



To: Mayor and Council

From: Paul McMunn C.E.T. Director of PW and Utilities

Date: March 22, 2023

Committee of the Whole Date: March 27, 2023

Title: Confederation Bridge – Parks Canada Discussion Update

☒ For Direction

☐ For Information

☒ For Adoption

☒ Attachment (9 pages)

**Recommendation: THAT Council of the Corporation of the Town of Smiths Falls approve the location of a new pedestrian bridge in the current location of the existing Confederation Drive River Crossing;**

**AND FURTHER THAT Council direct staff to advance the Confederation Drive River Crossing project to the detailed design phase for a pedestrian bridge application as presented in Committee of the Whole Report #2023-045.**

### **Purpose:**

The purpose of this report is to seek direction from Council with respect to the selection of the preferred location for a pedestrian crossing to allow staff to advance the bridge replacement project to the detailed design stage. The report also serves to update Council of recent discussions with Parks Canada representatives with respect to potential opportunities to incorporate an accessible and compliant river crossing onto their existing walkway or dam.

### **Background:**

At the Special Committee of the Whole meeting held on January 16, 2023, Council received Report #2023-008 (Attachment 1). That report sought direction from Council to proceed with the following:

1. publish the Notice of Study Completion for the Municipal Class Environmental Assessment
2. endorse Preferred Alternative No.4 - Replacement of Confederation Drive River Crossing with a new vehicle and/or pedestrian bridge under the Municipal Class Environmental Assessment Study
3. endorse the Preferred Design Option - Replacement of Confederation Drive River Crossing with a Pedestrian Bridge

Council approved the aforementioned three recommendations however; there was the following caveat from Resolution Number 2023-01-22 (Attachment 2 for full resolution):

**AND THAT Council direct staff to pursue opportunities with Parks Canada to enhance their current river crossing structure that would permit pedestrian and bicycle traffic as an option**

## Analysis and Options:

As per Councils direction, Malcolm Morris (CAO) and Paul McMunn (Director of Public Works & Utilities) met with Parks Canada representatives Susan Millar (Planner – Ontario Waterways), Dean Hamilton (Asset Manager/Senior Engineer) and Mark Brus (Manager of Operations) on site on March 7, 2023. During the meeting, two potential areas for possible installation of a 3 meter wide cantilevered pedestrian crossing structure was discussed (see Google image below)



Location 1 above was discussed with Parks Canada representatives first. The following picture taken on March 8, 2023 illustrates the existing Parks Canada walkway adjacent to the Rideau River.





Location 1, (see above image) being a Parks Canada owned and maintained walkway adjacent to the Rideau River, serves as a general canal pedestrian crossing as well as loading and unloading area for transient boat mooring. Due to boat mooring, there is no opportunity to widen the existing crossing to accommodate an additional 3-meter wide crossing (to accommodate the Town's interest in accommodating different modes of active transportation such as walking and cycling). Parks Canada, primarily due to pedestrian and boater interaction, as well as constructability challenges were not in favour of this being a viable possible solution for the Town.



Location 2 (see above image) is downstream of Location 1 and serves as a dam, controlled by Parks Canada. Out of the two structures, Parks Canada representatives were of the opinion that this may be a viable location due to the projection of the piers on the north side of the dam. The idea was that the pier projections might afford weight bearing capacity, or a portion thereof for river crossing structure. Parks Canada was not opposed to the Town considering this for a potential crossing location.

Although there is a possibility that this location could accommodate a river crossing for Town purposes, there are a number of investigative studies that would have to be completed that weren't part of the original scope of work for the Municipal Class Environmental Assessment (MCEA) conducted by McIntosh Perry. Some of those studies would include Stage 1 Archeological Assessment, Cultural Heritage Evaluation Report, Marine Archeological Assessment, Geotechnical investigation, update to the Natural Science Investigation conducted for the original site, Hydraulic Analysis for the existing dam, Structural Analysis of the existing dam, etc. It is important to note that most of these assessments have been conducted for the original Confederation Drive River Crossing as part of the MCEA assignment (awarded to McIntosh Perry at a cost of \$86,311.81 plus HST), but does not encompass this location. If the MCEA were opened back up again for an amendment, any one of the aforementioned assessments could result in this option not being feasible, or in the case of structural work having to be done to the existing dam to

accommodate a river crossing, simply cost prohibitive. Additionally, Parks Canada and the Town would have to settle on an agreement for use of the dam, which presumably would outline insurance and indemnity provisions, as well as provisions of the Town bearing costs of removal or modification to the Town's structure should work need to be conducted on the Parks Canada dam in the future.

