

Bridges over the Grand River: Brantford's Connected Future

MEA Conference

November 2023



Topics

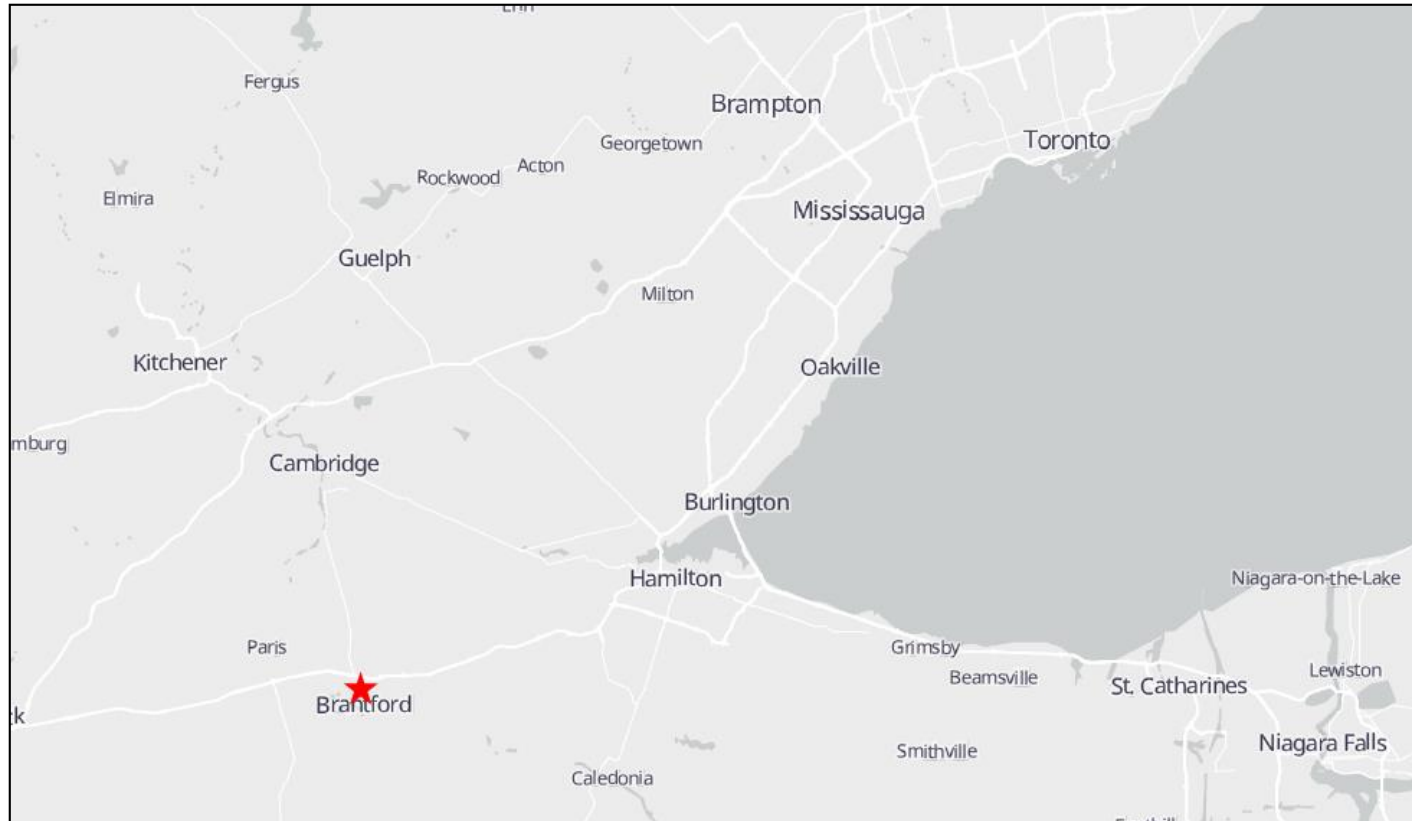
1. City of Brantford Background
2. Three Grand Crossings History
3. Constraints
4. Opportunities
5. Recommendations and Actions Taken
6. Progress to Date
7. Paving the way for the Future



