



The Municipality of Middlesex Centre: Bridge Superstructure Replacements

November 30, 2021



Project Introduction



- Bridges B-124 and B-146 were identified by the Municipality of Middlesex Centre as candidates for replacement during regular biennial inspections in 2019.
- GM BluePlan has been selected as the prime consultant by the Municipality to design and administer the replacement of both bridges.
- The bridges were originally constructed in the late 1950's and have reached the end of their expected service lives.
- Proactively replacing structures that have reached the end of their service lives is an essential part of maintaining a healthy public infrastructure system.

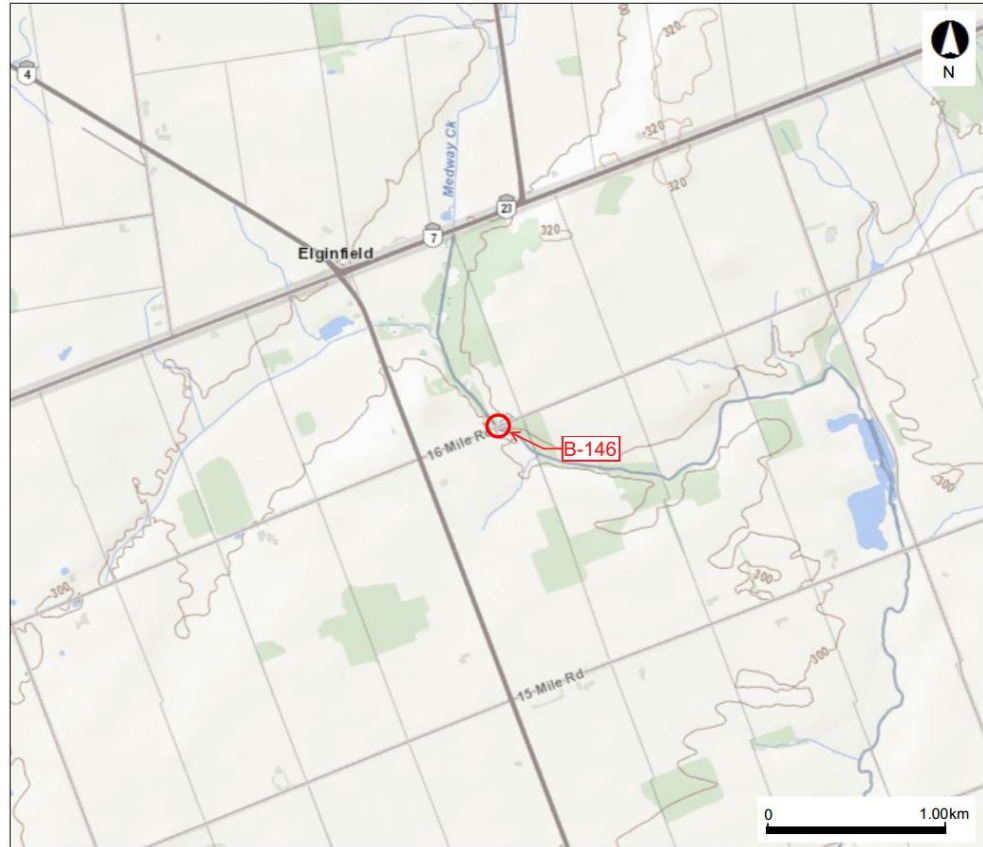
Project Location

- Structure B-124 is located on Ten Mile Road, approximately 0.6 km east of Hyde Park Road.



Project Location

- Structure B-146 is located on Sixteen Mile Road, approximately 0.5 km east of Highway #4.



Project Objectives

The bridge replacements are expected to:

- Provide a long-term solution to maintain crossing of existing watercourses.
- Improve longevity of the structures by replacing the existing deck, asphalt paving, railings, curbs, adding approach slabs, and erosion protection.
- Minimize impacts resulting from construction to neighboring properties and members of the community.
- Restore the area to match or improve upon pre-construction conditions.



Why Is This Presentation Important?