The Memorandum dated March 21, 2023 (Attachment 3) from Ghassan Zanzoul (Senior Bridge Engineer – McIntosh Perry) further outlines the requirements that would have to be satisfied in considering the location of the existing dam as a viable option for an active transportation river crossing.

**Option #1 (Recommended)** - Approve the location of a new pedestrian bridge in the current location of the existing Confederation Drive River Crossing and direct staff to advance the Confederation Drive River Crossing project to the detailed design phase for a pedestrian bridge application.

**Option #2 (Not recommended)** – Direct staff to engage McIntosh Perry to provide pricing for a Change Order to reopen the MCEA and go through the appropriate planning exercises and studies to inform of whether or not the Parks Canada dam location is a viable option for a river crossing.

### **Budget/Financial Implications:**

There is \$1,367,000 approved in the 2023 Capital Budget for the replacement of the Confederation Drive River Crossing with a 2-Span Truss Pedestrian Bridge. Of that \$1,367,000, \$147,000 is earmarked for detailed engineering design and tender preparation. If Council were to consider a pedestrian crossing affixed to the Parks Canada dam, it is unknown at this time if the approved budget allocation for detailed engineering design and tender preparation would cover the same work for a pedestrian crossing at this contemplated location. There is work that would have to be conducted by McIntosh Perry to inform on a) if the location of the dam is feasible or not, and b) what the estimated construction costs would be. This work is outside of the scope of work awarded to McIntosh Perry for the MCEA. The table below is a rough estimate provided by McIntosh Perry for a Scope Change to inform on feasibility and costs.

Item	Description of Work	Estimated Costs
1	Structural Assessment including option analysis, structure evaluation (stability and strength), concrete testing	\$25,000
2	Amendment to MCEA includes re-evaluation, consultation and a Public Information Centre	\$15,000
3	Additional Studies	
a	Hydraulic Analysis (proposed alternative)	\$10,000
b	Geotechnical Investigation	\$50,000
c	Stage 1 Archaeological Assessment	\$4,500
d	Cultural Heritage Evaluation Report	\$10,000
Total		\$114,500

Notes from McIntosh Perry:

- 1) The above noted fees does not include a Heritage Impact Assessment on the dam (if required)
- 2) Additional fees may be required based on Parks Canada requirements

**Link to Strategic Plan:**

Strategic Initiative #3.5 – Confederation Bridge Decision

Vision Statement – Item 4 – Investing in infrastructure to keep pace with needs

**Existing Policy:**

Asset Management Plan, Downtown Revitalization and Waterfront Integration Master Plan, 2013, Active Transportation Plan, Official Plan

**Consultations:**

CAO, McIntosh Perry, Parks Canada

**Attachments:**

Attachment 1 – Report #2023-008

Attachment 2 – Resolution Number 2023-01-22

Attachment 3 – Memorandum – March 21, 2023 – McIntosh Perry

**Notes/Action (space for Council Member's notes):**

Respectfully Submitted:

Original Copy Signed

Paul McMunn

Director of Public Works and Utilities

Approved for agenda by CAO:

Original Copy Signed

Malcolm Morris, CMO


**SMITHS FALLS**

RISE AT THE FALLS

**Report # 2023-008**

To: Mayor and Council

From: Paul McMunn C.E.T. Director of PW and Utilities

Date: January 10, 2023

Committee of the Whole Date: January 16, 2023

Title: Confederation Bridge - Notice of Study Completion, Preferred Alternative, and Preliminary Design

☒ For Direction

☐ For Information

☒ For Adoption

☒ Attachment (13 pages)

**Recommendation: THAT Council of the Corporation of the Town of Smiths Falls direct staff to publish the Notice of Study Completion for the Municipal Class Environmental Study in accordance with requirements under the Environmental Assessment Act;**

**AND FURTHER THAT Council endorse Preferred Alternative No. 4 – Replacement of Confederation Drive River Crossing with a new vehicle and/or pedestrian bridge under the Municipal Class Environmental Assessment Study;**

**AND FURTHER THAT Council endorse the Preferred Design Option - Replacement of Confederation Drive River Crossing with a Pedestrian Bridge (Option 2) as presented in Committee of the Whole Report #2023-008.**

### **Purpose:**

The purpose of this report is to seek direction from Council to publish the Notice of Study Completion for the Municipal Class Environmental Study, receive endorsement of the Preferred Alternative as well as Preferred Design Option #2 being a pedestrian crossing.

