrison Hershfield Limited</i></li> <li>• Roger A. Dorton, CM, Ph.D., P.Eng<br/>Bridge Engineering, <i>Buckland &amp; Taylor Ltd.</i></li> <li>• Paul Draycott<br/>Environmental Consultants<br/><i>Draycott Environmental Inc.</i></li> <li>• Mark Langridge, OAA, ANZIA, LEED<br/>Heritage Architect<br/><i>duToit Architects Limited</i></li> <li>• Mary L. MacDonald, MA<br/>Heritage Consultant<br/><i>Archaeological Services Inc.</i></li> <li>• Donna Hinde, BES, MLA<br/>Partner, <i>The Planning Partnership Limited</i></li> <li>• Carman Lam, MCIP RPP<br/>Planner, <i>The Planning Partnership Limited</i></li> </ul> |
|--|---|

Appendix 3 - Ministry of Transportation  
Invitation Letter



Ministry of Transportation

Engineering Office  
Planning and Design Section  
Southwestern Region

659 Exeter Road  
London, Ontario N6E 1L3  
Telephone: (519) 873-4555  
Facsimile: (519) 873-4600

Ministère des Transports

Bureau du génie  
Section de planification et de conception  
Région du Sud-Ouest

659, chemin Exeter  
London (Ontario) N6E 1L3  
Téléphone: (519) 873-4555  
Télécopieur: (519) 873-4600



April 12, 2005

500 Winniett Street  
Caledonia, ON  
N3W 1E4

Dear Mr. Henning:

RE: Argyle Street Bridge Replacement, Caledonia  
Background information in preparation for the workshop on April 18 and 19th, 2005

The Ministry of Transportation would like to take this opportunity, in advance, to thank you for your participation in the Argyle Street Bridge Workshop.

The purpose of the workshop is to establish a common understanding of existing conditions of the bridge and surrounding area, and to explore heritage options to be considered for the design of the new bridge.

Please find attached some background information for your review in preparation for the workshop. The package includes:

- the agenda;
- background information;
- list of participants;
- a map; and,
- the Heritage Bridge Assessment.

As you will note on the attached agenda, the workshop begins on April 18 with a "kick-off" presentation. Attendance at the "kick-off" presentation is very important as the information presented will establish the groundwork for the workshop on April 19<sup>th</sup>.

If you have not already done so, please confirm your attendance by April 15 with Donna Hinde:

Phone: 416-975-1556 Ext. 24  
Fax: 416-975-1580  
Email: [dhinde@planpart.ca](mailto:dhinde@planpart.ca)

We look forward to seeing you at the workshop.

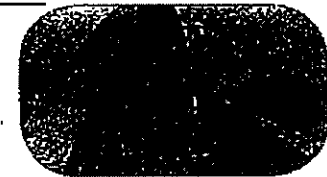
Sincerely,

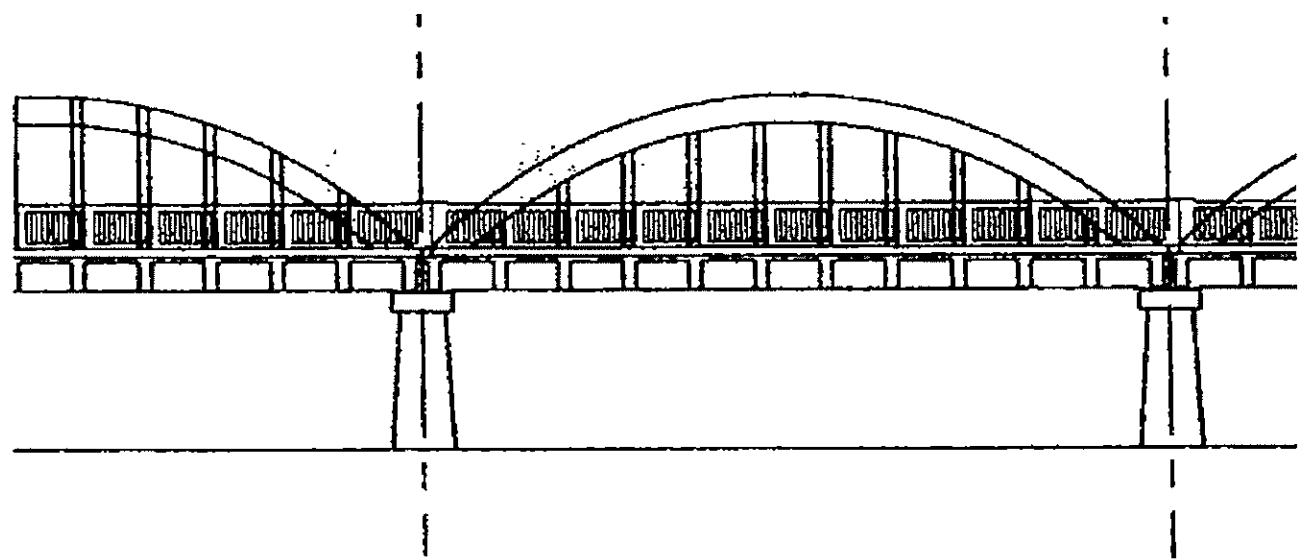
A handwritten signature in black ink, appearing to read "Tanya Cross".