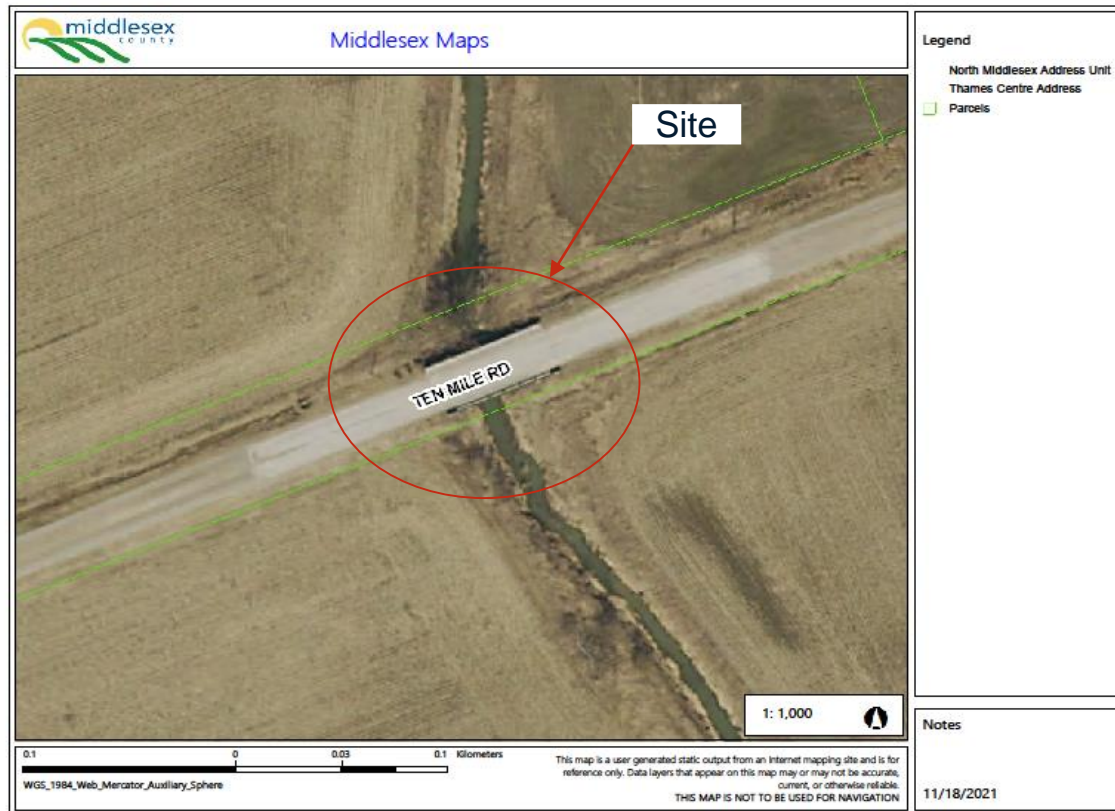


- To inform the public of the upcoming work and any potential disruptions that may occur.
- To solicit community feedback and to provide an opportunity for questions to be asked and answered prior to the start of construction.
- Feedback and questions may be submitted to the Municipality of Middlesex Centre via:

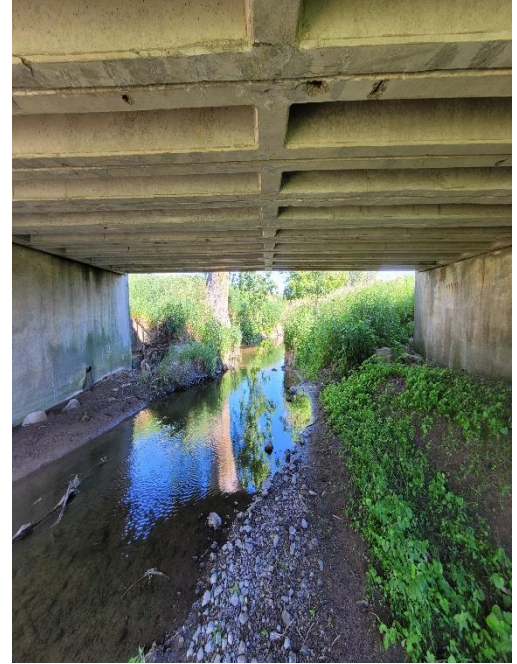
Andrew Giesen - Transportation Manager
giesen@middlesexcentre.on.ca

Existing Conditions – B-124

- Deck comprised of precast concrete deck units.
- Superstructure carries two lanes of predominantly vehicular traffic in a single span.
- Structure regularly carries agricultural vehicles and equipment.
- Crosses Oxbow Municipal Drain.

