

Land Acknowledgement

We acknowledge the lands which constitute the present-day City of Mississauga as being part of the Treaty Lands and Traditional Territory of the Mississaugas of the Credit First Nation, Haudenosaunee and the Huron-Wendat First Nation. We recognize the ancestors of these peoples as the inhabitants of these lands since time immemorial.

The City of Mississauga is home to First Nations, Métis and Inuit peoples.

Welcome and Introductions

Thank you for attending this virtual public meeting

Councillors:

- Stephen Dasko, Ward 1
- Pat Mullin, Ward 2

Independent Facilitator:

Sue Cumming, Cumming+Company (cumming1@total.net)

Presenters:

- Gino Dela Cruz, City of Mississauga Project Manager (gino.delacruz@mississauga.ca)
- Andrew Shea, HDR Project Manager (<u>Andrew.shea@hdrinc.com</u>)
- Angie Ning, HDR Assistant Project Manager (angie.ning@hdrinc.com)
- Nico Malfara, HDR Project Manager (nico.malfara@hdrinc.com)

Purpose of the Meeting

The purpose of this virtual public meeting is to:



Share information on the Lakeshore Transportation Studies



Provide an overview of the latest project information for the three infrastructure projects



Seek your feedback and respond to questions

Format for the Meeting

The project team will provide a presentation live followed by a question-and-answer period.

You can ask questions or provide comments by typing these into the "Q & A" and the Independent Facilitator will read out the questions for the project team to respond to.

Your name will not be read aloud when questions are asked.

Time permitting, we may be able to have you raise your hand to ask your question.

Public input received through this virtual meeting will be included in a feedback report that will also be posted on the project website.



Other ways to provide your Input

Following this meeting, you are encouraged to visit the project website to review the materials and provide input about each project, available until **April 8, 2021**.

The presentation portion of tonight's meeting will be recorded and posted on the project website.

If you have any questions about this project or would like to be added to the project mailing list, contact the Project Manager at gino.delacruz@mississauga.ca.

mississauga.ca/lakeshore-transportation

Introduction

The Lakeshore **Transportation Studies** include three infrastructure projects in the Lakeview, Port Credit and Clarkson communities that build from the 2019 Lakeshore Connecting Communities Transportation Master Plan.

Lakeshore Bus Rapid Transit (BRT) Study

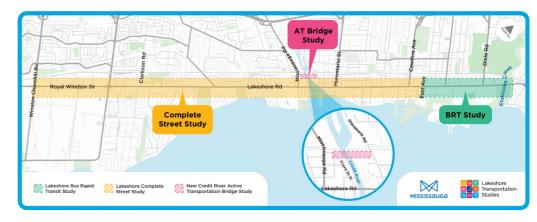
Transit Project Assessment Process (TPAP) under Ontario Regulation 231/08.

Lakeshore Complete Street Study

Schedule C Class EA Study under the Municipal Class Environmental Assessment process (October 2000, as amended in 2007, 2011 and 2015.

New Credit River Active Transportation Bridge Study

Schedule B Class EA Study under the Municipal Class Environmental Assessment process (October 2000, as amended in 2007, 2011 and 2015.



Problem and/or Opportunity Statement

The Lakeshore Transportation Studies adopts the Problem and Opportunity Statement set out in the 2019 Lakeshore Connecting Communities TMP as follows:



Study Process and Timeline

Lakeshore Bus Rapid Transit (BRT) Study

Part A: Transit Project Assessment Process (TPAP) under Ontario Regulation 231/08.*

Spring 2021

Background Review and Pre-TPAP Studies

- Assess Existing Conditio
- Public Open House #1 (Sept 2021)

Winter 2022

Preliminary Design and TPAP

- · Issue Notice of TPAP Commencement
- Public Open House #2
- (March 2022) We sie here
- Jesus Notice of TDAD Completion
- Issue Notice of TPAP Completion

Summer 2022

Project Completion

- · 30 Day Public Review of EP
- 35 Day Minister Review and Decision
- Submit Statement of Completion

Fall 2022

This project has received funding through the Investing in Canada Infrastructure Program (ICIP) and will have an expedited timeline for development. For more information about the funding granted to the City of Mississauga through the ICIP, please read the news release issued by the City in January 2021.

Lakeshore Complete Street Study

Part B: Schedule C Class EA Study under the Municipal Class Environmental Assessment process (October 2000, as amended in 2007, 2011 and 2015).