Tanya Cross, P. Eng  
Project Engineer

Cc: Michael Plant

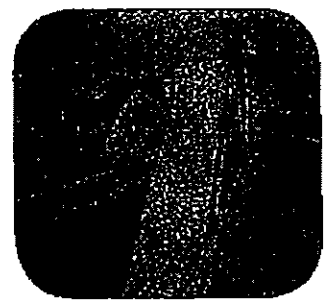
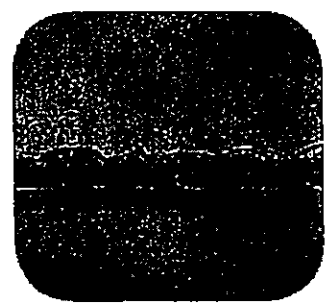
Appendix 4 - Background Information Package





for

April 18 & 19, 2005  
Caledonia, Ontario



BACKGROUND INFORMATION

1.0	<i>The Existing Argyle Street Bridge</i>	1
2.0	<i>Preliminary Design and Environmental Assessment Study</i>	2
3.0	<i>Project Progress</i>	3
4.0	<i>Context Sensitive Design Workshop</i>	6
5.0	<i>Next Steps</i>	8

APPENDICES

- A *For More Information Contact*
- B *List of Participants*
- C *Ministry of Transportation & Consulting Team Members*
- D *Heritage Bridge Impact Assessment*

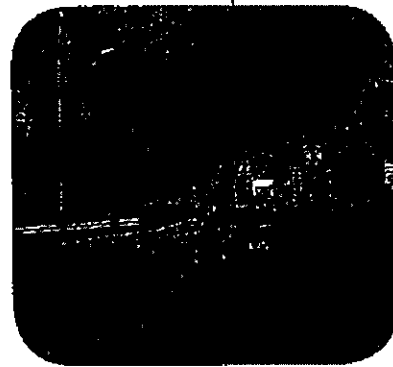
The existing Argyle Street Bridge is a 200m long, nine span concrete bowstring arch bridge providing a connection over the Grand River between the business district and residential areas, in the Village of Caledonia, Municipality of Haldimond County.

The existing bridge, constructed in 1927, is the third bridge to be constructed at this crossing. The first bridge constructed at this location was a timber bridge erected in 1842 and the second a five span iron bridge erected in 1875.

During construction of the bridge in 1875, a red and buff brick Gothic revival house was built for the new bridge's toll keeper.

The Argyle Street Bridge is listed as a heritage bridge in the Ontario Heritage Bridge Program and is one of three bridges, of similar construction, built in Ontario during the mid to late 1920's. In addition, the bridge crosses the Grand River which is recognized as a National Heritage River.

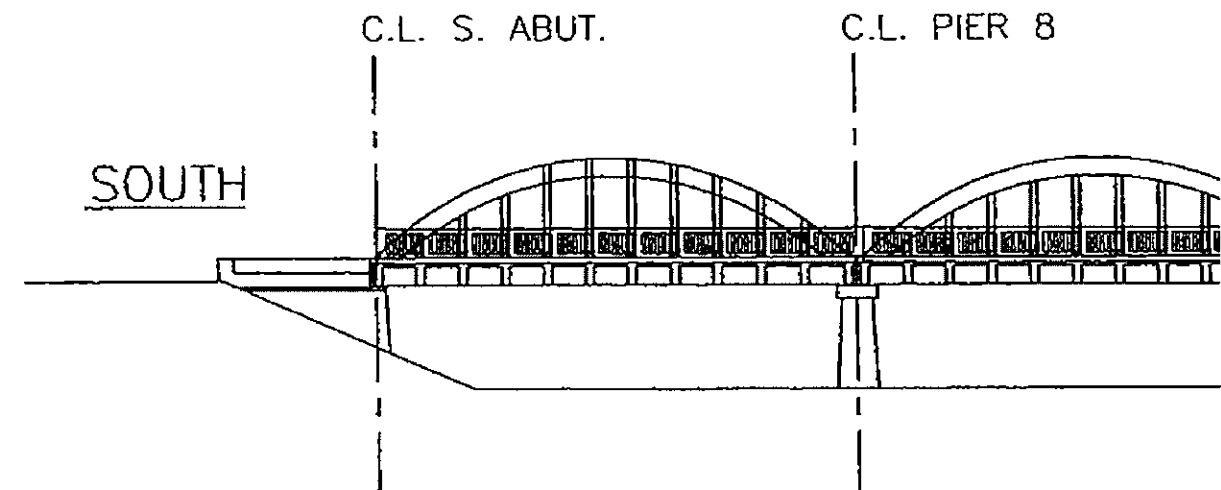
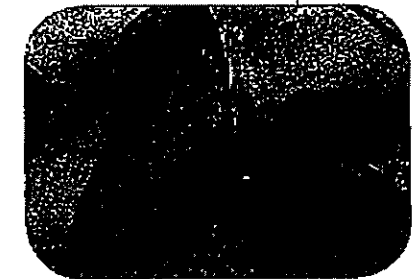
Due to the condition of the bridge, in Spring 2002, the Ministry of Transportation (MTO) was required to post load restrictions for vehicles crossing the bridge.



