

# City of Kawartha Lakes

## Rehabilitation of Mill Pond Bridge – Mary Street East, Omemee

### Schedule “B” Municipal Class Environmental Assessment



Presentation to Council

June 18, 2019

# Project Background

- Existing Mill Pond Bridge located on Mary Street East over the Pigeon River.
- Original timber bridge crossing at this location 1877 (earliest record).
- Current bridge constructed in 1952, Mill Pond Bridge has been in service for 68 years. Bridge donated by the County of Victoria after service over the Little Bob River in Bobcaygeon.
- Conveys single-lane east-west traffic over Pigeon River.
- 2017 OSIM Inspection indicated that the structure is in need of rehabilitation or replacement.
- PIC held in February 2019 presented alternative solutions to the public.
- Independent investigation conducted in May 2019 revealed further structural deterioration.
- Structure was closed to vehicular traffic on May 7, 2019.
- Structure has Heritage value (ASI, 2019).



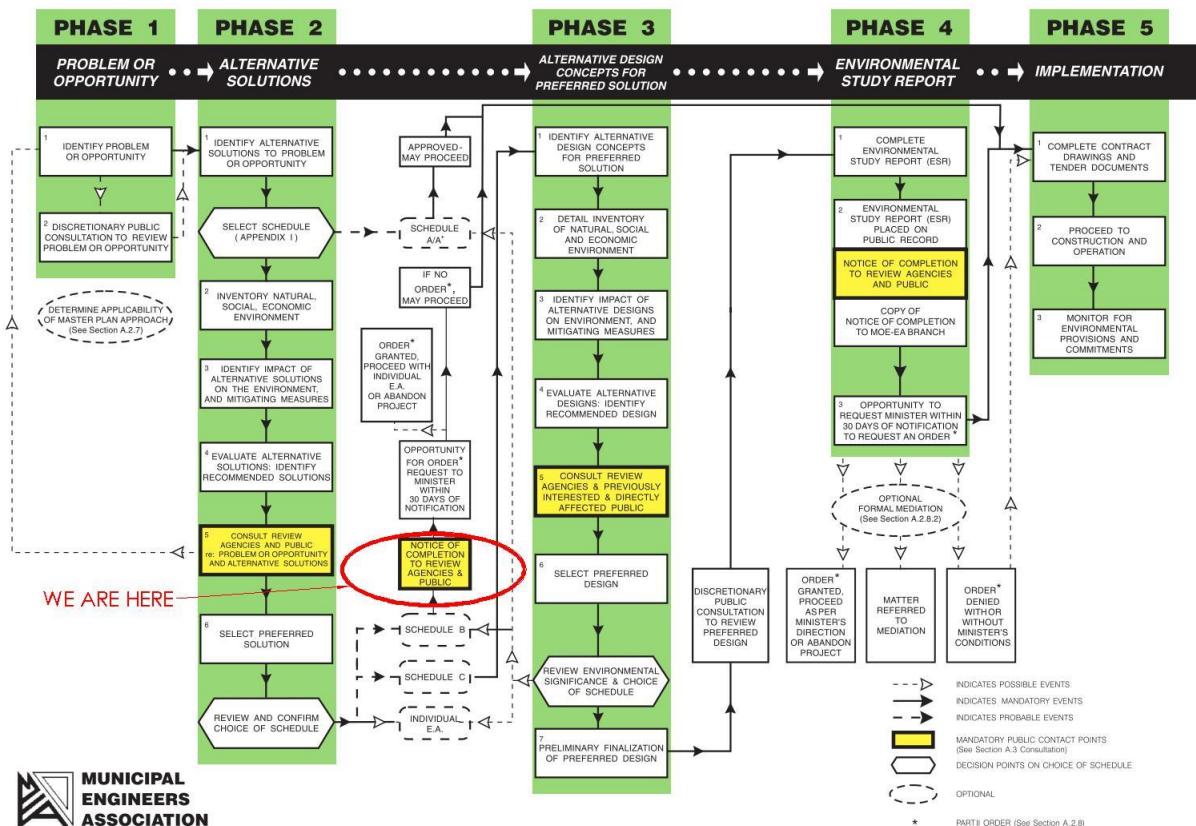
# Municipal Class EA Planning and Design Process

The City of Kawartha Lakes has completed a Schedule B - Municipal Class EA study to identify the preferred solution to address the need for rehabilitation or replacement of the Mill Pond Bridge.