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Background: City of Brantford



- Current population: 104,688
- Projected population in 2051: 165,000
- The City of Brantford is a fast growing community that is unique in many ways:
 - Education: Wilfrid Laurier University, Conestoga College, and Six Nations Polytechnic campuses
 - Industry: Hershey Chocolate, Ferrero Canada, Zamboni and many others
 - Recreation, sports, and culture hub – Wayne Gretzky Sports Centre, Brantford Bulldogs OHL team, and Sanderson Centre for the Performing Arts
 - Natural amenities and Hub of Ontario's Trails situated along the beautiful **Grand River**

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Three Grand River Crossings Background

- Three Bridges over the Grand River connecting Downtown Brantford and West Brant communities
- One Vehicular bridge, two pedestrian bridges
- MCEA undertaken in 2020 to identify repairs needed on the three structures and opportunities for improving traffic flows, active transportation network, climate adaptation, and protect the critical infrastructure
- Heritage components of all three Crossings needed to be considered
- Location over the Grand River makes the Bridges susceptible to significant flooding and ice jamming

Lorne Bridge



Brant's Crossing Bridge



TH&B Crossing Bridge



Lorne Bridge

- Lorne Bridge carries five lanes of traffic on Colborne Street West, with sidewalks on the north and south sides of the bridge
- There are no formal cycle lane pavement markings in the roadway and cyclists typically share the sidewalk with pedestrians
- The bridge has 30 tonne load limit in the winter
- The original structure was built in 1924, and the bridge has been identified as requiring major structural repairs to maintain the crossing



Brant's Crossing Bridge

- Brant's Crossing Bridge is a four span bridge that was originally designed to convey railway traffic and has been converted to carry pedestrian and cyclist traffic across the Grand River
- The bridge was closed in February 2018 following a flooding and ice jam event
- A structural investigation took place following the flooding event. It was recommended that the City of Brantford keep the bridge closed until the necessary repairs can take place to ensure its safe use by the public



TH&B Crossing Bridge

- The TH&B Crossing Bridge carries pedestrian and cyclist traffic over the Grand River
- The bridge was temporarily closed following the February 2018 flooding and ice jam event. The bridge was reopened following structural investigations but was identified as requiring repairs in the near future to maintain the existing crossing
- The timber deck was not capable of supporting the desired City maintenance equipment and the bridge has been subject to graffiti and vandalism