In the fall of 2002, MTO retained Morrison Hershfield to carry out a Preliminary Design and Environmental Assessment study for the Argyle Street Bridge. The purpose of the study is to investigate and propose a solution(s) for the rehabilitation or replacement of the bridge, as well as traffic management during construction.

This project is being conducted in accordance with the requirements for Group 'B' projects under the Class Environmental Assessment for Provincial Transportation Facilities (2000).

The completion of the Preliminary Design and Environment Assessment Study will enable the project to proceed to the Detailed Design stage.





#### Fall 2002 to June 2003

The project team gathered information, and consulted with stakeholders and the public to obtain input on rehabilitation/replacement alternatives of the existing bridge. The public was notified of the commencement of the project via local newspaper advertisements in the fall of 2002, and was invited to provide comments. Stakeholders identified by the project team were individually sent a notification letter inviting input.

Meetings were held with key stakeholders beginning January, 2003 and are expected to continue until the completion of the project.

The following is a summary of meetings between the project team and various stakeholders prior to the first Public Information Centre:

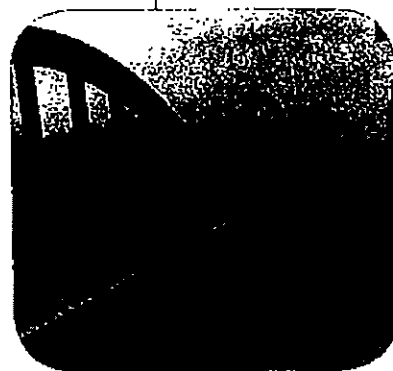
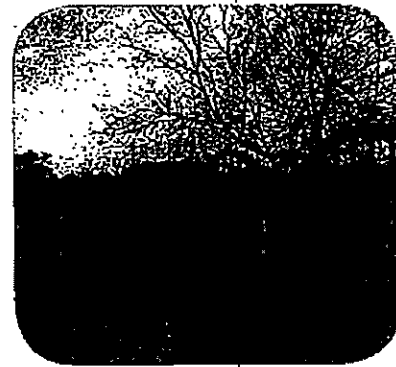
Haldimand County staff  
*January 31, 2003*

Mississaugas of the New Credit First Nation Council  
*March 4, 2003*

Six Nations Council  
*March 4, 2003*

Caledonia Chamber of Commerce (CRCC)  
*March 6, 2003*

Haldimand County staff  
*June 20, 2003*



Discussions with the Grand River Conservation Authority, Ministry of Culture and other stakeholders were also held to identify concerns and solicit input.

Through this process the project team identified and evaluated the rehabilitation and preliminary replacement alternatives and determined the preliminary engineering recommendation was to replace the bridge. Bridge replacement was recommended due to the condition of the existing bridge and to reduce future maintenance and rehabilitation costs.

Public Information Centre #1 – June 23, 2003  
The project team presented the Argyle Street Bridge replacement recommendation and the proposed traffic detours during construction of the new bridge. At that time, it was recommended the river crossing on Argyle Street be closed to both pedestrian and vehicular traffic during construction, and vehicular traffic would be detoured to the Highway 6 By-Pass. Comments received from the Public Information Centre identified the following concerns:

- Loss of the bridge, a landmark and heritage feature in Caledonia and on the Grand River;
- Loss of access for vehicles, pedestrians and emergency services across the Grand River on Argyle Street during construction;
- Disruption to businesses on Argyle Street due to bridge closure; and
- Environmental impacts.

#### June 23, 2003 to Present

A formal presentation of the findings of the first Public Information Centre was made to the Haldimand

County Council on August 5, 2003. Formal Council response including a number of questions was received on August 11, 2003, and Ministry responded to the questions on April 19, 2004.

Based on comments received from the Public Information Centre, the project team continued to develop a number of bridge replacement and construction staging alternatives to address both the engineering requirements and stakeholder/public concerns.