### **Background:**

At the regular Committee of the Whole meeting on July 25, 2022, staff presented Report #2022-110 (Attachment 1) which can be read in conjunction with this report. Representatives from McIntosh Perry were in attendance to present an overview of the Municipal Class Environmental Assessment Study as well as offer technical expertise to assist Council in determining the best path forward for replacing the existing out of service river crossing on Confederation Drive. Due to some report/presentation discrepancies, Council was not in a position to make any final decisions at that meeting. This report serves to address those discrepancies by providing Council with answers to those questions.

### **Analysis and Options:**

Following the Committee of the Whole meeting on July 25, 2022, questions/comments were presented to McIntosh Perry for clarification. McIntosh Perry provided a letter dated August 15, 2022 (Attachment 2) in response to Council's questions. The questions were as follows (see Attachment 2 – **MP Response** for full response from McIntosh Perry);

- 1) Confirmation that Preferred Design Option #1 as illustrated in the General Arrangement Option #1 drawing is a two-lane bridge;
- 2) Clarification that a single lane bridge is permitted in Ontario;

- 3) Confirmation of whether or not bridge abutments and centre pier were included in the engineers estimates for the different options;
- 4) Do the Preferred Design Options reflect a “cloned” look;
- 5) If a new vehicular bridge were installed, would that meet traffic warrants necessitating a signalized intersection at Beckwith Street South/Confederation Drive? How would this affect traffic flow on Beckwith Street South;
- 6) Financial implications need to be considered based on which option is most favorable.

As McIntosh Perry has addressed the questions resulting from the July 25, 2022 Committee of the Whole meeting, staff are seeking direction from Council with respect to the bridge selection so the project can advance to the detailed design stage. This would position the project to be completed in 2023, possibly extending into 2024 with current market, supply chain and contractor staffing resource challenges. As per Preferred Alternative #4 within the Municipal Class Environmental Assessment, the following options are provided;

**Option #1 (Not recommended)** - Replacement of Confederation Drive River Crossing with a 2-Span Truss Vehicular Bridge (single lane) with Pedestrian Platform

**Option #2 (recommended)** - Replacement of Confederation Drive River Crossing with a 2-Span Truss Pedestrian Bridge

The following planning policy documents support the retention and maintenance of a linkage between Beckwith Street and Confederation Drive in order to connect these two amenities, greenspaces and their broader community and transportation network.

#### Downtown Revitalization and Waterfront Integration Master Plan (2013)

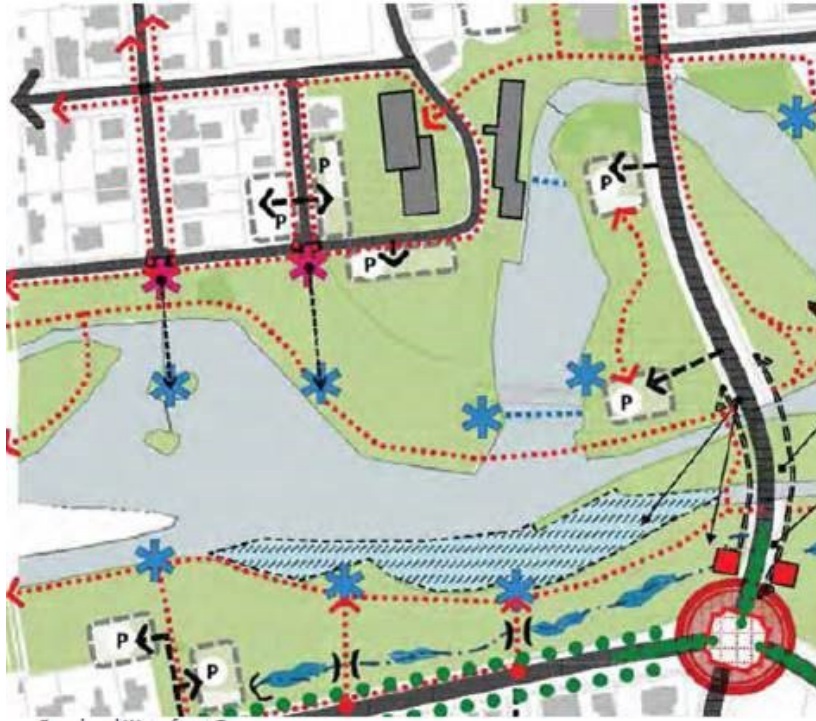
- Master Plan intended to guide the redevelopment of downtown and reconnect it to the waterfront. Plan focusses on public realm improvements, while private realm improvements are covered by CIP.
- Supports creating “continuous open space and pedestrian linkages along the Canal”.
- The Master Plan supports ending the Confederation Drive vehicle link between Beckwith and Strathcona in order to maximize the function and use of the greenspace in the area. Pedestrian/cyclist connections across the Rideau and around the waterfront are supported by the Plan, however the Plan does not specifically speak to whether the bridge should be restored for this purpose or a new link created. Applicable section highlighted below.