Constraints

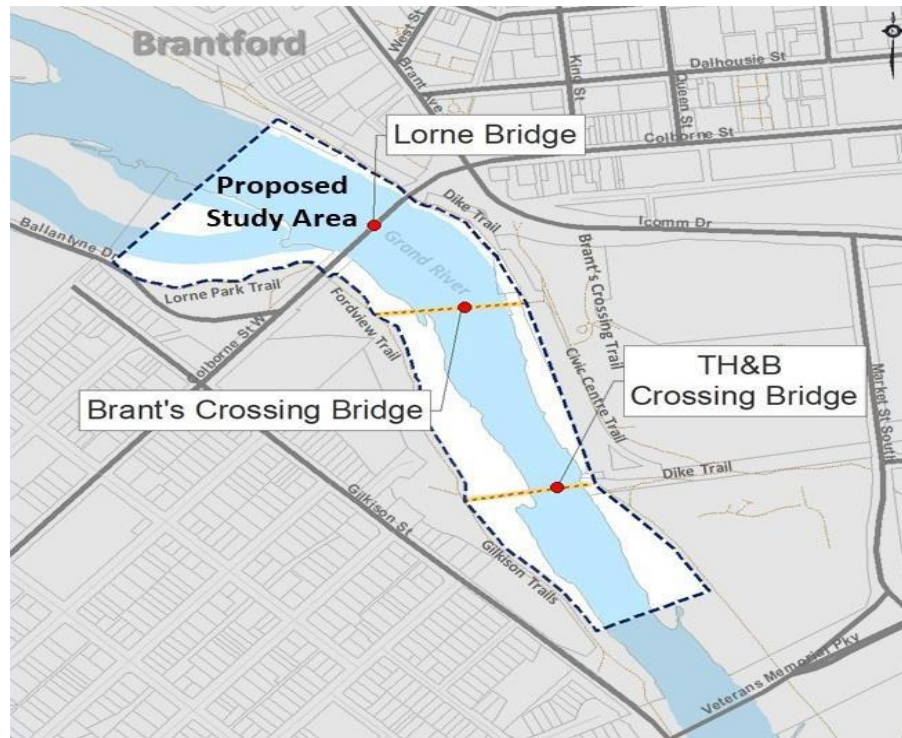
- The City is located on the Grand River which makes it vulnerable to significant flooding
- On February 21, 2018, the City of Brantford was faced with an ice jam which resulted in a flood that directly impacted about 21,330 community members and created a financial impact of over \$4 million. Water levels rose to the underside of the TH&B and Brant Crossings
- Several bridges in the City were closed on the day of the event, including the Three Grand River Crossings. Lorne Bridge and TH&B Crossing Bridge reopened quickly while Brant's Crossing Bridge had remained closed



Opportunity

Schedule "C" MCEA 2020-2022 (GM BluePlan)

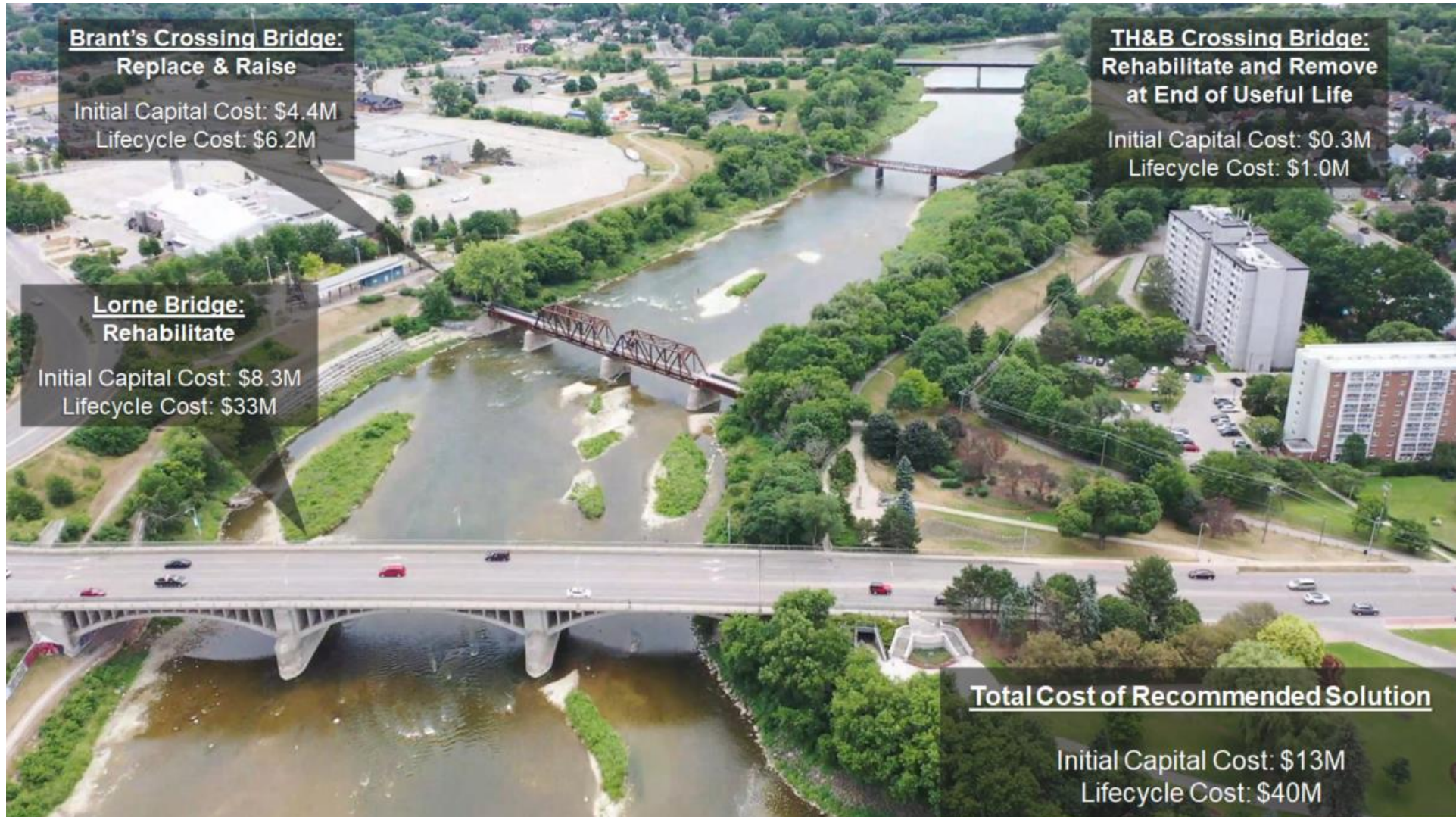
- Address load limit on Lorne Bridge, deterioration of Brant's Crossing Bridge following 2018 ice jam, and deterioration to TH&B Crossing Bridge
- Several options considered including removing one or both pedestrian bridges and building a new structure over the Grand River
- Assessment of technical, economic, social, and environmental factors including active transportation network and risks of future floods due to the location over the Grand River