The project team continued to liaise with stakeholders to obtain input on the bridge replacement and traffic staging alternatives, including a meeting with members of the Chamber of Commerce and Business Improvement Association on October 22, 2003 on issues related to traffic over the river during construction of the replacement bridge.

In August 2004, Haldimand County passed the following council resolutions:

1. Haldimand County agrees in principle, based on current information provided by the Ministry of Transportation, to a replacement bridge at the same location as the existing bridge;
2. Haldimand County agrees that the structure should include heritage features if a replacement bridge is the Ministry's recommended option;
3. Haldimand County prefers a three lane cross section for the proposed structure if a replacement structure is selected;
4. Haldimand County does not intend to carry out a separate Environmental Assessment (EA) for the project;

5. Haldimand County does not propose to cost share the full cost difference with MTO on a widened structure;
6. The detour alternatives proposed to date are not satisfactory to Haldimand County and MTO should research further options, including utilization of a widened structure as a detour during the construction phase."

A number of meetings have been held with the Haldimand County to identify and agree on various requirements. These include:

- A meeting with Haldimand County on May 28, 2004.
- Presentation to Haldimand County Grand River Advisory Committee on November 4, 2004.
- Meeting with County staff on January 17, 2005.
- Meeting with County staff on March 8, 2005 on Emergency Medical Services (EMS) issues.
- Meeting with County staff, EMS from Haldimand and adjacent municipalities, OPP, on March 29, 2005 on traffic management issues pertaining to provision of emergency services to Caledonia residents during construction of the bridge.

The project team has developed bridge replacement alternatives to address concerns identified by the public and the stakeholders. However, due to the heritage, cultural and historical significance the existing bridge provides in shaping the community's identity, the project team is requesting additional input from the community to help the heritage component for a new bridge.

#### Date, Time and Venue

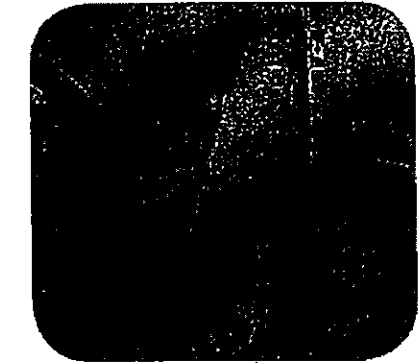
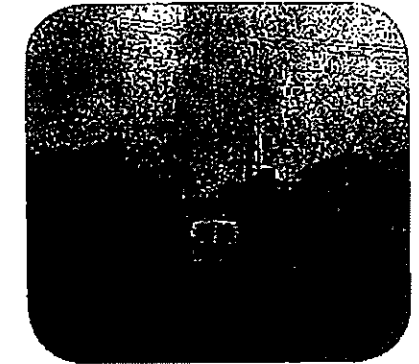
The workshop will be held in the Village of Caledonia at the Legion Hall at Caithness Street. It will comprise a kick-off session from 7:00 p.m. to 9:00 p.m., Monday, April 18, 2005, and the workshop from 8:30 a.m. to 4:00 p.m., Tuesday, April 19, 2005.

#### The Context Sensitive Design Workshop

The Context Sensitive Design Workshop will use a process aimed at gaining community support for the design of the bridge. Participants reflecting a range of interests are invited. Using a collaborative, interdisciplinary process, all of the participants will be encouraged to work together to arrive at solutions for the design of the bridge.

The project team understands a range of local interests will greatly assist in development of various heritage bridge replacement alternatives that meet the community's needs. For this reason, the Ministry of Transportation is hosting the Design Workshop where participants from a broad spectrum of stakeholders and the public will work with the engineering design team to develop, review and evaluate the heritage component of the structure replacement.

Although the focus of the workshop will be on the heritage, cultural and historical elements of the bridge replacement, discussions about sidewalk location and construction traffic staging will also be discussed in the workshop.



### Guiding Principles

To assist in the development of a heritage component for the bridge replacement, the project team has identified the following 5 guiding principles to be the basis for the workshop:

1. The bridge will be replaced.  
A new bridge designed to meet current structural and highway standards will be built to replace the existing bridge at more or less the existing position. Foundation issues and hydraulic deficiencies will be corrected when the structure is replaced.
2. The new bridge will be a 5 or 6 span bridge, with 4 or 5 piers in the river, and abutments located on the banks of the river.  
The selection of the bridge span layout is based on cost-effectiveness of the structural system, improved river hydraulics and to provide staged traffic over the river during construction.
3. The bridge will carry 2 or 3 traffic lanes  
The number of traffic lanes will be subject to cost sharing agreement between the Ministry and the County. Alternatives developed during the workshop should address both two lane and three lane cross sections.
4. The construction of the bridge will be staged, so that vehicular and pedestrian traffic over the Grand River will be provided at all times during the construction of the replacement bridge.
5. The bridge replacement will provide for, at minimum, a sidewalk on one side of the bridge.