Phase 1 - Problem or Opportunity

- Assess Existing Conditions
- Public Open House #1 (Sept 2021)

Phase 2 - Alternative Solutions

- Identify Alternative Solutions
- · Evaluate Alternative Solutions
- ★ Public Open House #2 (March 2022) - We are here
- Select Preferred Solution

Phase 3 - Alternative Design Concepts for Proposed Solution

- · Identify Design Concepts for Preferred Solution
- Evaluate Alternative Design Concepts
- Public Open House #3 (Summer 2022)
- Select Preferred Design Concept

Phase 4 - Environmental Study Report (ESR)

- Finalize Preferred Design Concept
- Complete Environmental Study Report (ESR)
- 30 Day Public Review Period
- Issue Notice of Completion

New Credit River Active Transportation Bridge Study

Part C: Schedule B Class EA Study under the Municipal Class Environmental Assessment process (October 2000, as amended in 2007, 2011 and 2015).

Phase 1 - Problem or Opportunity

- Assess Existing Condition
- Public Open House #1 (Sept 2021)

Phase 2 - Alternative Solutions

- Identify Alternative Solutions
 Evaluate Alternative Solutions
- Public Open House #2
- (March 2022) We are he
- Finalize Preliminary Desig
- Document in Project File
- Issue Notice of Completion

What We Heard at the Lakeshore Transportation Studies Public Open House in September 2021

The first Public Open House for the Lakeshore Transportation Studies resulted in a number of common themes heard from the community. All public input has been considered in the subsequent progression of the planning and design work.

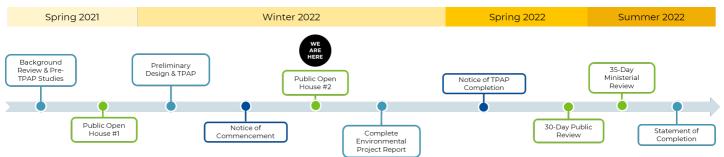
Common Themes Heard:

BRT Study	Complete Street Study	Active Transportation Bridge Study
 Desire to improve cycling infrastructure Support for centre-running bus lane Concerns over pedestrian and cyclist safety Concerns over potential congestion Desire to preserve the natural heritage Desire for traffic calming measures to reduce speeding 	 General support for Alternative 1: mixed traffic Improve pedestrian and cyclist safety Concerns over potential traffic congestion and road safety impacts Desire to preserve natural heritage Promote the use of transit and active transportation 	 General support for Alternative 4: Signature Bridge Desire for minimal environmental impacts. Desire for integration of the bridge into the active transportation network Concerns over potential impact on the rowing clubs' usage of the waterway Desire for separated cyclist and pedestrian lanes on the bridge

As part of the Lakeshore Transportation Studies, the City of Mississauga is developing the preliminary design and completing the Transit Project Assessment Process (TPAP) for the Lakeshore Bus Rapid Transit Project (BRT). A TPAP is an expedited Environmental Assessment process in which the environmental effects of the project are analyzed.

The Lakeshore BRT is planned to extend for two kilometres along Lakeshore Road from the Etobicoke Creek to East Avenue.





The preferred cross-section was applied to the Part A corridor to inform the preliminary design and completion of the Transit Project Assessment Process (TPAP). The design features:



- Separated bike lanes and generous sidewalks
- New centre-running BRT lanes
- New express bus stops in the centre of the street
- Maintain curbside local transit stops in mixed traffic
- Maintain 2 lanes of vehicular traffic in both directions
- Left turn lanes at signalized intersections

BRT Stop Design

BRT Stops will be located in the centre of the roadway, accessed by pedestrians at signalized intersections. The stops will be fully-accessible and will be designed consistent with other City BRT projects (i.e. Dundas BRT). Potential amenities for the Lakeshore BRT Stops include:

- Access ramps and railings
- Weather protection
- Seating
- Fare collection
- Tactile warning strips
- Stop identification and wayfinding signage
- Service maps and next bus information
- Garbage and recycling bins