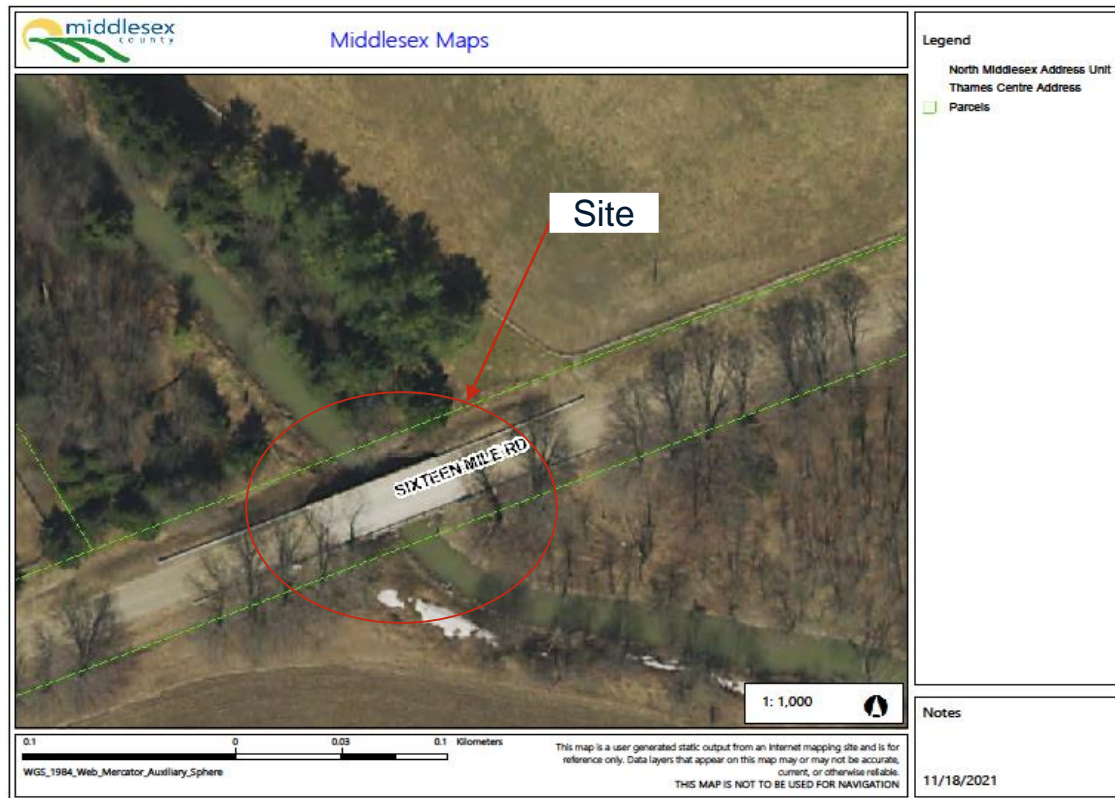


Existing Conditions – B-124

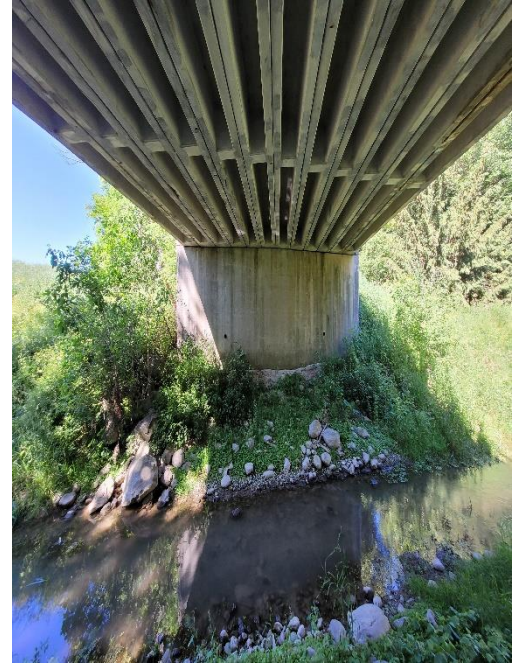


Existing Conditions – B-146

- Deck comprised of precast concrete deck units with a 20-degree skew.
- Superstructure carries two (2) lanes of predominantly vehicular traffic in a single span.
- Structure regularly carries agricultural vehicles and equipment.
- Crosses Medway Creek.