### Workshop Participants

The workshop will be facilitated by Donna Hinde, a professional with over 25 years of experience, who specializes in facilitating the involvement of stakeholders in physical planning projects. Donna has facilitated many workshops for significant projects such as roads, new communities, downtown re-

talization waterfront regeneration and parks that have assisted residents in communities across the Province to participate in the design process.

Donna will be joined by the following experts, who will be available to provide technical expertise to the participants throughout the workshop:

- Structural Engineers from MTO and Morrison Hershfield;
- Highway Design Engineers from MTO and Morrison Hershfield;
- Environmental Planners from MTO and Draycott Environmental Inc.;
- Aesthetics Engineer from Buckland and Taylor Ltd.;
- Heritage Architect from du Toit Architects Limited;
- Heritage and Archaeology Planner from the Ministry; and,
- Heritage Consultant from Archaeological Services Inc.

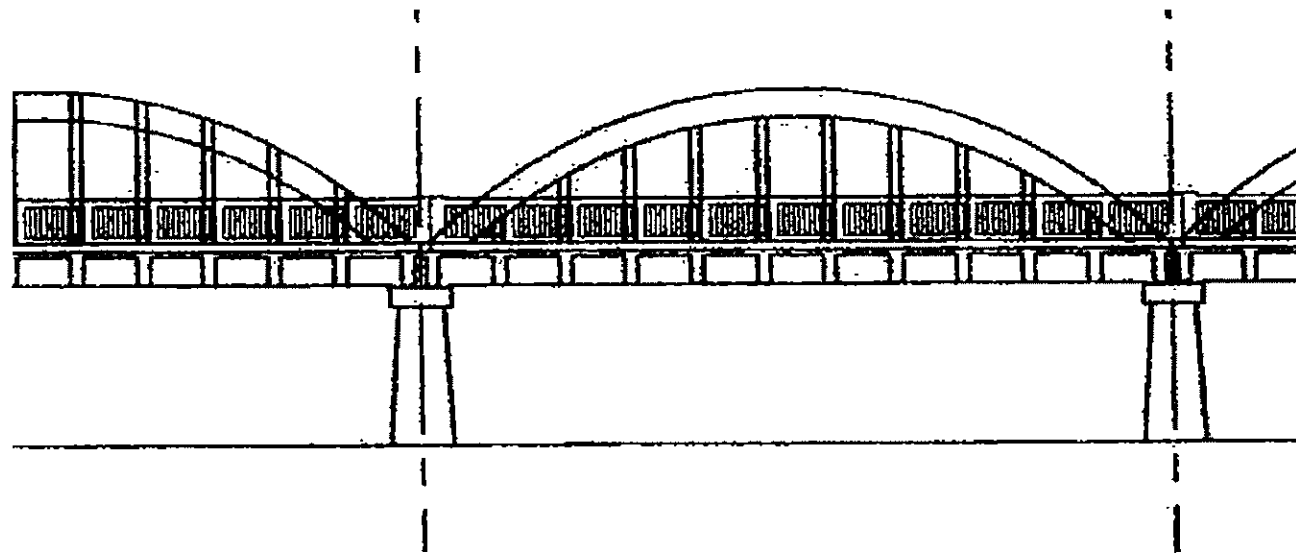
Participants invited to the workshop include:

- Ministry of Culture;
- Grand River Conservation Authority;
- Parks Canada;
- Haldimand County;
- Mississaugas of the New Credit First Nation;
- Six Nations Confederacy;
- Six Nations;
- Local Historical Society;
- Municipal Heritage Committee;
- Caledonia Chamber of Commerce;
- Caledonia Business Improvement Association; and,
- 3 citizen representatives.

Councillor Ashbaugh and other elected officials will attend as observers.

A workshop summary will be prepared and distributed to workshop participants. Workshop participants will be invited to a special session at the Public Information Centre. The Ministry's project team will present the recommendations that come in part from the workshop, at the second Public Information Centre, tentatively scheduled for June 2005.