### 3.6.3 Centennial Park

The concept plan for Centennial Park envisions the closure of a portion of Confederation Drive (between Beckwith Street and the proposed extension of Park Avenue) as well as a portion of Old Mill Road (between Confederation Drive and the proposed extension of Strathcona Street). This would maximize the public green open space fronting the water, and may have the potential of hosting medium to large sized festivals and events. The



north-south roads that terminate at Centennial Park would provide great access and views of the Canal and park, with lookout points and interpretive nodes on the water's edge.



Town of Smiths Falls Official Plan (Council approved 2014, full force and effect 2016)

- Sec. 4.2.3 – Cultural Heritage and Archeology - outlines a goal “to identify, conserve, protect, restore, maintain, and enhance cultural heritage resources in order to promote a greater sense of historic awareness and community identity”. In the event the historical site is lost, it should be commemorated. The Planning Department notes that the Bridge was listed as a Property of Interest under the Ontario Heritage Act in 2015, however Council has previously decided not to rehabilitate the bridge.
- Goal CD-8 (Rideau Canal) calls upon the Town to increase tourist potential of the Rideau Canal World Heritage Site to the benefit of all stakeholders. This does not prescribe a desired outcome for the site, however does present this as a lens through which we consider the alternative options.
- Goal PR-4 (Interconnected Parks System) – To “provide an integrated system of parks connected by a full network of trails and pathways that provide opportunities for walking and biking for both recreation and transportation, thus fostering a healthy community”. This goal aligns with the Downtown Revitalization and Waterfront Integration Master Plan.
- Transportation Schedule of OP identifies Confederation Bridge as “On-Street Bicycle Facility”. Sec 6.10.7 outlines that “on-street Bicycle Facilities are either bike lanes or signed routes and are through routes for bicycles providing continuous access and connections to the local bicycle network. Neighbourhood traffic management strategies to slow and discourage through automobile and truck traffic may be appropriate. Pedestrians are also accommodated.”
- Policy TR-1.3 (Balanced Transportation System) – “Design, construct, operate and maintain public streets to enable safe, comfortable, and attractive access for motorists and for pedestrians of all ages, abilities and preferences.” It is arguable



that opening up this bridge to car traffic may result in a very constrained design that does not appropriately accommodate all users or safe, efficient traffic.

- Policy TR-4.4 (Vehicular Circulation) – “Maintain and enhance the interconnected network of streets and short blocks that support all modes of travel, provide direct access, calm neighbourhood traffic, reduce vehicle speeds, and enhance safety.”

Although the aforementioned referenced policy documents do not preclude a vehicular bridge for this river crossing, it should be noted that there is an opportunity before Council to replace the bridge with a structure that best serves Active Transportation modal travel. As McIntosh Perry’s General Arrangement Option #2 drawing is respective of a “cloned” look, that element is addressed from a historical preservation perspective. As the structure has been out of service since 2015 with little impact to traffic operations, the question of whether or not a vehicular bridge is warranted presents itself. If a pedestrian crossing was favored by Council, staff would monitor traffic operations for southbound traffic queueing on William Street West as a result of the Abbott Street bridge being swung. If queueing was deemed to be an operational concern, a dynamic digital message board could be installed on William Street South in advance of William Street West (section between Abbott Street North and Beckwith Street North) alerting motorists of the temporary bridge closure and to use the Beckwith Street South river crossing.

A pedestrian crossing treatment is further supported by means of an endorsement received by Saumure Group of Companies who have been selected by Council to submit their future conceptual plans for the redevelopment of the former Water Treatment plant property for consideration (see Attachment 3).

#### **Budget/Financial Implications:**

The Class ‘C’ Construction Cost Estimates for Preferred Options 1 and 2 prepared by McIntosh Perry were \$2,400,000 and \$1,220,000 respectively.