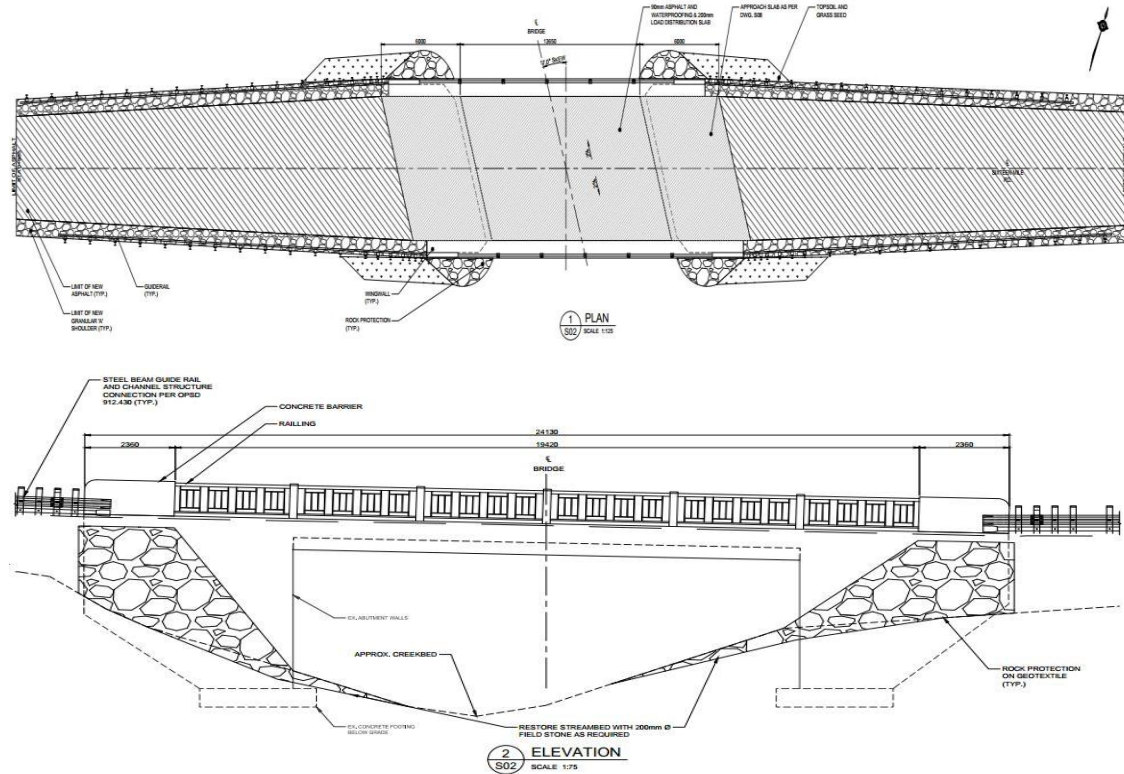


Existing Conditions – B-146



Proposed Conditions

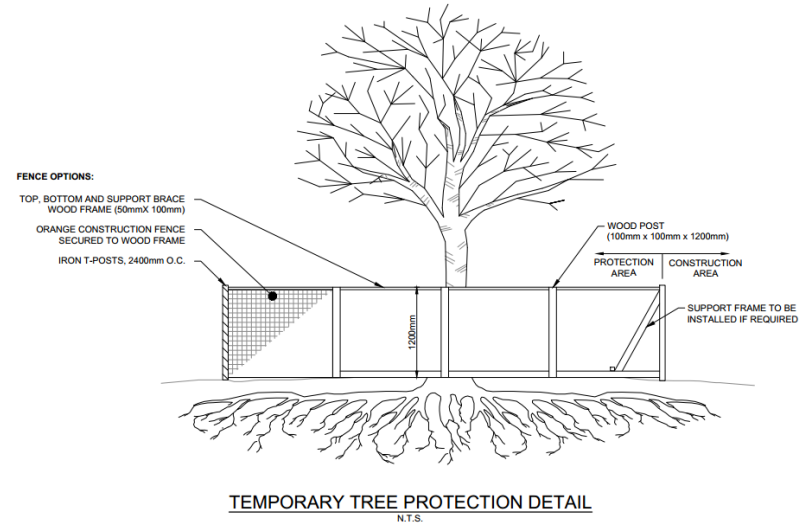
- Superstructure on Bridges B-124 and B-146 to be replaced.
- Conversion to semi-integral abutment.
- Approach slabs to be added at each end.
- Erosion protection placed on embankments.
- Consideration given to the passage of agricultural vehicles and equipment.
- Construction is expected to be completed in approximately 12 weeks per structure.