Example of BRT Stop

Lakeshore Bus Rapid Transit Study – Roll Plan

Montbeck Crescent to Lakefront Promenade



LEGEND

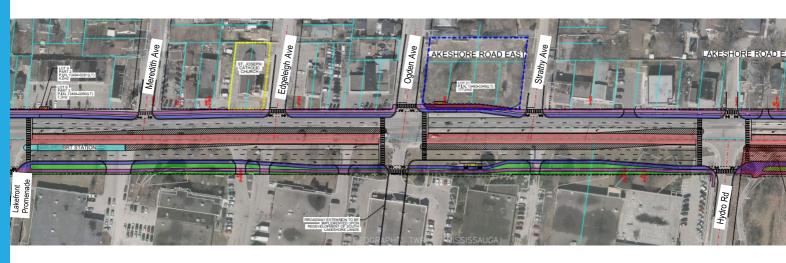
PROPOSED BRT LANE PROPOSED BRT STATION PROPOSED BUS SHELTER PROPOSED SIDEWALK PROPOSED CYCLE TRACK PROPERTY REQUIREMENTS

*Potential impacts under review and to be coordinated with development review process and Lakeshore Road Study.

EXISTING ROW APPROXIMATE GRADING LIMIT -----PROPERTY LINES

Lakeshore Bus Rapid Transit Study – Roll Plan

Lakefront Promenade to Hydro Road

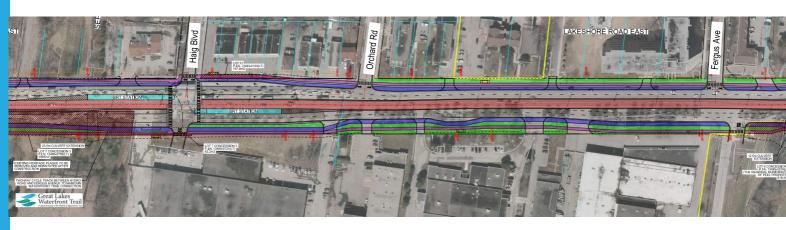


LEGEND



Lakeshore Bus Rapid Transit Study – Roll Plan

Hydro Road to Fergus Avenue



LEGEND



Lakeshore Bus Rapid Transit Study - Roll Plan Fergus Avenue to Etobicoke Creek



LEGEND

PROPOSED BRT LANE PROPOSED BRT STATION PROPOSED BUS SHELTER PROPOSED SIDEWALK

PROPOSED CYCLE TRACK PROPERTY REQUIREMENTS *Potential impacts under review and to be coordinated with development review process and Lakeshore Road Study.

EXISTING ROW APPROXIMATE GRADING LIMIT -----PROPERTY LINES

Key Impacts and Mitigation

The draft Lakeshore BRT design has been progressed from the concept design in the Lakeshore Connecting Communities Master Plan to a 10% level of design. The 10% design provides a reasonable estimate of the infrastructure and property requirements and was used as a basis for estimating the impacts of the project.

Category	Key Impacts	Mitigation Measures
Natural Environment	 No permanent impacts to endangered species or species at risk anticipated Fish habitat and woodlots impacted at watercourse crossings Loss of edge vegetation and street trees 	 Erosion and Sediment Control Plan Construction will be timed to minimize impacts on wildlife and wildlife habitat Tree Preservation Plan
Cultural Heritage	One Built Heritage Resource (Plaque commemorating Long Branch Aerodrome) two Cultural Heritage Landscapes (Arsenal Lands, 1300 Lakeshore Road East)	 Plaque will be removed and restored to the original location after construction Undertake a Heritage Impact Assessment for each Cultural Heritage Landscape
Noise & Air	 Not anticipated to introduce significant long-term noise, vibration, or air quality impacts Temporary / short duration impacts from construction (noise, dust, etc.) 	Construction will apply best practices to minimize Air Emissions from Construction and Demolition Activities
Road Access	 Left-turns restricted to signalized intersections only Construction will require temporary lane closures 	 U-Turns provided at all signalized intersections Detours and advance notice
Property	 Property required in the east end where the ROW is reduced No full property takings required Minor localized property impacts for bus stops, auxiliary lanes 	Consultation with property owners regarding property acquisition will be initiated closer to the time of construction

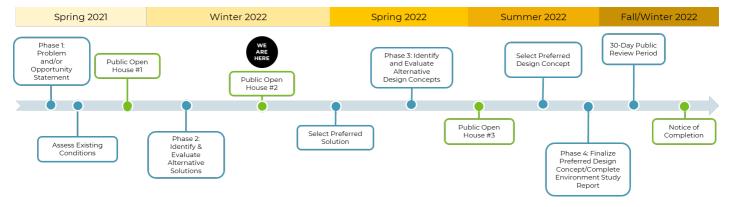
Lakeshore Complete Street Study

Lakeshore Complete Street Study

As part of the Lakeshore Transportation Studies, the City is developing the preliminary design and completing the Schedule C Class Environmental Assessment (EA) for Lakeshore Road and Royal Windsor Drive.

