

Advisory Committee of Council Staff Report



To Accessibility Advisory Committee
Date Tuesday, June 18, 2024
Subject **Emma Street to Earl Street Active Transportation Bridge**

Recommendation

1. That the AAC receive the report for the Emma Street to Earl Street Active Transportation Bridge and recommend the following:
 - The AAC recommend that...
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Executive Summary

Purpose of Report

To share details on accessible design elements for the Emma Street to Earl Street Active Transportation Bridge.

Key Findings

The bridge is being designed to comply with all provincial, structural and accessibility codes and regulations. The design team has included elements compliant with the City’s Facility Accessibility Design Manual (FADM), Linear Infrastructure Standards (LIS), Tree Technical Manual, Master Plans for cycling, trails and transportation and the Schedule B Class Environmental Assessment.

Strategic Plan Alignment

The development of the Emma Street to Earl Street Active Transportation Bridge aligns primarily with two major themes in the Strategic Plan: City building and Environment.

This project contributes to building a transportation system that works for everyone in our community and offers a variety of travel options to suit different needs and abilities and it also enables the community to be environmental stewards and contribute to the reduction of community greenhouse gas emissions by providing more cycling and walking options.

Financial Implications

The approved 2024 budget for this project is approximately \$5.8 million.

Report

The Emma Street to Earl Street Active Transportation Bridge will provide a pedestrian and cycling link across the Speed River.

Since last attending the Accessibility Advisory Committee meeting in October 2023 the following works have been completed:

- A Have Your Say public engagement was completed to determine the look and feel of the bridge.
 - The steel girder bridge design was selected as the preferred design and has been the basis for the detailed design (see Figure 1).
- Archaeological and geotechnical work was completed on site.
- Preliminary site clearing has taken place outside of migratory bird season.
- Detailed design has advanced to 60% design.

Figure 1 - Preferred design of Steel Girder Bridge



Detailed Design

The following identifies the design philosophy used for developing the detailed design of the bridge:

- The bridge must be safe and accessible for all users. This means providing sufficient deck width along the full length of the bridge for pedestrians and cyclists to share the space, providing a clear line of sight from one end of the bridge to the other (including adequate lighting), and designing in accordance with the City of Guelph Facility Accessibility Design Manual (FADM).
- The design must respect the natural environment of the site. This means minimizing the impact of construction access and work; aiming for a low-profile aesthetic impact; properly managing drainage off the bridge deck and making efficient use of materials to minimize embodied carbon.
- The bridge must embody a harmony of economy and elegance. Aesthetic elegance in bridge design does not need to imply higher cost – a context-sensitive design approach that considers aesthetics and efficiency together in selecting the bridge’s materiality and form can result in a bridge that equally expresses aesthetic sensitivity and economy of means.

In addition to all provincial, structural and accessibility codes and regulations, the design team are also focused on meeting the City’s Facility Accessibility Design Manual (FADM), Linear Infrastructure Standards (LIS), Tree Technical Manual, Master Plans for cycling, trails and transportation and the Schedule B Class Environmental Assessment.

Key design elements include:

- Concrete deck that is 4 metres wide from curb to curb
- Curb height of 75 millimeters along bridge
- Deck drains

- Bridge and access slopes that are no greater than 2% with 2% cross slope
- Down lighting on bridge to be provided in handrail at 10 lux illuminance
- Top of handrail height is 865 millimeters above bridge deck
- Guard height of 1,370 millimeters above top of deck with 22 millimeter wide vertical pickets spaced 100 millimeters apart
- Asphalt path connection to existing trail
- Straight alignment of bridge for sightlines, safety and security

The incorporation of these design elements into the simplicity of the steel girder design creates a bridge that meets the original design philosophy by:

- Providing accessibility for all users including appropriate levels of lighting for both safety and aesthetic goals,
- Creating a shared space for pedestrians and cyclists,
- Providing improved safety and personal security for those using the bridge by creating open and straight sightline across the bridge and its approaches, and
- Accommodating winter snow removal vehicles.

Next Steps

- Continue to seek input from relevant agencies and stakeholders to refine the design elements
- Apply for permits
- Finalize the design for construction
- Share detailed design information with the public to outline construction timing and infrastructure impacts
- Tender project in Fall 2024
- Construction in 2025

Financial Implications

The approved 2024 budget for this project is approximately \$5.8 million. Minimal impact is expected to the Operating budget. Ongoing maintenance costs to maintain the new asset can be anticipated to keep the trail open year-round.

Consultations

The following outlines the engagement activities undertaken since the completion of the Schedule B Class Environmental Assessment (August 2022):

- Engagement with Six Nations of the Grand River and Mississaugas of the Credit First Nation (ongoing)
- Have Your Say public engagement completed in October 2023
- Engagement with the Accessibility Advisory Committee in February 2023 and October 2023
- [Engagement Summary Report](#) posted on-line in November 2023

Attachments

Attachment 1 - General Arrangement Drawing

Attachment 2 - Presentation_Emma St to Earl St Active Transportation Bridge

Report Author

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