B-146 shown, B-124 similar

Environmental Considerations

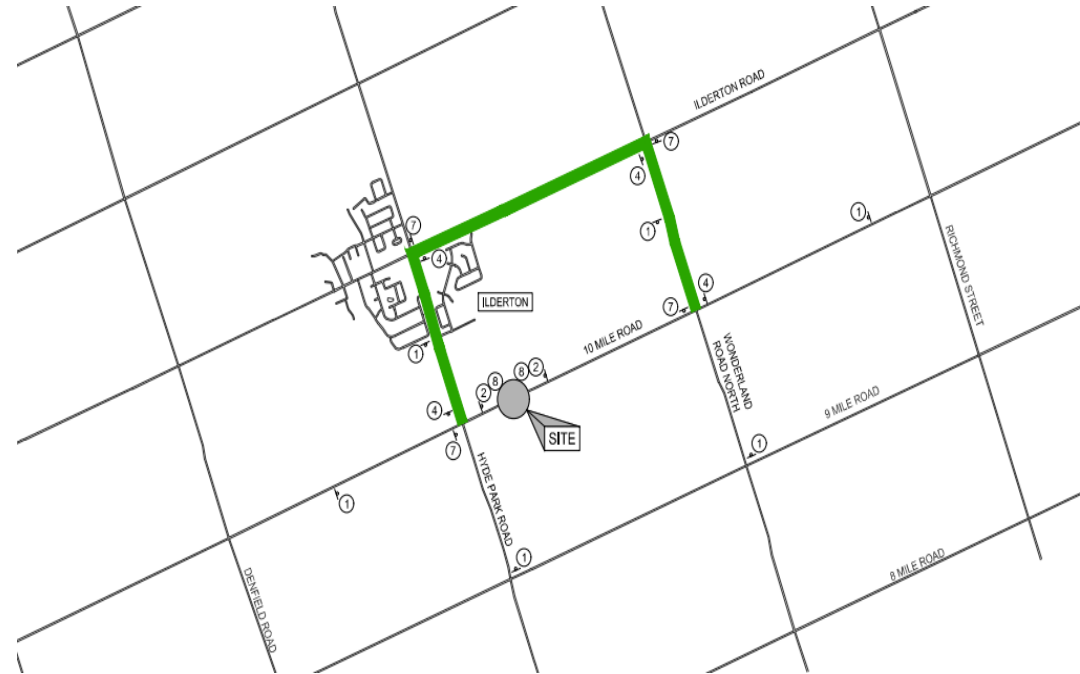
- A sediment and erosion control plan will be implemented to eliminate deleterious substances from entering watercourse.
- A tree protection program will be implemented to prevent damage to healthy, mature trees adjacent to construction activities.
- No in-water works are anticipated for this project.
- Each site has been investigated by a biologist for the presence of Species At Risk (SAR). No SARs have been identified at either site.



Proposed Detour – B-124



- Full road closure during construction is required.
- Access to residences and field access will be maintained at all times.
- Dust control program to be implemented due to increased traffic on gravel roads.
- Detour route to utilize Hyde Park Road, Ilderton Road, and Wonderland Road North.



Proposed Detour – B-146

- Full road closure during construction is required.
- Access to residences and field access will be maintained at all times.
- Dust control program to be implemented due to increased traffic on gravel roads.
- Detour route to utilize Richmond Street (Hwy #4), Elginfield Road, and Adelaide Street North.



Next Steps

- Tendering
 - March of 2022
- Council Review and Award of Construction Contract
 - March of 2022
- Construction and Restoration
 - Summer through fall of 2022
- Warranty Period
 - Ends fall of 2023



Thank You

Feedback & Questions
may be submitted to:

Andrew Giesen
Transportation Manager
giesen@middlesexcentre.on.ca