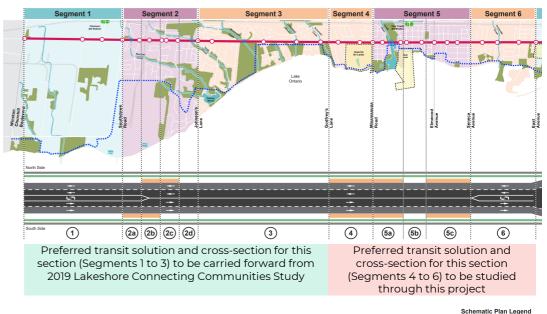
This study will consider a 'Complete Street' approach to improve the experience for people travelling along the Lakeshore corridor from East Avenue to the Oakville border.





Lakeshore Complete Street Study

The 2019 Lakeshore Connecting Communities Study (Phase 1 and 2 of Transportation Master Plan Process) recommended the following preferred solution for the section of Lakeshore Road and Royal Windsor Drive from East Avenue to Winston Churchill Bouleyard.





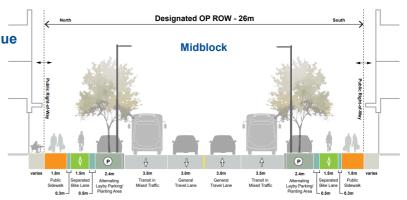
Lakeshore Road from Godfrey's Lane to East Avenue

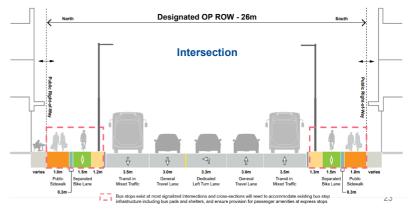
*In addition to the four alternatives below, a "Do Nothing" scenario was also carried forward for comparison purposes in the EA process. The "Do Nothing" scenario offers no improvements to the existing condition.

Alternative 1 - Mixed Traffic

This alternative proposes to have both local and express buses running in mixed traffic with localized transit priority and stop infrastructure enhancements at intersections/express stop locations.







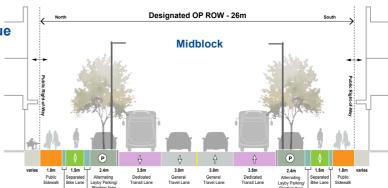
Lakeshore Road from Godfrey's Lane to East Avenue

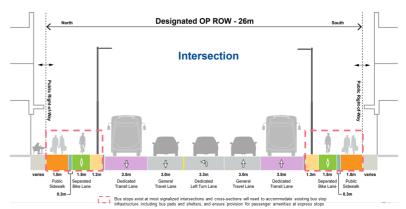
Alternative 2 - Dedicated Curbside

proposes to convert two existing curbside lanes to transit only lanes and have one lane in each direction for general-purpose traffic. Both local and express buses will be running in the dedicated curbside lane.



Photo Source: City of Toronto





*Cross-sections are subject to change based on preliminary design

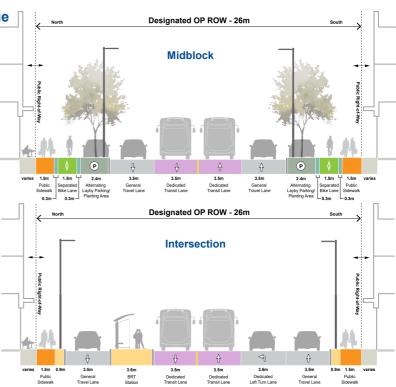
Lakeshore Road from Godfrey's Lane to East Avenue

Alternative 3 – Dedicated Centre Express proposes to convert two existing lanes to transit only lanes and have one lane in each direction for general-purpose traffic. Express buses will be running in the dedicated centre lane and local buses will be running in mixed traffic. Cycling facilities cannot be accommodated continuously without





corridor widening.