Option	Description	Estimated Total Cost with 15% contingency
1	2-Span Truss Vehicular Bridge (single lane) with Pedestrian Platform	\$2,400,000
2	2-Span Truss Pedestrian Bridge	\$1,220,000
3	2-Span Steel I-Girder Vehicular Bridge (single lane) with Pedestrian Platform	\$3,250,000
4	Single Span Truss Pedestrian Bridge	\$1,550,000

The first version of the 2023 capital budget, presented at the Committee of the Whole on January 9, contained a placeholder for this bridge project at \$\$2.64M, being an updated estimate of the higher priced option #1 under consideration, with preliminary proposed funding from various sources, including OCIF funding. Should council approve the staff recommendation (option #2), this budget will be revised as part of the second draft, and funding plans updated, including the potential shifting of OCIF funding to other eligible projects such as Catherine Street.

Based on the recent Asset Management Plan (Core Assets) update, there are many critical infrastructure projects that will be required to be completed over the next 10 years and onwards to maintain Levels of Service. The following excerpt from the Asset Management Plan (Core Assets) notes the projected Capital reconstruction projects from 2023-2030 which align with the 2020 WTP/WPCP financial plans.

<b>2023</b>	Catherine St (Oak St to Broadview St E)
<b>2024</b>	George St S (Strathcona St to Main St W) George St N (Main St W to William St W)
<b>2025</b>	George St N (William St W to Gladstone Ave)
<b>2026</b>	Maple Ave (Main St W to William St W) Old Mill Rd (Bend to Main St W)
<b>2027</b>	Maple Ave (William St W to Gladstone Ave)
<b>2028</b>	Johnston St (Beckwith St N to Elmsley St N) Main St E (Beckwith St N to Market St N)
<b>2029</b>	Chambers St (Beckwith St S to Market St N) Russell St E (Market St N to Beckwith St N)
<b>2030</b>	Abbott St N (Strathcona St to William St W) Centre St (Gile St to Elmsley St S)

Regardless of whether a vehicular bridge or a pedestrian bridge is selected, going forward there will be significant financial pressures on the Town's reserves and taxation rates to fund the maintenance and replacement of the Town's aging infrastructure. On that note, it's important to consider if a vehicular crossing presents the best value.

The provincial and federal government are increasing funding for active transportation projects post COVID, such as the recent announcement of the Active Transportation Fund. Although not all the details have been released yet, the fund will provide \$400 million over 5 years to support the expansion and enhancement of active transportation infrastructure. Upon review of the eligibility criteria, staff are of the opinion that the Town would be in a favorable position to apply for this funding for an active transportation crossing (walking, cycling, skiing, etc.). Infrastructure Canada's website does not note how much can be applied to Capital projects, just that the maximum program contribution is 60%. Project selection will be merit-based and final project selection will be undertaken with a view to balancing funding support by taking into consideration such factors as regional distribution, the type of project, and equitable access.

#### **Link to Strategic Plan:**

Strategic Initiative #3.5 – Confederation Bridge Decision

Vision Statement – Item 4 – Investing in infrastructure to keep pace with needs

#### **Existing Policy:**

Asset Management Plan, Downtown Revitalization and Waterfront Integration Master Plan, 2013, Active Transportation Plan, Official Plan

**Consultations:**

CAO, McIntosh Perry, Senior Planner

**Attachments:**

Attachment 1 – Report #2022-110

Attachment 2 – McIntosh Perry letter – Dated August 15, 2022

Attachment 3 – Email from Saumure Group of Companies – Dated January 12, 2023

**Notes/Action (space for Council Member's notes):**

Respectfully Submitted:

Original Copy Signed

Paul McMunn

Director of Public Works and Utilities

Approved for agenda by CAO:

Original Copy Signed

Malcolm Morris, CMO

**THE CORPORATION OF THE TOWN OF SMITHS FALLS**  
**Regular Council Meeting**

**Resolution Number** 2023-01-22

**Title:** Confederation Bridge

**Date:** Monday, January 16, 2023

As per Bill 187 and By-law 10132-2020 which permits electronic participation in council, board and committee meetings. Signatures to be obtained from the appropriate parties at a later date due to the COVOD-19 pandemic.

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**Moved by** P McKenna

**Seconded by** C McGuire

THAT Council of the Corporation of the Town of Smiths Falls direct staff to publish the Notice of Study Completion for the Municipal Class Environmental Study in accordance with requirements under the Environmental Assessment Act;

AND FURTHER THAT Council endorse Preferred Alternative No. 4 – Replacement of Confederation Drive River Crossing with a new vehicle and/or pedestrian bridge under the Municipal Class Environmental Assessment Study;

AND FURTHER THAT Council endorse the Preferred Design Option - Replacement of Confederation Drive River Crossing with a Pedestrian Bridge (Option 2) as presented in Committee of the Whole Report #2023-008.