*For More Information Contact*



**ARGYLE STREET BRIDGE REPLACEMENT**

Workshop  
Royal Canadian Legion, Caledonia  
April 18 and 19, 2005

For further information please contact

**Tanya Cross, P. Eng**  
Project Manager  
Planning and design Section  
Southwestern Region  
Ministry of Transportation  
659 Exeter Road  
London, Ontario  
N6E 1L3

Telephone 519-873-4555  
Toll free 1-800-265-6072

Fax 519-873-4600

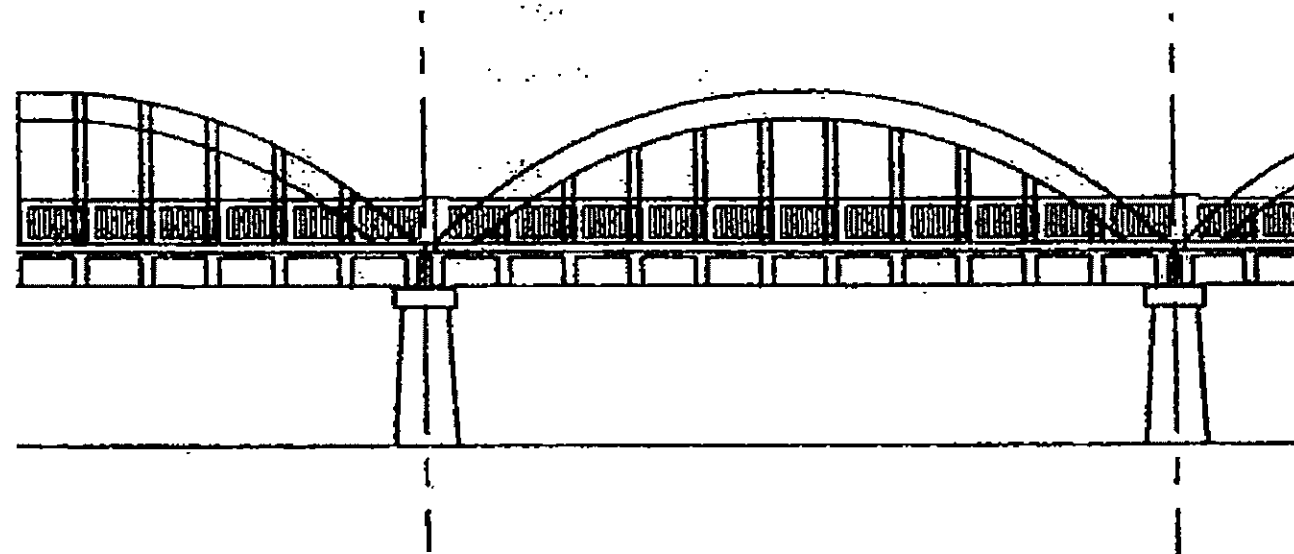
Email tanya.cross@mto.gov.on.ca

**Edward Li, M.I.C.E., P.Eng**  
Project Manager  
Morrison Hershfield Limited  
Suite 600  
235 Yorkland Blvd.  
Toronto, Ontario  
M2J 1T1

Telephone 416-499-3110  
Fax 416-499-9658  
Email eli@morrisonhershfield.com

APPENDIX B

List of Participants



ARGYLE STREET BRIDGE REPLACEMENT  
Design Workshop

Royal Canadian Legion, Caledonia

CONTACT LIST

a) First Nations

Jo-Ann Greene, Director, Lands Research  
Six Nations Council  
1695 Chiefswood Road  
PO Box 5000  
Ohsweken, Ont. N0A 1M0

Paul General, Manager  
Six Nations Eco Centre  
PO Box 5000  
Ohsweken, Ontario N0A 1M0

David General, Chief  
Six Nations Eco Centre  
PO Box 5000  
Ohsweken, Ontario N0A 1M0

M. Bryan LaForme, Chief  
Mississaugas of the New Credit First Nation  
R.R.#6, Hagersville,  
Ontario, Canada, N0A 1H0

Tom Deer,  
Six Nations, Confederacy Secretary  
2634 Sixth Line  
RR#2 Ohsweken  
Ontario  
N0A 1M0

b) Interest Groups

Bob Chisholm, President  
Caledonia Region Chamber of Commerce  
C/o 282 Argyle Street  
Caledonia, Ont  
N3W 1K8

Don Smith  
Caledonia Business Improvement Association  
42 Jamieson Drive  
Caledonia, Ontario  
N3W 2K6

Carol Ritchie  
**Tourism Caledonia**  
1 Grand Trunk Lane, P.O. Box 2035  
Caledonia, Ontario M3W 2G6

Cathy Masterson  
Acting Curator,  
**Edinburgh Square Heritage & Cultural Centre**  
80 Caithness St, P.O. Box 2056  
Caledonia, ON N3W 2G6  
Phone (905) 765-3134

Maria Adams, Chair  
**LACAC Chairperson**  
Town of Haldimand  
P.O. Box 400,  
45 Munsee Street  
Cayuga, ON N0A 1E0

**c) Federal/Provincial Government**

Barbara Veale  
**Grand River Conservation Authority**  
400 Clyde Road, PO Box 729  
Cambridge, Ontario N1R 5W6

Max Finkelstein  
**Heritage Rivers Section - Parks Canada**  
**National Parks Directorate**  
4<sup>th</sup> Floor  
25 Eddy Street  
Gatineau, Quebec K1A 0M5