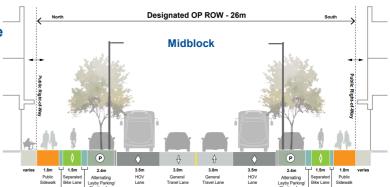


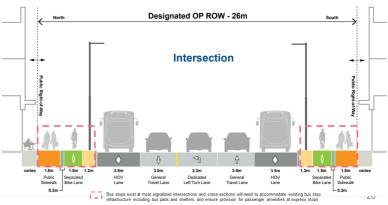
Lakeshore Road from Godfrey's Lane to East Avenue

Alternative 4 - HOV proposes to convert two existing lanes to high-occupancy vehicle (HOV) lanes, reserving one lane in each direction for general-purpose traffic. Both express and local buses will be running in the HOV lane.



Photo Source: Shutterstock



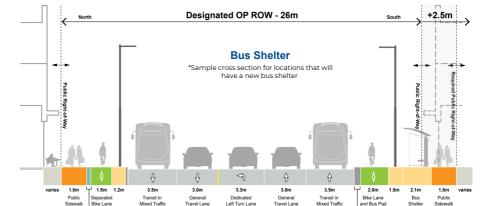


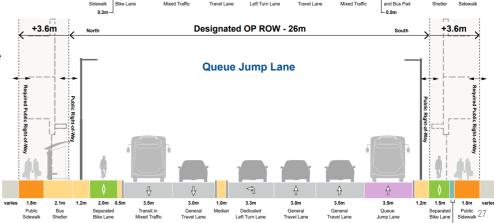
*Cross-sections are subject to change based on preliminary design

Potential Additional Transit Priority

Localized transit priority measures can be applied to the preferred planning solutions at intersections to provide benefits to transit operations in the corridor. These include (but are not limited to) transit signal priority, specific turning movement restrictions, queuejump lanes, etc.

The location and impacts of additional transit priority measures and transit supporting infrastructure such as queue jump lanes and bus shelters will be further considered in the next phase of the EA process for the preferred planning alternative.





Evaluation Criteria

The following criteria were used to evaluate alternative solutions and alternative design concepts for the Lakeshore Complete Street Study:











Mobility

- City Policy Alignment
- Walking/ cycling, transit and driving experience
- Equity

Quality of Place and Prosperity

- Public Realm
- Cultural Environment
- Programming and retail activity
- Resilience and Sustainability

Environment

- Terrestrial
 Habitat/Wildlife
- · Air Quality
- Soil Quality
- Water Quality

Public Health and Safety

- · Public Health
- Safety

Affordability

- Capital Cost
- Operational Cost
- Construction Complexity

Evaluation

Legend	
+	Supports project outcomes
0	Somewhat supports project outcomes
-	Does not support project outcomes







	Do nothing	Alternative 1 Mixed traffic	Alternative 2 Dedicated Curbside	Alternative 3 Dedicated Centre	Alternative 4 HOV Lane
Walking experience	-	+	+	0	+
Cycling experience	-	+	+	0	+
Transit experience	-	0	+	+	+
Driving Experience	+	+	-	-	0
Equity	-	+	+	0	+
Habitat & Wildlife	+	+	+	+	+
Hydrology	+	+	+	0	+
Air quality	-	0	+	+	+
Soil Quality	+	+	+	+	+
Water Quality	+	+	+	+	+
Supports active communities	-	+	+	0	+
Supports safety for all modes	-	+	+	0	+
Support safety for driving	0	0	0	+	0
Emergency vehicle operation	0	0	+	+	+

Evaluation





	Do nothing	Alternative 1 Mixed traffic	Alternative 2 Dedicated curbside	Alternative 3 Dedicated centre	Alternative 4 HOV Lane
Public realm	-	+	+	0	+
Retail activity	0	0	0	-	0
Cultural environment	+	+	+	+	+
Sustainability	-	0	+	0	+
Capital costs	+	0	0	-	0
Operational costs	+	0	0	-	0
Construction complexity	+	O	0	-	0
	Least Preferred- Do	Most Preferred - This	Less Preferred - This	Less Preferred - This	Less Preferred - This

Summary

Least Preferred- Do Nothing does not support overall project objectives. No improvement is made.