## EXHIBIT A.2

## MUNICIPAL CLASS EA PLANNING AND DESIGN PROCESS

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



- Reconstruction or alteration of a structure which is over 40 years old and has been found to have cultural heritage value is considered a Schedule B undertaking.
- Schedule B projects have potential for some adverse environmental effects.
- Subject to screening, Schedule B projects only require completion of Phase 1 and Phase 2 of the EA process before proceeding to Phase 5.



## Phase 1 – Problem or Opportunity



- Mill Pond Bridge serves the Village of Omemee, providing local residents an alternate crossing of the Pigeon River separate from the Trans-Canada Highway (Highway 7) located ~0.1 km to the north.
- 2017 OSIM Inspection indicated that the structure is in need of rehabilitation or replacement.
- Independent investigation conducted in 2019 revealed further structural deterioration.
- Structure was closed to vehicular traffic on May 7, 2019.

### **Problem or Opportunity Statement**

- Mill Pond Bridge, having deteriorated to a state of structural concern, is unable to fulfill its functional requirements and has been closed to vehicular traffic.
- If a secondary bridge crossing over the Pigeon River in Omemee, ON, is to be maintained, intervention in the form of replacement or rehabilitation is required.

## Phase 2 – Identification of Alternative Solutions

### Alternative Solutions Considered

### Rational

#1 – Rehabilitation and Addition of Pedestrian Walkway with Single-Lane (Two-way Traffic Flow)



- Addresses need for safe pedestrian access separate from vehicular travel lane
- Addresses need for structural strengthening in the form of rehabilitation or replacement
- Maintains current functionality of two-way traffic flow

#2 – Rehabilitation and Addition of Pedestrian Walk-way with Single-Lane (One-way Traffic Flow)



- Addresses need for safe pedestrian access separate from vehicular travel lane
- Addresses need for structural strengthening in the form of rehabilitation or replacement
- Close bridge to eastbound traffic (improved traffic flow on Mary St. E. at bridge location)

#3 – Close Bridge to Vehicular Traffic and Maintain as Pedestrian Bridge Only



- Addresses structural concerns by reducing the service load to pedestrian loading only
- Maintains pedestrian crossing secondary to Trans-Canada Highway

#4 – Replace Bridge with Widened Cross-section and Open to Two-Lane (Two-way Traffic) and Pedestrian Use



- Addresses need for safe pedestrian access separate from vehicular travel lane
- Addresses need for structural strengthening in the form of rehabilitation or replacement
- Introduction of second lane for two-way traffic is desirable

#5 – Decommission and Remove Bridge



- Provides alternative solution which removes bridge and future costs from City's bridge inventory

The following stakeholders were circulated for consultation:

- City of Kawartha Lakes;
- Kawartha Conservation Authority;
- Kawartha Trans-Canada Trail;
- Ministry of Environment, Conservation and Parks;
- Ministry of Natural Resources and Forestry (Peterborough District);
- Ministry of Tourism, Culture, and Sport;
- First Nations;
- Trilium Lakelands District and PVNC Catholic School Boards;
- Student Transportation Services of Central Ontario;
- Kawartha Lakes Police, Paramedic, and Fire Services;
- Member of Provincial Parliament;
- Member of Parliament;
- Utility Service Providers; and
- Public and Businesses of Omemee, ON.