Ross Thomson  
**Southwest Ontario Field Unit**  
**Parks Canada**  
Bruce Peninsula National Park  
P.O. Box 189  
Tobermory, Ontario N0H 2R0

Marilyn Miller or Fred Cane  
**Ministry of Culture**  
400 University Avenue, 4th Floor  
Toronto, Ontario M7A 2R9

Wendy Whitfield, Curator  
**Haldimand-Norfolk Museum Archives**  
8 Echo Street  
P.O. Box 38  
Cayuga, Ontario N0A 1E0

**d) Municipality**

Dave Anderson, Manager Engineering and Infrastructure Division  
**Haldimand County**  
282 Argyle Street South  
Caledonia Ontario N3W 1K7

Lloyd Rollinson, Supervisor, Engineering and Infrastructure Division  
**Haldimand County**  
282 Argyle Street South  
Caledonia Ontario N3W 1K7

Steve Miazga  
General Manager, Planning and Economic Development Department  
**Haldimand County**  
45 Munsee Street North  
PO Box 400  
Cayuga, Ontario, N0A 1E0

Michael Pullen, Manager Tourism Division  
**Haldimand County**  
45 Munsee Street North  
PO Box 400  
Cayuga, Ontario, N0A 1E0

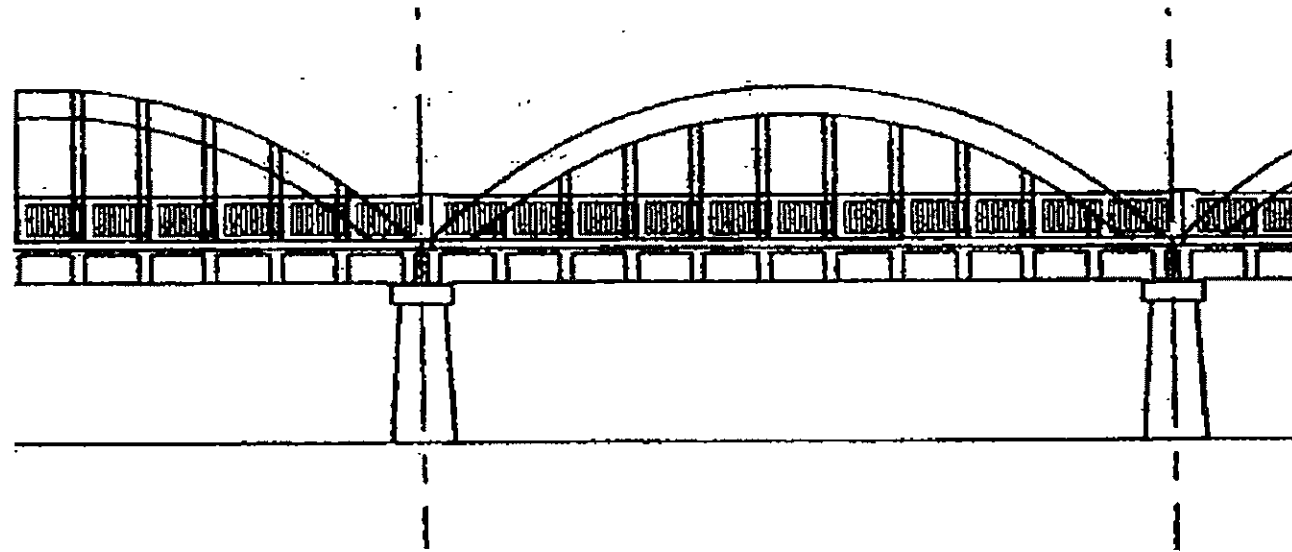
Tony Gzik, Economic Development Officer  
**Haldimand County**  
45 Munsee Street North  
PO Box 400  
Cayuga, Ontario, N0A 1E0

**Grand River Advisory Committee**  
**Haldimand County**  
45 Munsee Street North  
PO Box 400  
Cayuga, Ontario, N0A 1E0