AND THAT Council direct staff to pursue opportunities with Parks Canada to enhance their current river crossing structure that would permit pedestrian and bicycle traffic as an option;

AND THAT Council direct staff to apply for funding through available Active Transportation Grant Programs.

**Carried**

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Mayor



# McINTOSH PERRY

## MEMORANDUM

To: Paul McMunn, Director of Public Works & Utilities, Town of Smiths Falls

From: Ghassan Zanzoul, Senior Bridge Engineer, McIntosh Perry Consulting Engineers Ltd.

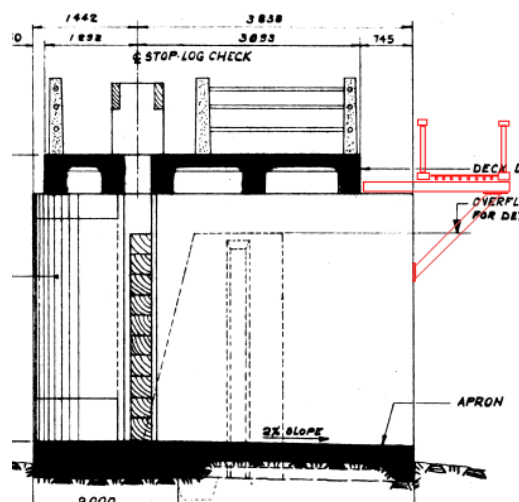
Date: March 21, 2023

Re: Requirements to determine the feasibility of cantilevering/attaching a new pedestrian walkway to the existing Parks Canada dam

As per the Town's request on March 8, 2023, McIntosh Perry has prepared this brief Memorandum to identify the steps required to be taken to determine the feasibility of cantilevering/attaching a new pedestrian walkway to the existing Parks Canada dam, south of the existing Confederation Drive River Crossing.

The following will be required to determine the feasibility from a structural standpoint to attach a new pedestrian walkway to the existing Parks Canada dam:

1. Options analysis would to determine the structure type of the new pedestrian walkway and prepare a preliminary design to determine the additional load that would be applied to the existing dam structure;
2. A Structural Evaluation of the existing dam to investigate the stability and structural strength of the existing dam to support the new structure being attached;
  - a. Including concrete core test of the existing dam, abutments and piers;
3. Geotechnical investigation may be required if the additional loads increase the load on the foundation by more than 10%, and
4. Hydraulic analysis to determine any potential impacts on the existing dam's hydraulic function (i.e., if pier or abutment walls need to be extended to support new pedestrian walkway, etc.).



**Conceptual Sketch**

In addition to the Structural Feasibility Study, the following would need to be undertaken as part of the Municipal Class Environmental Assessment process to determine if a pedestrian walkway can be cantilevered/attached to the existing Parks Canada dam:

1. Amend the existing Municipal Class Environmental Assessment Project File to include cantilevering/ attaching a new pedestrian walkway to the existing Parks Canada dam as a proposed Alternative Solution and re-evaluation alternative solutions. The evaluation process would need to take into consideration the findings of the Structural Feasibility Study;
2. Undertake additional studies on and surrounding the existing dam such as a Stage 1 Archaeological Assessment, Cultural Heritage Evaluation Report as the dam is over 40 years old, Marine Archaeological Assessments, Geotechnical Investigation, update Natural Science Investigation for the extended study area, etc.;
3. Consultation with Parks Canada to determine the feasibility of attaching to the existing dam, as well as gain permission to undertake additional studies. The Town and Parks Canada would also need to establish and entire into an agreement between parties which outlines future commitments and guidelines (i.e., is the Town responsible for any cost-sharing of any future dam rehabilitation costs, etc.);
4. Based on previous consultation with Parks Canada, any works in/on/over the Rideau River will trigger review and approval by Parks Canada under the federal Impact Assessment Act (i.e., Basic Impact Assessment (BIA), Detailed Impact Assessment). Therefore, further consultation with Parks Canada will be required to determine the level of federal Impact Assessment required for attaching a new pedestrian walkway to the existing dam and undertake the assessment, and
5. Consult with review Governing Agencies and the public to solicit comments and input pertaining to the new alternative solution which may require a secondary Public Information Centre.

Upon the Town's review of this memorandum, McIntosh Perry's team is available to discuss and determine whether including this new alternative solution is a viable option.