### **Key Points of Contact**

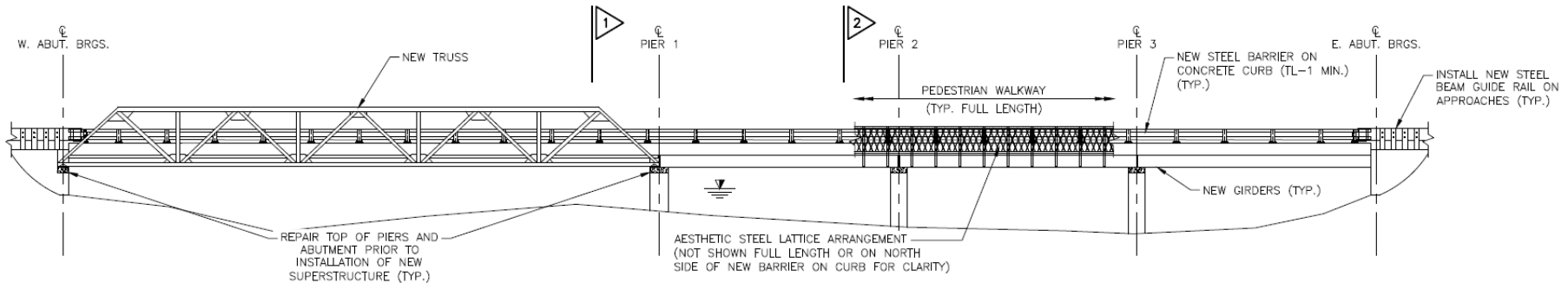
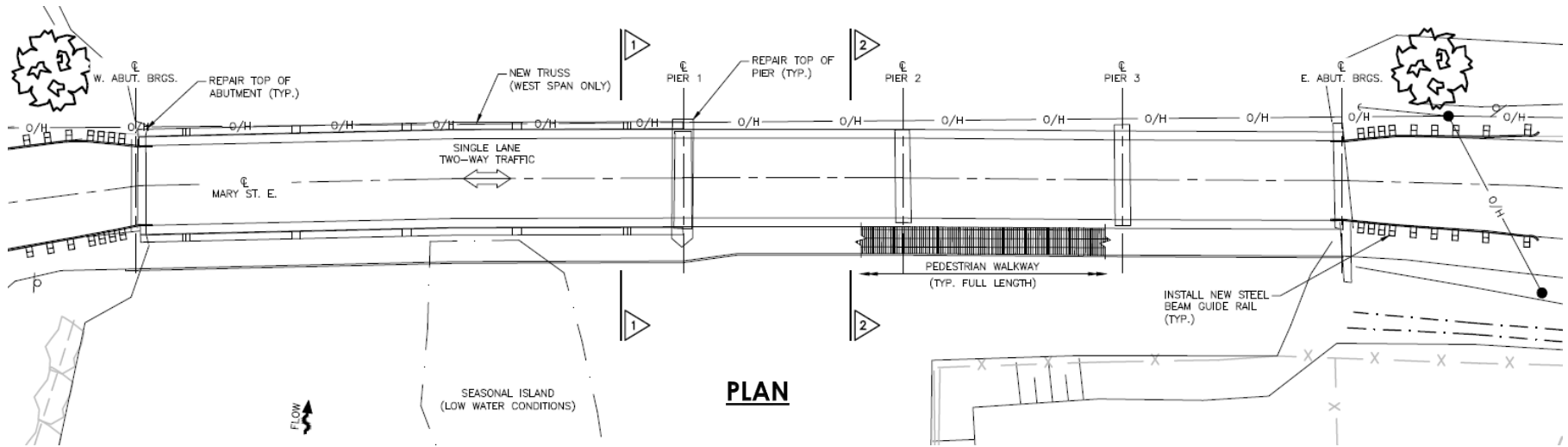
- Notice of Study Commencement and PIC invitation, issued January 23, 2019.
- Correspondence with Curve Lake FN, February-March, 2019.
- PIC was held on February 4, 2019.
- Correspondence with MECP, March 4, 2019.
- Consultation with Curve Lake FN throughout Stage 1 Archaeological Assessment, April 2019.
- Correspondence with MNRF, June 2019.

## Alternative Evaluation Summary

Alternative	1	2	3	4	5
Addresses Entirety of Problem Statement?	Yes	Yes	No	Yes	No
Relative Monetary Cost	Medium	Medium	Low	High	Low