**e) Others**

Three residents  
Elected officials attending as observers

Ministry of Transportation &  
Consulting Team Members



**ARGYLE STREET BRIDGE REPLACEMENT**  
Workshop  
Contact List - Ministry of Transportation

Ministry of Transportation Planning & Design Section 659 Exeter Road, 3 <sup>rd</sup> Floor London, ON N6E 1L3 <b>Jennifer Graham Harkness, P.Eng</b> Head, Planning and Design jennifer.grahamharness@mto.gov.on.ca (519) 873-4561	Ministry of Transportation Planning & Design Section 659 Exeter Road, 3 <sup>rd</sup> Floor London, ON N6E 1L3 <b>Tanya Cross, P.Eng.</b> Project Manager tanya.cross@mto.gov.on.ca (519) 873-4555
Ministry of Transportation Planning & Design Section 659 Exeter Road, 3 <sup>rd</sup> Floor London, ON N6E 1L3 <b>Christopher Balasa, P.Eng</b> Project Engineer christopher.balasa@mto.gov.on.ca (519) 873-4589	Ministry of Transportation Operational Services 659 Exeter Road, 1 <sup>st</sup> Floor London, ON N6E 1L3 <b>Michael Plant, P.Eng.</b> Manager, Operational Services michael.plant@mto.gov.on.ca (519) 873-4208
Ministry of Transportation Environmental Unit 659 Exeter Road, 4 <sup>th</sup> Floor London, ON N6E 1L3 <b>Susan Wagter</b> Environmental Planner susan.wagter@mto.gov.on.ca (519) 873-4557	Ministry of Transportation Environmental Services Section 3 <sup>rd</sup> Floor, Building D 1201 Wilson Avenue Downsview, ON M3M 1J8 <b>Penny Young</b> Regional Archaeologist penny.young@mto.gov.on.ca (416) 235-5541
Ministry of Transportation Environmental Services Section 3 <sup>rd</sup> Floor, Building D 1201 Wilson Avenue Downsview, ON M3M 1J8 <b>Charlton Carscallen</b> Regional Archaeologist c/o Penny Young charlton.carscallen@utoronto.ca (416) 235-5541	Ministry of Transportation Maintenance Office 2 <sup>nd</sup> Floor, Garden City Tower 301 St. Paul Street St. Catharines, ON L2R 7R4 <b>Nick Close, BLA</b> Principal Landscape Architect nick.close@mto.gov.on.ca (905) 704-2229
Ministry of Transportation Transportation Section Southwestern Region 659 Exeter Road, 4 <sup>th</sup> Floor London, ON N6E 1L3 <b>Wade Young, P.Eng.</b> Head Structural Section wade.young@mto.gov.on.ca (519) 873-4337	Ministry of Transportation Transportation Section Head Office 2 <sup>nd</sup> Floor, Garden City Tower 301 St. Paul Street St. Catharines, ON L2R 7R4 <b>Iqbal Husain, P.Eng.</b> Head, Design Engineer iqbal.hussain@mto.gov.on.ca (905) 704-2376

**ARGYLE STREET BRIDGE REPLACEMENT**

**Workshop**

**Contact List - Consulting Team**

<p>Morrison Hershfield Limited 235 Yorkland Boulevard, Ste. 600 Toronto, ON M2J 1T1 <b>Edward Li, M.I.C.E., P. Eng.</b> Project Manager eli@morrisonhershfield.com Phone: (416) 499-3110 Fax: (416) 499-9658</p>	<p>Morrison Hershfield Limited 235 Yorkland Boulevard, Ste. 600 Toronto, ON M2J 1T1 <b>Chak Lo, P.Eng.</b> clo@morrisonhershfield.com Phone: (416) 499-3110 Fax: (416) 499-9658</p>
<p>Morrison Hershfield Limited 235 Yorkland Boulevard, Ste. 600 Toronto, ON M2J 1T1 <b>Josephine Yung, P.Eng.</b> jyung@morrisonhershfield.com Phone: (416) 499-3110 Fax: (416) 499-9658</p>	<p>Morrison Hershfield Limited 235 Yorkland Boulevard, Ste. 600 Toronto, ON M2J 1T1 <b>Jim Weir, P.Eng</b> jweir@morrisonhershfield.com Phone: (416) 499-3110 Fax: (416) 499-9658</p>
<p>The Planning Partnership Limited 1255 Bay Street, Ste. 201 Toronto, ON M5R 2A9 <b>Donna Hinde, BES, MLA</b> Partner dhinde@planpart.ca Phone: (416) 975-1556 Ext. 24 Fax: (416) 975-1580</p>	<p>Draycott Environmental Inc. <i>Environmental Consultants</i> 2310A Bloor Street West Toronto, ON M6S 1P2 <b>Paul Draycott</b> paul.draycott@draycottgroup.ca Phone: (416) 762-8586 Fax: (416) 762-2342</p>
<p>Buckland &amp; Taylor Ltd. Bridge Engineering 34 Kingland Crescent Toronto, ON M2J 2B7 <b>Roger A. Dorton, CM. Ph.D., P.Eng</b> roger.dorton@sympatico.ca (416) 502-8033</p>	<p>duToit Allsopp Hillier 50 Park Road Toronto, ON M4W 2N5 <b>Mark Langridge, OAA, ANZIA, LEED</b> mlangridge@dtah.com Phone: (416) 968-9479 Fax: (416) 968-0667</p>
<p>Archaeological Services Inc. 528 Bathurst Street Toronto, ON M5S 2P9 <b>Mary L. MacDonald, MA</b> archaeology@sympatico.ca (416) 966-1069</p>	