Most Preferred - This alternative achieves an overall improvement to all modes under all evaluation categories. The driving experience sees minimal impact and the transit experience will be improved with the introduction of transit priority measures at key intersections. This Alternative is chosen as the most preferred alternative for its' balanced results for all lisers.

alternative achieves an overall benefit for all modes in all evaluation categories. However, the driving experience is slightly worsened, and transit experience is improved with slighted faster run times.

alternative achieves the greatest transit improvements with the fastest run times. However, major tradeoffs must be made with all other evaluation categories. This alternative has somewhat more impacts to other modes within the corridor.

Less Preferred - This alternative achieves an overall improvement to all modes under all evaluation categories. The driving experience sees a moderate impact and the transit experience will be improved with the introduction of transit priority measures at key intersections.

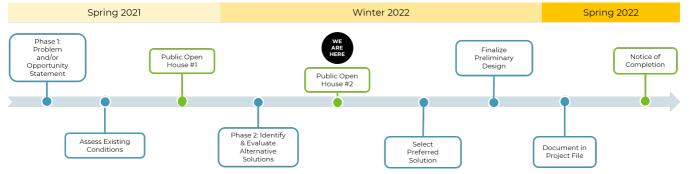


New Credit River Active Transportation Bridge Study

As part of the Lakeshore Transportation Studies, the City is developing the preliminary design and completing the Schedule B Class EA for a new active transportation bridge over the Credit River north of Lakeshore Road.

This bridge will enhance mobility across the river for people walking, rolling, and cycling.





Alternative Bridge Design Solutions (Phase 2)

Four alternative bridge design solutions have been identified and will be evaluated in Phase 2 of the New Credit River Active Transportation Bridge Study (Schedule B Class EA). In addition to the four alternatives below, a "Do Nothing" scenario was also carried forward for comparison purposes in the EA process. The "Do Nothing" scenario offers no improvements to the existing condition.

Alternative 1: Conventional Bridge



Screened Out - In-water piers have a significant environmental; due to the environmental sensitivity of the area, Alternative 1 is not a viable option.

Alternative 2: Expand GO Bridge



Screened Out – Not structurally feasible to expand the deck to meet the desired width for the active transportation crossing. Based on discussion with Metrolinx, the GO Bridge is to be used exclusively as rail corridor.

Alternative 3: Truss Bridge



Carry Forward – Given the length and width of the bridge a Truss bridge is a viable option to remove the requirement for in-water piers.

For this Alternative, a **Through Truss** bridge was used for evaluation purposes.

Alternative 4: Signature Bridge



Carry Forward – A signature bridge can span the length of the bridge and is a visually appealing, viable option.

For this Alternative, a **Network-Tied Arch** bridge was used for evaluation purposes.

Description of Alternatives

*The following bridge types were used for evaluation purposes. It should be noted that the design of the preferred bridge is subject to change based on context-specific requirements in future phases of the project.

Alternative 3:

A Through Truss Bridge is a bridge type with a long history of being used as pedestrian, vehicular, and railway bridges. These bridge types are generally an economical choice. They are typically prefabricated offsite and assembled on-site in a relatively short amount of time and lifted into the final position.

Alternative 4:

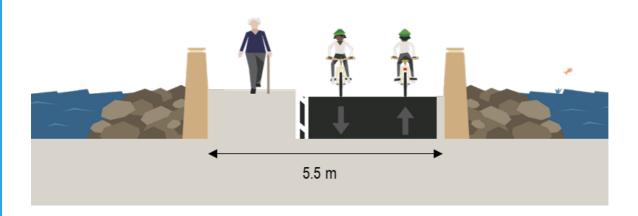
A Network Tied Arch bridge is a type of signature bridge. The bridge has inclined hangers and are custom designed to meet context-specific requirements. They are typically more costly but provide a strong aesthetic quality. They are efficient lightweight structures and can be assembled in a staging area adjacent to the site and lift into place with cranes.