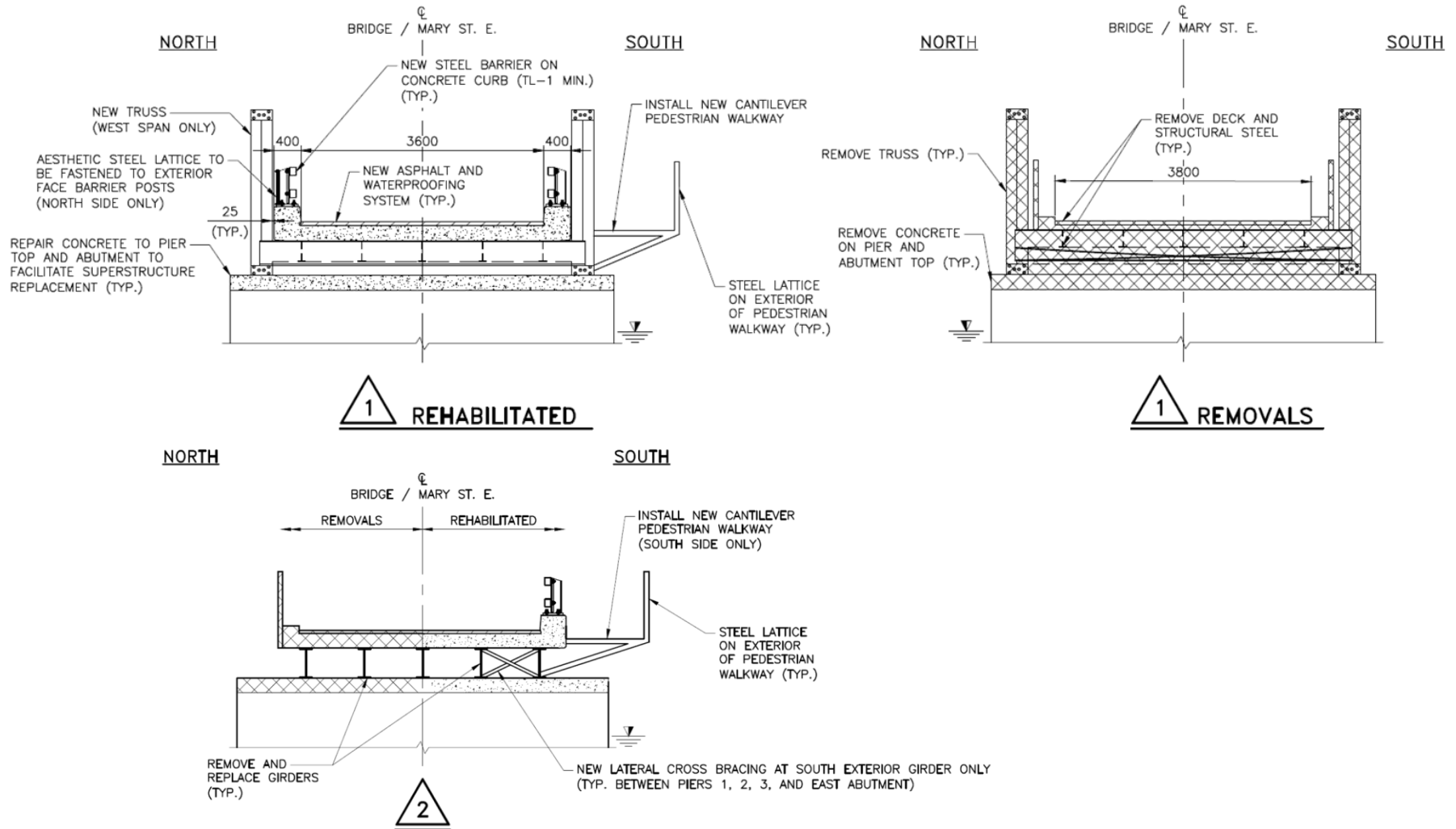
- Alternatives 1, 2, and 4 address entirety of problem statement.
- Of the three viable alternatives, Alternatives 1 and 2 present the lowest relative costs.
- Scope of work for Alternatives 1 and 2 differ only on a traffic management basis.
- Based on feedback received during the February PIC, two-way traffic is preferred.
- **Alternative 1 is the Preferred Alternative.**

# Conceptual Plan of Preferred Solution (Alternative #1)





# Conceptual Plan of Preferred Solution (Alternative #1)



- Heritage aspects of existing structure include the truss over the west span.
- Due to the advanced deterioration of the truss, refurbishment is not considered to be a viable option.
- Replacement of the truss with sympathetic design is recommended.
- Recommended rehabilitation method includes complete superstructure replacement with concrete repair to abutments and piers.
- In-water work required for repair of abutments and piers. Continued consultation with MNRF and KRCA to finalize environmental impact mitigation strategies.
- Replacement superstructure includes the installation of code compliant barrier system (minimum TL-1).
- Implementation cost estimated at \$1.49 Million (excluding HST).

## **Next Steps**

- Finalize the Schedule “B” Class EA and Project File.
- Publish “Notice of Completion” and Project File for 30-Day Public Review.
- Proceed with Detailed Design & Construction in 2020, subject to Council budget approval.

**Questions?**

**Thank You!**