Other considerations and constraints:

- Adding bike lanes to Lorne Bridge
- Widening Brant's Crossing Bridge
- Archaeological impacts
- Trail network surrounding Bridges
- Graffiti and vandalism

MCEA Recommendations



MCEA concluded in 2022 with unanimous approval from City Council

- **NO NEW CROSSING**
- Strengthening Lorne Bridge to remove load limit
- Raise Brant's Crossing Bridge 1m
- Widen Brant's Crossing Bridge to multi-use path and concrete deck
- Remove TH&B Crossing Bridge after 10-15 years

*2020 dollars

Lorne Bridge Progress



- Strength testing ongoing to determine if strengthening is needed on Lorne Bridge prior to removing load limit. If strengthening not needed, will save approx. \$2 million in construction costs
- Trail under Lorne Bridge being realigned for safety, security, and improved pedestrian and cycling opportunities

Brant's Crossing Bridge Progress



- Brant's Crossing Bridge reopened safely in Winter 2021 after 3 year closure following minor repairs to structure
- Design currently underway for new bridge superstructure to enhance opportunities for tourism

TH&B Crossing Bridge Progress



- Revitalization completed in two phases to sustain Bridge until end of service life:
 - 1 – TH&B Public Art Project to address graffiti on Bridge (2022-2023)
 - 2 – Full deck replacement (October 2023)

TH&B Crossing Public Art

- Minimal project budget – approx. \$25,000
- 112 interior bridge panels painted
- Over 150 community volunteers engaged



Looking toward the future



1. Cockshutt Ball Diamonds
2. Lorne Park
3. Brant and Lorne Towers
4. Brantford and District Civic Centre
5. Elements Casino
6. Downtown Revitalization
7. Colborne Point
8. YMCA
9. Market St. Parkade
10. Sherwood Yard
11. Earl Haig and Community Garden
12. Lorne Bridge Trail Realignment

Questions ?

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