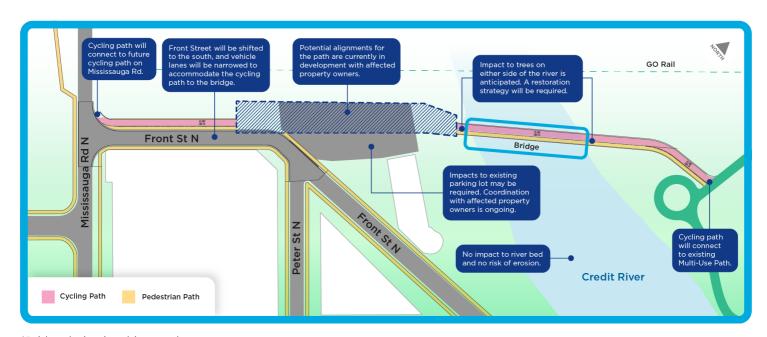


Preferred Bridge Cross-Section

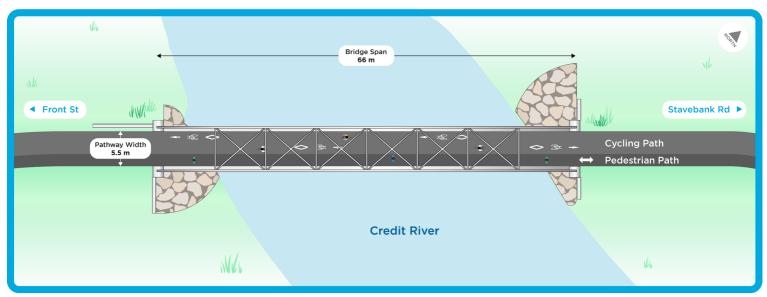
Both Bridge Alternatives will have separated cycling and pedestrian facilities, be integrated with existing trails and cycling routes, and be universally accessible.



Alternative 3 and 4 Preferred Bridge Layout



Alternative 3 and 4 Preferred Bridge Layout



^{*}Bridge design is subject to change

Evaluation Criteria

The following criteria were used to evaluate the preferred alternative design solutions for the New Credit River Active Transportation Bridge Study:











Mobility

- Walking/ cycling, transit and driving experience
- Equity

Quality of Place and Prosperity

- Public Realm
- Cultural Environment
- Programming and retail activity
- Resilience and Sustainability

Environment

- Terrestrial Habitat/ Wildlife
- Air Quality
- Soil Quality
- Water Quality

Public Health and Safety

- Public Health
- Safety

Affordability

- Capital Cost
- Operational Cost
- Construction Complexity

Evaluation

Legend	
+	Supports project outcomes
0	Somewhat supports project outcomes
-	Does not support project outcomes









	Do nothing	Alternative 3 Through Truss	Alternative 4 Signature Bridge (Tied- Arch)
Walking experience	-	+	+
Cycling experience	-	+	+
Equity	-	+	+
Visual impact	+	-	+
Noise & vibration	+	+	+
Public realm	-	+	+
Cultural environment	+	+	+
Sustainability	-	+	+
Terrestrial habitat & wildlife	+	0	o
Air quality	-	+	+
Soil quality	+	0	0
Water quality	+	0	0

Evaluation





	Do nothing	Alternative 3 Through Truss	Alternative 4 Signature Bridge (Tied-Arch)
Supports active communities	-	+	+
Supports safety for all modes	-	+	+
Capital costs	+	o	-
Operational costs	+	0	0
Construction complexity	+	o	-
	Least Preferred- the Do	Less Preferred - the Through-	Most Preferred - the Tied-Arch

Nothing Alternative does Summary not address the problem/opportunity statement or the active transportation goals and objectives in the area.

Less Preferred - the Through-Truss alternative supports the area's overall active transportation goals and objectives and performs comparatively to Alternative 4 in terms of level of impact. However, the a Through-Truss bridge does not provide any that reflects the community.

Most Preferred - the Tied-Arch alternative supports the area's overall active transportation goals and objectives and performs comparatively to Alternative 3 in terms of level of impact. A Tied Arch design allows for greater aesthetic design that can reflect community context, and promote opportunity for aesthetic design greater visual integration in the surrounding environment, however additional capital costs is required for design effort.

Next Steps

Lakeshore Bus Rapid Transit (BRT) Study

- Finalize preliminary design, impact, and mitigation
- Document in the Environmental Project Report (EPR)

Lakeshore Complete Street Study

- Use feedback from the public to confirm the preferred alternative transit solution
- Identify alternative design concepts for preferred solution
- Present the preferred design concept at the next Public Open House in Summer 2022

New Credit River Active Transportation Bridge Study

- Use feedback to confirm preferred bridge design solution
- Finalize preliminary design
- · Document in Project File
- Issue Notice of Completion

Thank you for participating in this Public Open House, your input is very valuable to us!

Public open houses will take place throughout the process to present findings and receive public input. All open houses are planned to take place virtually at this time.

If you have any questions about this project or would like to be added to the project mailing list, contact the Project Manager at gino.delacruz@mississauga.ca.